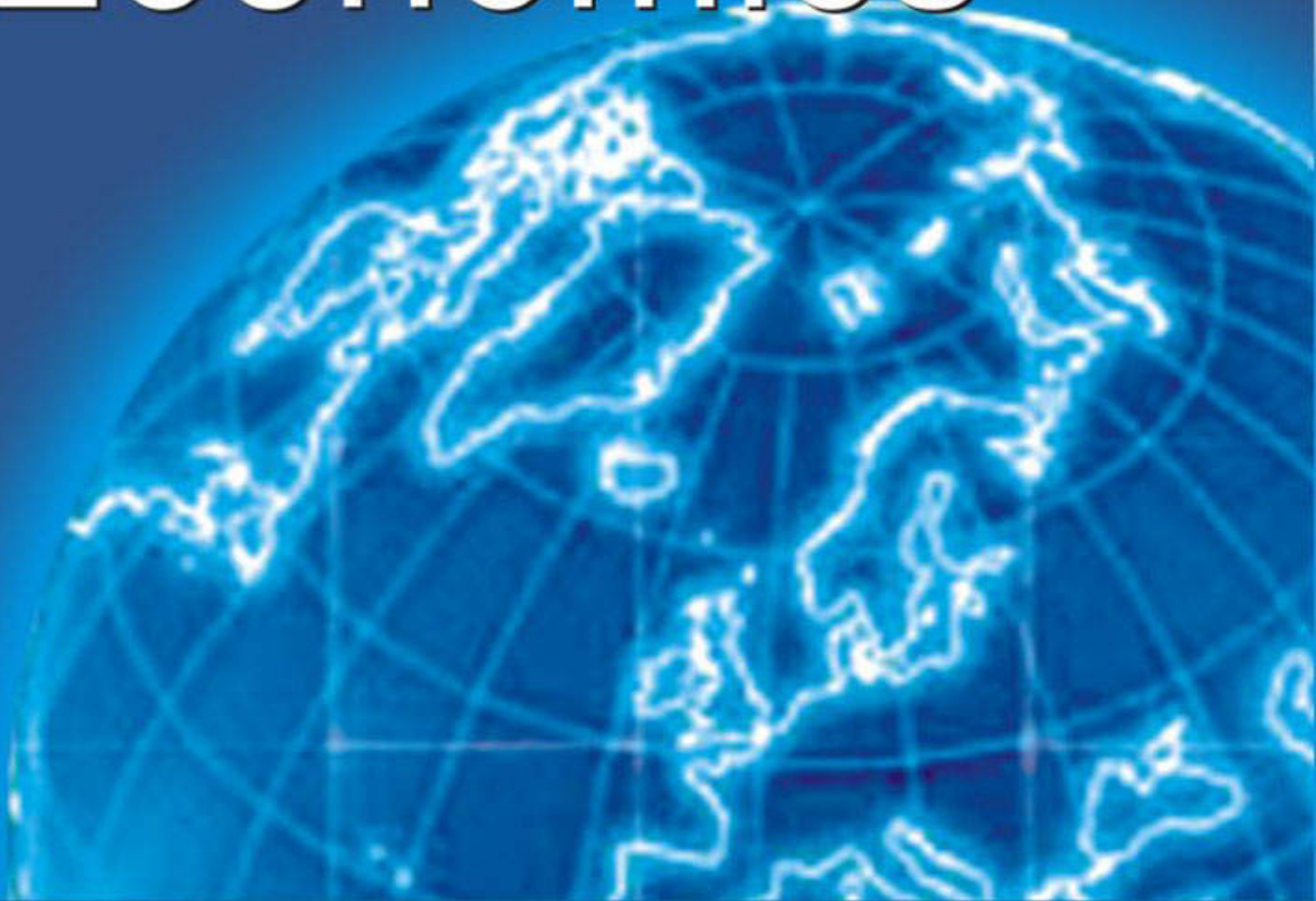


6th Edition

International Economics



M.L. Jhingan



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6th

Revised and Enlarged Edition

M.L. JHINGAN
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Higher Education, Haryana



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PREFACE TO THE SIXTH EDITION

It is gratifying that this book which was first published in 1986 has been patronised by both teachers and students in India and abroad.

The present edition is in a new get-up with new diagrams and some changes in the text. Besides the following chapters have been rewritten :

- **The European Union (EU).**
- **The World Trade Organisation (WTO)**
- **Foreign Trade and Balance of Payments in India.**
- **Foreign Capital in India.**

The new chapters added are :

- **ASEAN and NAFTA.**
- **The European Monetary System and the Euro.**

I thank Shri Chandar Kant, P.G. Department of Economics, Government College, Hissar for assisting me in revising this edition.

I hope the present edition will prove more useful to candidates preparing for M.A., N.E.T., I.E.S., Civil Services and other competitive examinations.

Suggestions to improve the book are welcome.

M.L. JHINGAN

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PREFACE TO THE FIRST EDITION

The book deals with theory and policy of international trade. International economics being a complex subject, the reader is first introduced to its basic tools and then the various theories, problems and policies are discussed in a simple, coherent, comprehensive and critical manner.

The book is divided into four part. *Part One* discusses the distinguishing features of international trade, its theoretical tools, classical theory of comparative costs, Mill's theory, H-O theorem, factor price equalisation, factor intensity reversals, Stopler-Samuelson and Rybczynski theorems, empirical testing of theories, economic growth and trade, gains from trade, and terms of trade. *Part Two* deals with the various aspects of commercial policy such as free trade, protection, tariffs, import quotas, exchange control, and international economic integration. *Part Three* analyses the problems, theories, policies and adjustment mechanisms of balance of payments. *Part Four* examines some of the problems of international economic relations with reference to developing countries, such as foreign trade, commercial policy, terms of trade, foreign aid, private foreign investment and multinationals. There are also chapters on IMF, World Bank, foreign trade and balance of payments in India, and foreign capital in India.

I thank my students on whom the various parts of the book were tested. But they are not responsible for errors contained in it. Mr. Chandar Kant, Lecturer in Economics, deserves special mention for helping me in vairous ways in bringing out this book.

Bibliography and footnotes reveal my indebtedness to different writers on the subject.

I crave the indulgence of students and teachers to make suggestions for the improvement of the book which shall be most welcome.

The book is primarily meant for candidates preparing for M.A., M.Com., Civil Services, IES and other examinations.

M.L. JHINGAN

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PART ONE

THE PURE THEORY OF INTERNATIONAL TRADE



DISTINGUISHING FEATURES OF INTER- REGIONAL AND INTERNATIONAL TRADE

1. INTRODUCTION

Inter-regional trade refers to trade between regions within a country. It is what Ohlin calls inter-local trade. Thus inter-regional trade is domestic or internal trade. International trade, on the other hand, is trade between two nations or countries. A controversy has been going on among economists whether there is any difference between inter-regional or domestic trade and international trade. The classical economists held that there were certain fundamental differences between inter-regional trade and international trade. Accordingly, they propounded a separate theory of international trade which is known as the Theory of Comparative Costs. But modern economists like Bertil Ohlin and Haberler contest this view and opine that the

differences between inter-regional and international trade are of degree rather than of kind.

2. DIFFERENCE BETWEEN INTER-REGIONAL AND INTERNATIONAL TRADE

Nevertheless, there are several reasons to believe the classical view that international trade is fundamentally different from inter-regional trade.

1. Factor Immobility. The classical economists advocated a separate theory of international trade on the ground that factors of production are freely mobile within each region as between places and occupations and immobile between countries entering into international trade. Thus, labour and capital are regarded as immobile between countries while they are perfectly mobile within a country. There is complete adjustment to wage differences and factor-price disparities within a country with quick and easy movement of labour and other factors from low return to high sectors. But no such movements are possible internationally. Price changes lead to movement of goods between countries rather than factors. The reasons for international immobility of labour are—difference in languages, customs, occupational skills, unwillingness to leave familiar surroundings, and family ties, the high travelling expenses to the foreign country, and restrictions imposed by the foreign country on labour immigration. The international mobility of capital is restricted not by transport costs but by the difficulties of legal redress, political uncertainty, ignorance of the prospects of investment in a foreign country, imperfections of the banking system, instability of foreign currencies, mistrust of the foreigners, etc. Thus, widespread legal and other restrictions exist in the movement of labour and capital between countries. But such problems do not arise in the case of inter-regional trade.

2. Differences in Natural Resources. Different countries are endowed with different types of natural resources. Hence they tend

to specialise in production of those commodities in which they are richly endowed and trade them with others where such resources are scarce. In Australia, land is in abundance but labour and capital are relatively scarce. On the contrary, capital is relatively abundant and cheap in England while land is scarce and dear there. Thus, commodities requiring more capital, such as manufactures, can be produced in England; while such commodities as wool, mutton, wheat, etc. requiring more land can be produced in Australia. Thus both countries can trade each other's commodities on the basis of comparative cost differences in the production of different commodities.

3. Geographical and Climatic Differences. Every country cannot produce all the commodities due to geographical and climatic conditions, except at possibly prohibitive costs. For instance, Brazil has favourable climate geographical conditions for the production of coffee; Bangladesh for jute; Cuba for beet sugar; etc. So countries having climatic and geographical advantages specialise in the production of particular commodities and trade them with others.

4. Different Markets. International markets are separated by difference in languages, usages, habits, tastes, fashions etc. Even the systems of weights and measures and pattern and styles in machinery and equipment differ from country to country. For instance, British railway engines and freight cars are basically different from those in France or in the United States. Thus goods which may be traded within regions may not be sold in other countries. That is why, in great many cases, products to be sold in foreign countries are especially designed to conform to the national characteristics of that country. Similarly, in India right-hand driven cars are used whereas in Europe and America left-hand driven cars are used.

5. Mobility of Goods. There is also the difference in the mobility of goods between inter-regional and international markets. The mobility of goods within a country is restricted by only geographical distances and transportation costs. But there are many tariff and non-tariff

barriers on the movement of goods between countries. Besides export and import duties, there are quotas, VES, exchange controls, export subsidies, dumping, etc. which restrict the mobility of goods at international plane.

6. Different Currencies. The principal difference between inter-regional and interantional trade lies in use of different currenccais in foreign trade, but the same currency in domestic trade. Rupee is accepted throughout India from the North to the South and from the East to the West, but if we cross over to Nepal or Pakistan, we must convert our rupee into their rupee to buy goods and services there.

It is not the differences in currencies alone that are important in international trade, but changes in their relative values. Every time a change occurs in the value of one currency in terms of another, a number of economic problems arise. "Calculation and execution of monetary exchange transactions incidental to international trading constitute costs and risks of a kind that are not ordinarily involved in domestic trade." ¹ Further, currencies of some countries like the American dollar, the British pound the Euro and Japanese yen, are more widely used in international transactions, while others are almost inconvertible. Such tendencies tend to create more economic problems at the international plane. Moreover, different countries follow different monetary and foreign exchange policies which affect the supply of exports or the demand for imports. "It is this difference in policies rather than the existence of different national currencies which distinguishes foreign trade from domestic trade," according to Kindleberger. ²

¹. H.B. Killough and L.W. Killough, *Economics of International Trade*, 1948.

². C.B. Kindleberger, *International Economics*, 5/e, 1973.

7. Problem of Balance of Payments. Another important point which distinguishes international trade from inter-regional trade is the problem of balance of payments. The problem of balance of payments is perpetual in international trade while regions within a

country have no such problem. This is because there is greater mobility of capital within regions than between countries. Further, the policies which a country chooses to correct its disequilibrium in the balance of payments may give rise to a number of other problems. If it adopts deflation or devaluation or restrictions on imports or the movement of currency, they create further problems. But such problems do not arise in the case of inter-regional trade.

8. Different Transport Costs. Trade between countries involves high transport costs as against inter-regionally within a country because of geographical distances between different countries.

9. Different Economic Environment. Countries differ in their economic environment which affects their trade relations. The legal framework, institutional set-up, monetary, fiscal and commercial policies, factor endowments, production techniques, nature of products, etc. differ between countries. But there is no much difference in the economic environment within a country.

10. Different Political Groups. A significant distinction between inter-regional and international trade is that all regions within a country belong to one political unit while different countries have different political units. Inter-regional trade is among people belonging to the same country even though they may differ on the basis of castes, creeds, religions, tastes or customs. They have a sense of belonging to one nation and their loyalty to the region is secondary. The government is also interested more in the welfare of its nationals belonging to different regions. But in international trade there is no cohesion among nations and every country trades with other countries in its own interests and often to the detriment of others. As remarked by Friedrich List, "Domestic trade is among us, international trade is between us and them."

11. Different National Policies. Another difference between inter-regional and international trade arises from the fact that policies relating to commerce, trade, taxation, etc. are the same within a country. But in international trade there are artificial barriers in the form of quotas, import duties, tariffs, exchange controls, etc. on the

movement of goods and services from one country to another. Sometimes, restrictions are more subtle. They take the form of elaborate custom procedures, packing requirements, etc. Such restrictions are not found in inter-regional trade to impede the flow of goods between regions. Under these circumstances, the internal economic policies relating to taxation, commerce, money, incomes, etc. would be different from what they would be under a policy of free trade.

Conclusion. Therefore, the classical economists asserted on the basis of the above arguments that international trade was fundamentally different from domestic or inter-regional trade. Hence, they evolved a separate theory for international trade based on the principle of comparative cost differences.

3. SIMILARITIES BETWEEN INTER-REGIONAL AND INTERNATIONAL TRADE

Bertil Ohlin shows that there is little difference between inter-regional and international trade. International values are, therefore, determined in the same way as they are determined in internal trade. According to him, "International trade is but a special case of inter-local or inter-regional trade." Therefore, he does not find any justification for a separate theory of international trade. He adduces a number of arguments in support of his answer.

Ohlin does not accept the classical argument that labour and capital are freely mobile within a country but immobile internationally. He argues that labour and capital are also immobile inter-regionally within a country. This is apparent from the fact that wage rates differ not only in different trades but also in the same trades in different regions within the same country. Similarly, interest rates vary for different purposes in different regions.

Further, labour and capital are not immobile between countries. Rather, labour and capital have moved from one country to the other.

The rapid development of the USA, Australia, New Zealand, Canada and the Latin American Countries in the 19th and early 20th centuries has been due to the movement of labour and capital from England and Europe.

According to Ohlin, the basis of international trade is not much different from inter-regional trade. In both, space factor is important and goods move from places of abundant supplies to places where they are scarce. Transport costs are involved in both. Trade is carried on by firms for the purpose of maximising profits both in international and inter-regional trade.

So far as currency differences in international trade are concerned, they do not necessitate a separate theory. The rate of exchange between two countries is connected together on the basis of the purchasing power of the two currencies. Since the currency of one country is convertible into the currency of another country, there is no basic difference between international trade and inter-regional trade.

Last but not the least, Ohlin argues that the theory of comparative costs is not applicable to international trade alone but to all trade within a country. It is inherent in the principle of specialisation that an individual will devote his abilities to those pursuits for which he is best suited. For example, the manager of a firm may be able to repair his motorcar more cheaply and efficiently than a mechanic at a garage, but he does not do so because his time and energy can be more profitably employed in attending to his business.

As put by Ohlin: "Regions and nations specialise and trade with each other for the same reasons that individuals specialise and trade. Some are better fitted by temperament for one work rather than another; one is a better gardener, the other a better teacher, while the third proves an excellent doctor. The gardener would prove a poor teacher and teacher a poor doctor, and so on. Thus, the gain from specialisation is clear. Even if every individual were equally alike in ability it would pay to specialise." This fundamental principle of specialisation which permeates all walks of life, applies in exactly

the same way and with the same force, to international trade. Thus, the application of the principle of comparative costs to international trade is unnecessary because it is the basis of all trade. Ohlin emphasises in this connection, "As nations are certainly the most significant of all regions, so that theory of international trade represents the chief application of the general theory of inter-regional trade."

He, therefore, believes that there is no need for a separate theory of international trade and regards international trade as "a special case of inter-local or inter-regional trade." Prices of internationally traded goods are determined in the same way as the prices of goods are determined inter-regionally. The basis of determination of prices in inter-regional trade is the general equilibrium of demand and supply which is also applicable to international trade without substantial changes. Differences existing between countries, as are based on tariff barriers, currency differences, differences of language, customs, habits, tastes, etc. are differences of degree and not differences of kind. As a matter of fact, they do not obstruct the free flow of goods and services internationally. Hence, there is practically little difference between international trade and inter-regional trade.

CONCLUSION

But we do not agree with Prof. Ohlin that there is no intrinsic difference between international and inter-regional trade. In reality, there are sharp differences between international trade and inter-regional trade. Every country has its own currency in which its nationals can buy and sell goods freely within the country. But it is not possible to buy goods from foreign countries and to sell them because of the various restrictions imposed by each country on them. Foreign currencies are neither available freely nor convertible easily. In inter-regional trade the problem of exchange rates, balance of payments and of tariffs do not arise at all, whereas they are part and parcel of international trade. It is to solve the problems arising from the international trade that the IMF, the GATT, and the UNCTAD have been created which have no concern with inter-regional trade.

Not only this, innumerable theories and models dealing with micro and macro parts of international trade have been formulated by Heckscher, Ohlin, Samuelson, Leontief, Johnson, Bhagwati and others which are quite distinct from the theories dealing with internal trade. This proves that international trade needs a separate study and is in no way similar to inter-regional trade. As aptly put by Kindleberger, "International trade is treated as a distinct subject because of tradition, because of the urgent and important problems presented by international economic questions in the real world, because it follows different laws from domestic trade, and because its study illuminates and enriches our understanding of economics as a whole."

EXERCISES

1. Explain the fundamental differences between international trade and inter-regional trade.
2. "International trade should be regarded as a special case of inter-regional trade or perhaps rather inter-local trade." Examine this statement fully.
3. "Differences between domestic and international trade are of degrees and not of kind". Do you agree with this view or not? Give reasons. Is there any basis for a separate theory of international trade?



INTERNATIONAL TRADE EQUILIBRIUM: SOME ANALYTICAL TOOLS

1. INTRODUCTION

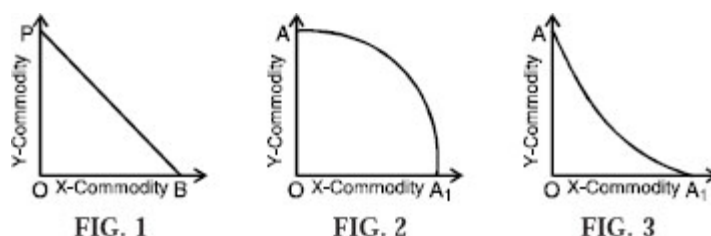
The neo-classical economists, such as Haberler¹, Leontief², and Meade³, have introduced some analytical tools in the theory of international trade. They are the production possibility curve, the community indifference curve, and the trade indifference curve respectively. They have been used extensively alongwith Marshall's offer curves in trade theory to analyse general equilibrium. We explain these concepts in this chapter so as to facilitate their use in subsequent chapters.

2. THE PRODUCTION POSSIBILITY CURVE

A production possibility curve represents the *supply side* in international trade equilibrium. *It shows the various alternative combinations of the two commodities that a country can produce most efficiently by fully utilising its factors of production with the available technology.* It is based on the concept of opportunity costs. The slope of production possibility curve measures the amount of one commodity that a country must give up in order to get an additional unit of the second commodity. In other words, the slope of

production possibility curve whether a straight line or a curvature, is negative.

The slope of the production possibility curve depends on cost conditions operating in an economy. Under constant opportunity costs, the production curve is a straight line, shown as PB in Fig. 1. The production possibility curve under increasing opportunity costs is *concave* to the origin, shown as AA_1 in Fig. 2. Under decreasing opportunity costs, the production possibility curve is *convex* to the origin, shown as AA_1 in fig 3.⁴



The production possibility curve, as a tool of analysis, has been used by Haberler as a refinement to the classical theory of international trade. But the production possibility curve does not tell what will, in fact, be produced. It merely sets out what the possibilities are.⁵ More information is needed for this purpose on the demand side.

^{1.} G. Haberler, *The Theory of International Trade*, 1936.

^{2.} W.W. Leontief, "The Use of Indifference Curve in the Analysis of Foreign Trade", *QJE*, May 1933.

^{3.} J.E. Meade, *A Geometry of International Trade*, 1952.

^{4.} Students should read the explanation given in Ch. 6 for their use in the pure theory of international trade.

^{5.} Charles P. Kindleberger, *International Economics*, 5/e, 1979.

3. THE COMMUNITY INDIFFERENCE CURVE

A community indifference curve or social indifference curve represents the *demand side* in international trade equilibrium. A *community indifference curve* shows the various combinations of two commodities which yield the same satisfaction to the community.

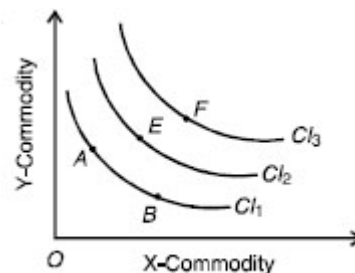


FIG. 4

Community indifference curves can be drawn by aggregating the various individual tastes in a country. Community indifference curves have the same characteristics as individual indifference curves. Fig. 4 shows a map of community indifference curves as represented by Cl_1 , Cl_2 , and Cl_3 curves. All points on the Cl_1 curve, such as A and B , give equal satisfaction to the community. A higher community indifference curve gives higher level of satisfaction to the community, such as point E on the Cl_2 curve which gives higher satisfaction to the community than points A and B on the Cl_1 curve, and point F on the Cl_3 curve gives higher satisfaction than point E on the lower curve Cl_2 . In other words, the farther the curve is away from the origin, the greater the utility it represents. Further, the community indifference curves are downwards sloping from left to right or negatively inclined. They are *convex* to the origin. The absolute slope of a community indifference curve at any point is its marginal rate of substitution (MRS), *i.e.* “the amount of a commodity which the nation is willing to give up to obtain one additional unit of other commodity and still remain on the same indifference curve.”

Last but not the least, community indifference curves must not *intersect*. It implies that income and tastes of all residents of the country must be identical.

ITS CRITICISMS

The use of community indifference curves in international trade theory has been severely criticised. The points of criticism arise from the assumptions of constant tastes and income distribution of country. But these assumptions are unrealistic.

1. Aggregation of Individual Tastes not possible. It is not possible to aggregate individual tastes for constructing community indifference curves. Moreover, the tastes of the community are not consistent with the taste of an individual from one period to another. As a matter of fact, tastes differ from individual to individual and overtime. "Again, if tastes change, a new indifference map is needed, and one cannot even say that a single country is better off *ordinally*, compared with the position before the change in tastes."

2. Based on Cardinal Utility. The community indifference curve analysis is based on cardinal rather than ordinal utility. It involves transitivity when one says that CI_2 is higher than CI_1 and CI_3 is higher than CI_2 , so that CI_3 is higher than CI_1 . But in no case one can say by how much without an explicit social welfare function, which converts ordinal into measurable cardinal utility. Moreover, "it is not possible to compare the distances between two community indifference curves of two countries without an international social welfare function, which says that a dollar of gain for one country is equal to one dollar (or two dollars or fifty cents) of gain for the other."⁶

3. Difficult to Measure Price Changes. In the real world, according to Kindleberger, "It is operationally difficult, approaching impossibility to measure the change in prices before and after trade, or, from a given trading position, to estimate how much prices would be changed if trade were suddenly eliminated."

4. Problem of Interpersonal Comparisons. The community indifference curves embody interpersonal comparisons of utility. Scitovsky tries to overcome this difficulty by constructing community indifference curves on the basis of the compensation principle. If it is clear that the beneficiaries of a change in price have enough additional income to compensate (or bribe) the losses for their loss, and some left over, the new position represents an improvement. But the Scitovsky principle is also not free from interpersonal comparisons.

5. Community Indifference Curves not Independent of Income Distribution. Scitovsky's construction of community indifference curves assumes a fixed income distribution throughout. But if the distribution of income changes with the imposition of a tariff, the community curves might intersect one another. There will be a different set of community indifference curves before and after the imposition of a tax on commodities entering into international trade. Thus, there may be an infinite number of community indifference curves passing through any point in the community preference map, each corresponding to a different level of income distribution. It is, therefore, wrong to assume that community indifference curves are independent of income distribution.

6. Conceals Many Difficulties. According to Johnson, the technique of community indifference curve in international trade theory "conceals a number of difficulties, which can only be evaded by making one or other of a number of restrictive assumptions. We can assume, for example, that the State has its own preference system, or we can assume that the State follows some social welfare policy which specifies the distribution of real income amongst the citizens. The problem here is that if we assume a free enterprise economy, with income distributed according to factorownership, then (unless ownership shares and individual tastes are identical) any change in production will, by altering factor prices, shift the weights given to the different people's preferences in adding up the social preference system."⁷

Conclusion. These criticisms have led economists to avoid the use of the tool in international trade theory, especially by Haberler who regards it "far from a satisfactory solution." While many economists like Johnson, Ellsworth, Sodersten and Vanek continue to use it. According to Caves, "The community indifference concept proves shaky, despite the regularity with which it has been used." On the other hand, to Kindleberger, "However unrealistic, the community indifference curve is schematically a neat device."

⁶. *Ibid.*

7. H.G. Johnson, 'Comparative Costs and Commercial Policy', *PEJ*, June 1958.

(A) USE OF INDIFFERENCE CURVES IN INTERNATIONAL TRADE : GENERAL EQUILIBRIUM

The supply and demand sides of a two-commodity economy, as represented by the production possibility curves and the community indifference curves, help in the simultaneous general equilibrium of production and consumption. This is explained as under:

Pre-trade Situation. In the absence of trade, the point where the production possibility curve is tangent to the community indifference curve, represents the price which will prevail in a country and also its consumption and production level. Given the slope of the line PB in Fig. 5, a country exchanges a part of its commodity X in exchange for another commodity Y . It exchanges OY_1 of Y for OX_1 of X and retains PY_1 of Y , being on a higher community indifference curve Cl_2 . If it moves away from this equilibrium E in either direction it will be on a lower indifference curve Cl_1 where the country's total satisfaction will be reduced.

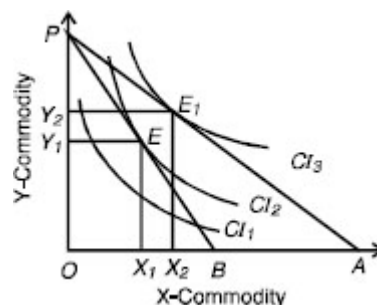


FIG. 5

If the terms of trade line is PA , then it will be at a higher equilibrium point E_1 on the community indifference curve Cl_3 where it exchanges a larger quantity OY_2 of commodity Y in exchange for a higher quantity OX_2 of X . This is the case of constant costs "where the preference will be given to the line of the steeper slope, which in any case will lead to a 'higher' indifference curve."

If there are decreasing returns, the production possibility curve will be concave to the origin. The equilibrium will take place where the production possibility curve is tangent to the highest possible community indifference curve. This is illustrated in Fig. 6 where the production possibility curve AB is tangent to the community indifference curve Cl_2 at point

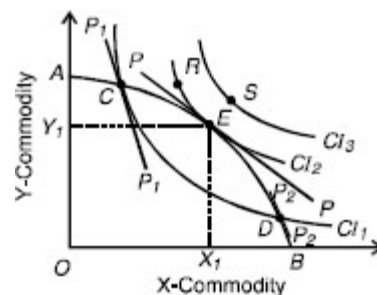


FIG. 6

E. Any other point, say *R*, on the same indifference curve CI_2 or point *S* on a higher indifference curve CI_3 is beyond the production possibilities of the economy. Any point such as *C* or *D* on the production possibility curve AB is feasible but it gives a lower level of satisfaction to the country because it is on a lower community indifference curve CI_1 . Hence *E* is the equilibrium position for an economy in the pre-trade situation. At this point *E* both consumers and producers are in equilibrium, as indicated by the domestic price line PP which equates the marginal rate of substitution in consumption and the marginal rate of transformation in production. It is at this price ratio (PP) that consumers' demand OX_1 and producers' supply OY_1 are equated. Symbolically, the equilibrium condition can be expressed as (Demand) $MRS_{xy} = P_x/P_y$ (Slope of PP at *E*) = MRT_{xy} (Supply)

To prove that only *E* is the point of equilibrium, let us take point *C* on the production possibility curve AB where the commodity exchange ratio is represented by the slope of the price line P_1P_1 which is tangent to the community indifference curve CI_1 . The consumers' demand for the two commodities is reflected by this point *C* whereby they want more of *Y* and less of *X*. But the production of the two commodities is taking place at point *D* because the slope of the tangent P_2P_2 to the production possibility curve is the same as that of P_1P_1 . So the economy is producing more of *X* and less of *Y*. The excess supply of *X* in relation to its demand would bring down its price, while the larger demand of *Y* in relation to its production would push up its price. Ultimately, the consumption point would move from *C* towards *E* and the production point would also move from *D* towards *E*, till demand and supply of the two commodities are equalised at point *E* as represented by the price line-cum-commodity exchange ratio PP .

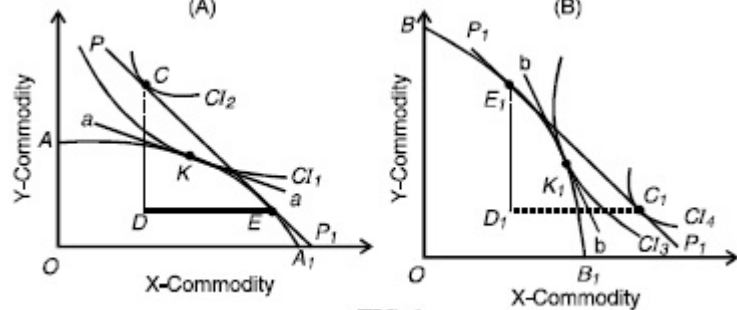
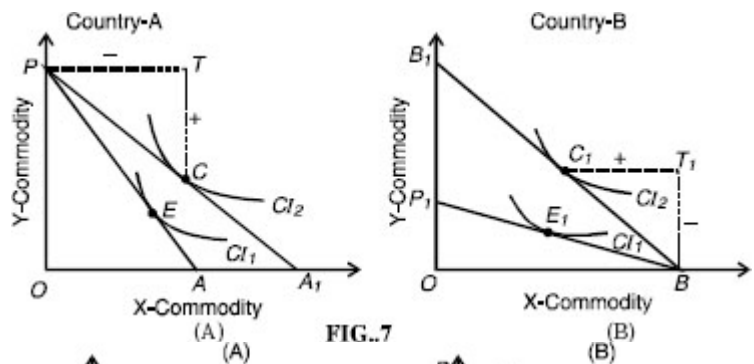
(B) POST TRADE EQUILIBRIUM : MODERN VERSION OF COMPARATIVE COST DOCTRINE

The community indifference curves can be used to explain equilibrium between two open economies to indicate the quantities of

commodities exported and imported at an international price. This analysis is explained in terms of constant, increasing and decreasing costs so as to study the application of indifference curve analysis to the doctrine of comparative costs. Johnson opines in this connection, “when we say that trade takes place because of differences in comparative cost what we mean is that the comparative marginal cost of production would be different in the country concerned, as compared with the rest of the world, in the absence of trade. One of the effects of trade is to tend to equalise prices, and therefore, to eliminate differences in comparative costs. This assumes that trade is free and there are no transport costs; and also that both the country and the rest of the world continue to produce both goods.”⁸

In the pre-trade situation, equilibrium takes place when a country's production curve is tangent to its community indifference curve. It consumes only that combination of the two commodities which it produces. But in the post-trade situation each country specialises in the production of the commodity in which it possesses comparative advantage and ends up consuming more of both commodities than in the absence of trade.

Equilibrium under Constant Costs. Given two countries *A* and *B* which produce *X* and *Y* commodities, their pre-trade and post-trade equilibrium positions under constant costs are explained in Fig. 7 (A) and (B) respectively. The production possibility curve of country *A* is *PA* in Fig. 7(A) and of country *B* is *P₁B* in Fig. 2.7(B). Suppose that in the absence of trade, country *A* consumes and produces at point *E* where its production possibility curve *PA* is tangent to its community indifference curve *CI₁* in Panel (A); and similarly, country *B* consumes and produces at point *E₁* in Panel (B) of the figure.



8. *Ibid.*

The slopes of the line PA and P_1B reveal that country A has a comparative advantage in the production of Y commodity and country B has a comparative advantage in the production of X commodity. If both countries specialise completely, A would be at point P and produce only Y commodity (OP quantity), and B would be at point B and produce only X commodity (OB quantity). But each country would like to take advantage of the opening of trade with the other and not to consume only one commodity. So they mutually agree upon an international terms of trade, as represented by PA_1 and BB_1 lines which are parallel to each other. So the equilibrium ratio of exchange is established at point C for country A and at C_1 for country B where the international terms of trade line is tangent to a higher community indifference curve Cl_2 in the case of each country. Now country A exports TC of Y in exchange for PT of X (Panel A) and country B exports C_1T_1 of X in exchange for BT_1 of Y (Panel B). The exports of country A exactly equal the imports of country B , i.e., TC of $Y = BT_1$ of Y . Similarly, the imports of country A exactly equal the exports of country B , i.e. PT of $X = C_1T_1$ of X .

But this analysis under constant costs is unrealistic because there are either increasing costs or diminishing costs. We, therefore, study this analysis under these two costs conditions.

Equilibrium under Increasing Costs. Under increasing costs or diminishing returns, the production possibility curves are concave to the origin, as shown in Fig. 8(A) and (B). In the pretrade situation, a country is in equilibrium when its production possibility curve is tangent to its community indifference curve. But mutually advantageous trade is only possible when the pretrade relative commodity price differs in the two countries. Moreover, it is the shape of the production possibility curve of a country that indicates its comparative advantage in the production of a commodity. In the post-trade situation, each country will specialise in the production of the commodity of its comparative advantage, and through exchange at a new price each country will end up consuming outside and above its production possibility curve a higher community indifference curve.

Given identical tastes as reflected in similar community indifference curves and different factor endowments as reflected in different production possibility curves, the production possibility curve of country *A* is AA_1 and of country *B* it is BB_1 as shown in Fig. 8 (A) and (B) respectively. In the absence of trade, country *A* can reach the community indifference curve CI_1 with its production possibility curve AA_1 where it produces and consumes at point *K*. It is at this point that the slopes of the two curves (*MRT* of AA_1 and *MRS* of CI_1) are equal, as revealed by the domestic price line *aa* in Panel (A). On the other hand, country *B* is in equilibrium at point K_1 , as shown by its domestic price line *bb* which passes through the point of tangency of the production possibility curve BB_1 and the community indifference curve CI_3 in Panel (B). Since in the pre-trade situation, the domestic price ratios (terms of trade) of the two commodities differ in the two countries (the slope of the line *aa* is different from that of line *bb*), trade between the two will be advantageous.

When they enter into trade, the amounts of X and Y exported and imported in the two countries and the price at which they will be exchanged will be determined by parallel lines of equal length tangent to the respective production possibility curves and tangent to a higher indifference curve. Thus, the lines PP and P_1P_1 of country A and B respectively run in opposite directions from production possibility curves in order to reach higher indifference curve CI_2 and CI_4 in Panels (A) and (B) respectively. Thus, country A moves from point K to point E in production, and by exchanging DE of X (Panel A) for E_1D_1 of Y of country B (Panel B) reaches point C in consumption on its higher community indifference curve CI_2 in Panel (A). On the other hand, country B moves from point K_1 to E_1 in production, and by exchanging E_1D_1 of its Y for DE of X of country A , it reaches its consumption level C_1 on the higher community indifference curve CI_4 in Panel (B). Since tastes are assumed identical in the two countries, the shapes of the community indifference curves CI_2 and CI_4 are the same. This implies that country A 's exports of X -commodity (DE) exactly equal country B 's imports of this commodity (D_1C_1). Similarly, country B 's exports of Y -commodity (E_1D_1) exactly equal A 's imports of this commodity (CD).

The effects of trade with different production possibility curves and identical community indifference curves are to make each country more specialised in production and less specialised in consumption. In both cases, production slides farther along the production possibility curve towards the output of the commodity for which the factors are most effective. Given the shapes of the curves portrayed in Fig. 8, however, consumption tends to move in the other direction — move towards equality, as the scarce commodity in each country becomes cheaper after importation. The *gains from trade* are measured for each country when it moves from a lower community indifference curve to a higher one with no change in production.

Equilibrium under Diminishing Costs. Under diminishing costs or increasing returns, the production possibility curve is convex to the

origin. Assuming, identical tastes and different factor endowments in two countries, each country will completely specialise in the production of only one commodity when each enjoys economies of scale. Pre-trade and post-trade equilibrium situations in the two countries are illustrated in Fig. 9 where BB_1 is the production possibility curve of country B and AA_1 that of country A . The slopes of these curves show that country A has a comparative advantage in the production of commodity X and country B in the production of Y commodity.

In the absence of trade, the consumption and production level of country A is at point E where the production possibility curve AA_1 is tangent to the community indifference curve CI_1 , as revealed by its domestic price line aa . On the other hand, E_1 is the consumption and production point of country B as determined by tangency of its production possibility curve BB_1 and its community indifference curve CI_2 at its domestic price line bb .

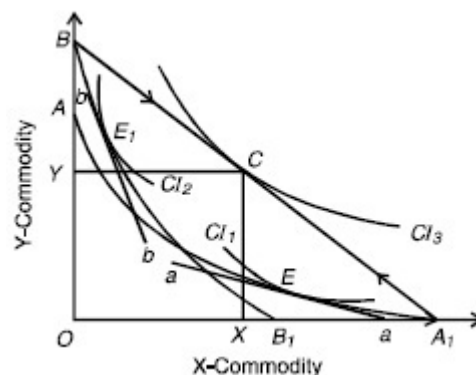


FIG. 9

In the post-trade situation when producers in both countries became aware of the possibilities of economies of scale, production in country A will shift to the limit of the production possibility curve AA_1 at A_1 and that of country B to the limit of the production possibility curve BB_1 at B . Under these circumstances, each country will move along the international price line BA_1 . Country A will move from point A_1 upward and country B will move from point B downward, and both will reach point C on the higher indifference curve CI_3 . Country A will export XA_1 of commodity X to country B in exchange for XC of Y and consume OX . Country B will export YB of Y to A in exchange for YC of X and consume OY of Y . It is to be noted that A 's exports of X (XA_1) exactly equal B 's imports of this commodity (YC), while B 's exports of Y (YB) exactly equal A 's imports of this commodity (YC).

Each country gains immensely from trade with other because in the absence of trade each consumes and produces only one commodity but after trade each consumes both the commodities, as revealed by the higher community indifference curve CI_3 ⁹

⁹. For criticism refer to the section Community Indifference Curve earlier in this chapter.

4. THE OFFER CURVE

Another important tool of analysis in international economics is the offer curve, also known as the reciprocal demand curve developed by Mill, Edgeworth, Marshall and Meade. *The offer curve of a country determines the relative commodity price at which trade takes place.* It shows the various quantities of its exportable commodity a country is willing to exchange for an importable commodity at various international prices.

Derivation of Offer Curve. The offer curve of a country is derived from its production possibility curve, its community indifference curves and the various international commodity prices at which it would trade with the other country.

Panel (A) of Fig. 10 shows AA_1 the production possibility curve of country A, the community indifference curves CI_1 , CI_2 and CI_3 , and P_1 , P_2 and P_3 the price lines. In the absence of trade, domestic producers and consumers are in equilibrium at point E , as revealed by the domestic price line P_1 which passes through the point of tangency between the production possibility curve AA_1 and the community indifference curve CI_1 .

Suppose this country decides to enter into international trade. Since it has a comparative advantage in the production of commodity Y (this is clear from the shape of the production possibility curve AA_1), its terms of trade are shown by the price line P_2 . It will then produce

at point F and consume at E_1 on the higher community indifference curve Cl_2 . Its trade triangle GE_1F shows that it will export GF of Y in exchange for GE_1 of X imports. If the terms of trade are settled at the P_3 price line on which the country produces at point C and consumes at point E_2 is on a still higher community indifference curve Cl_3 . It thus exports DC of Y commodity in exchange for DE_2 of X commodity.

Country A 's offer curve is drawn in Panel (B) of Fig. 10 by taking the vertical axis exactly below the CD line of Panel (A). The triangle OE_1G in the lower figure is the same as the triangle FE_1G in the upper figure, the terms of trade OP_2 are the same as those shown by the price line P_2 in Panel (A), as they have the same absolute slope. Similarly, the triangles OE_2D and CE_2D are similar and so are their price ratios OP_3 and P_3 respectively in the two Panels (B) and (A). The price line OP_1 corresponds to the domestic price line P_1 of the upper figure. Connecting points E_1 and E_2 from the origin, we have the offer curve OA of country A which shows the exports of Y -commodity OG and OD that will be offered in exchange for imports of X -commodity (not shown here) as the international terms of trade represented by OP_2 and OP_3 respectively.

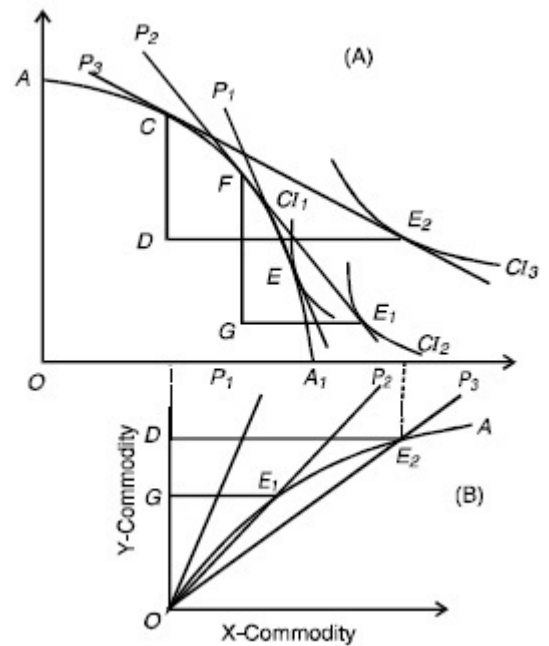


FIG. 10

The offer curve of country B is drawn in Panels (A) and (B) of Fig. 11 with the help of the production possibility curve BB_1 the community indifference curves Cl_0 , Cl_1 and Cl_2 and P_0 , P_1 and P_2 price lines. Since the slope of the production possibility curve shows country B to be possessing comparative advantage in the production of

commodity X, this country will export this commodity in exchange for the import of Y-commodity. The procedure for drawing the offer curve OB in the lower portion of the figure is the same as followed in Fig. 10 (A) and (B). The trade triangle OG_1E_1 corresponds to the trade triangle G_1FE_1 , and the triangle OD_1E_2 to $D_1C_1E_2$. The lines OP_1 and OP_2 represent the international terms of trade which have the same absolute slopes as the price lines P_1 and P_2 in Panel (A) of the figure. Point E_1 and E_2 are the loci of equilibrium trade at these international prices and by joining them through the origin, we have the offer curve OB of country B in Panel (B). This curve shows that country B will offer OG_1 and OD_1 quantities of its exportable commodity-X in exchange for certain quantities of imports of Y (not shown in the figure) at these international prices.

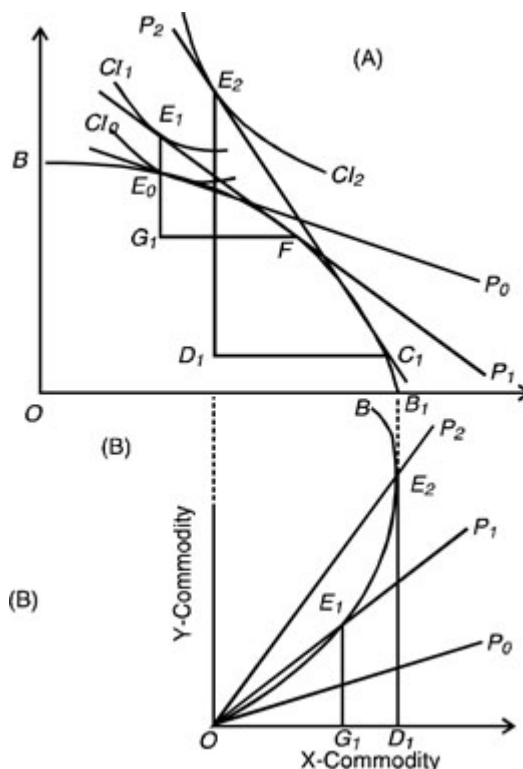


FIG. 11

Trade Equilibrium. In order to determine the trade equilibrium at given international prices, we combine the offer curves of Fig. 10 (B) and 11 (B) in Fig. 12. The point where the two offer curves intersect, will determine the quantities of exports and imports of each commodity offered at international prices by the two countries. The offer curves OA and OB intersect at point $E_2 (=E_2)$. At the international price line $P_3 (=P_2)$, country A offers OD of its exports of Y in exchange for OD_1 of imports of X from B country. Similarly, country B offers OD_1 of its exports of X in exchange for OD

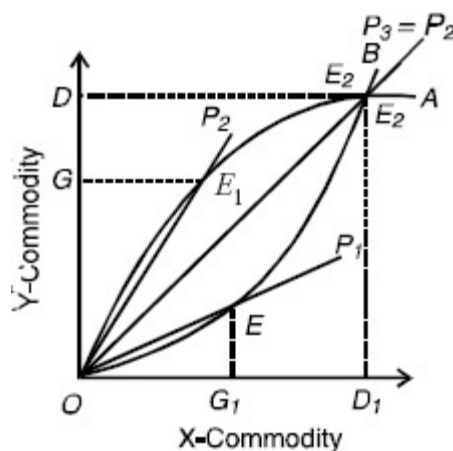


FIG. 12

imports of Y from country A . At any point other than E_2 , say E_1 on the price line OP_2 , country A would be willing to exchange OG of its commodity Y for a lesser amount GE_1 of X from country B . Similarly, if B is at point E on the international price line OP_1 , it would be willing to accept much less quantity G_1E of commodity Y from country A in exchange for OG_1 of X . Thus, neither point E_1 nor point E on the international price lines OP_2 and OP_1 can be one of equilibrium, "because the terms of trade implied by the ray from the origin of each point do not suffice to clear the market." Hence, the point $E_2 (= E_2)$ where the offer curves OA and OB of the two countries intersect will be the equilibrium point.¹⁰

¹⁰. For measuring gains from trade in terms of offer curves, refer to Mill's Approach in the chapter on "The Gains from Trade."

A NOTE ON THE ELASTICITY OF THE OFFER CURVE

The elasticity of the offer curve is measured in terms of the following formula:

$$= \frac{\Delta M/M}{\Delta X/X} = \frac{\Delta M}{\Delta X} \cdot \frac{X}{M}$$

where M and X refer to imports and exports respectively. The elasticity of the offer curve OB of country B at point E in Fig. 13 can be measured in the following way. Draw a tangent TT_1 to the offer curve OB at E , and a perpendicular from E on the horizontal axis at point N . We can work out the above formula on the basis of the diagram as under:

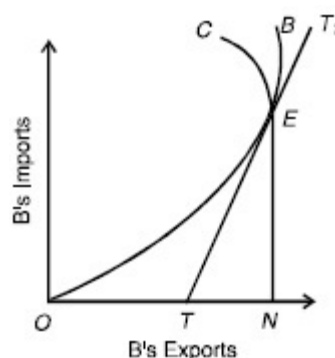


FIG. 13

$$\begin{array}{lcl} DM & = & NE \\ DX & = & TN \\ M & = & NE \\ X & = & ON \end{array}$$

The slope at point E is



It shows that the elasticity of the offer curve at point E is greater than 1. It is *highly elastic* beyond E on the offer curve OB . When the offer curve is a straight vertical line beyond E , its elasticity is *unitary*. It is *inelastic* when the offer curve is backward bending OC , beyond point E .

IMPORTANCE OF THE OFFER CURVE

The offer curve is a useful geometrical tool in international trade theory. It was first used by Edgeworth and Marshall. But now it is being used to explain Mill's theory of reciprocal demand, the gains from international trade, the exchange rate theory and the theory of tariff. It is, however, the elasticity of the offer curve which is generally taken into consideration. Moreover, "the offer curve is a general equilibrium concept. It is determined by production and consumption conditions jointly. It is more appropriate to say that these conditions determine the shape of the trading partners' offer curves, which in turn determine the terms of trade."¹¹

5. THE TRADE INDIFFERENCE CURVE

The trade indifference curve is geometrical device developed by James Meade¹² to derive the offer curve of a country from its production possibility curve and the community indifference curve. Meade uses this technique to show the impact of trade on production, consumptions, and the gains from trade. A trade indifference curve shows changes in domestic production and consumption as well as in real income from shifts in terms of trade

and in the volume of trade. A trade indifference curve is constructed in Fig. 14. The diagram consists of four quadrants.

[11.](#) Bo Sodersten, *International Economics*, 1971, p. 43.

[12.](#) J.E. Meade, *A Geometry of International Trade*, 1952, Ch. 1-4.

There are two countries A and B. They produce two commodities which Meade calls A exportables and B-exportables. A's exportables are B's importables and B's exportables are A's importables. A's exportables are measured along the horizontal axes, OX and OX_1 and B's exportables are measured along the vertical axes, OY and OY_1 .

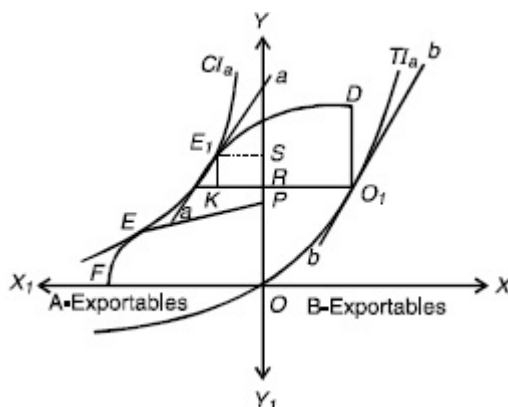


FIG. 14

The trade indifference curve T/a relates to country A in Fig. 14. To the left of O is taken the "production block" OPF of this country which is tangent to the community (or what Meade calls consumption) indifference curve C/a at E . Now slide this production block (or production possibility curve) up along the community indifference curve C/a till it is again tangent to the curve C/a at E_1 . Thus, the origin of the initial block O and of the new block O_1 traces out the trade indifference curve T/a . Country A will be indifferent at every point on this curve. If it remains at O , it produces and consumes the quantities of commodity X and commodity Y as determined by point E . But when it moves along the trade indifference curve T/a and reaches the origin O_1 of the higher production block, it produces at point E_1 . Here it produces O_1K of X commodity (A-exportables) and KE_1 of Y commodity (B-exportables). But it exports O_1R of X commodity for RO of Y commodity, and consumes RK of X and SO ($SR + RO$) of Y commodity.

The trade indifference curve of country B can be drawn in the same manner with the only difference that the production block and the community indifference curve will be in the fourth quadrant XOY_1 opposite to A 's quadrant YOX_1 .

PROPERTIES OF THE TRADE INDIFFERENCE CURVE

A trade indifference curve possesses the following properties:

1. "There is a trade indifference curve corresponding to every consumption indifference curve, and hence a trade indifference map. A country is better off, the higher the trade indifference curve it is able to reach. Along any single curve, it is indifferent between one position and another."¹³

2. Further, as proved by Meade,¹⁴ a line tangent to the trade indifference curve as bb at O_1 will be parallel to the domestic trade line aa at E_1 where the production block O_1DE_1 is tangential to the community indifference curve C/a , as shown in Fig. 14.

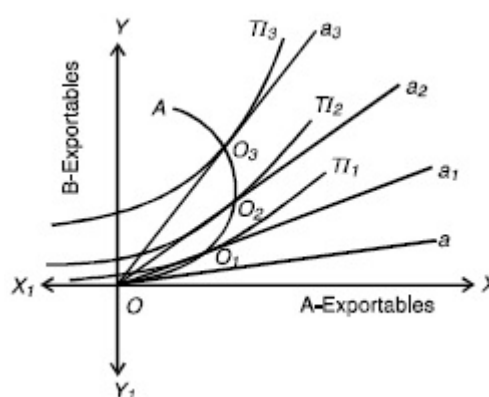


FIG. 15

3. If a community indifference curve is negatively sloped the trade indifference curve will also be negatively sloped.

4. If a community indifference curve is convex to the origin, a trade indifference curve will also be convex to the origin.

¹³ C.P. Kindleberger, *op. cit.*, p. 475.

¹⁴ J. E. Meade, *op. cit.*, pp. 15-16.

Meade has demonstrated geometrically the derivation of the offer curve of a country from its trade indifference map. An offer curve "represents the locus of a series of tangencies of various price lines

to the trade indifference map of successively higher indifference curves". Country A's offer curve is drawn in Fig. 15 where Tl_1 , Tl_2 , Tl_3 are its trade indifference curves, and a_1 , a_2 and a_3 are different terms of trade lines. Line a refers to the domestic terms of trade of the country at which it has nothing to offer to the other country. It is only when the international terms of trade line is tangent to the trade indifference curve that the country will offer its exportables in exchange for the other country. In the figure such points of tangency are O_1 , O_2 and O_3 . When these are connected by a line through the origin, it forms the offer curve OA of country A. "As higher and higher prices for A-exportables are offered in terms of B exportables, A will be enabled to move to higher and higher trade indifference curves and will be disposed to offer first more and more A-exportables for larger quantities of B-exportables, and then less."¹⁵

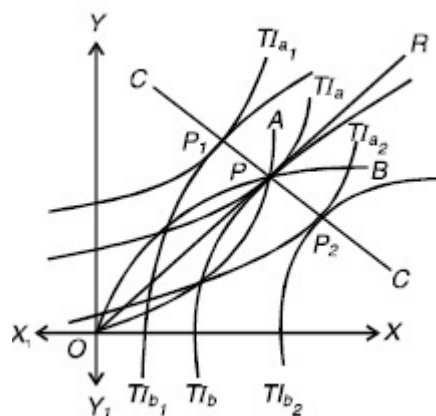


FIG. 16

Country B's offer curve can similarly be drawn by placing B's production block in the south-east (fourth) quadrant XOY_1 . Such a geometric exercise has not been performed but B's offer curve has been shown along with A's offer curve in Fig. 16. OA is the offer curve of country A whose trade indifference curves are Tla_1 , Tla and Tla_2 , while OB is the offer curve of country B whose trade indifference curves are shown as Tlb_1 , Tlb and Tlb_2 . These trade indifference curves of A and B are tangent to each other at points P_1 , P and P_2 . A line connecting these points CC is the contract curve. It is only at point P where the two offer curves OA and OB intersect, that the equilibrium terms of trade will be established, as shown by the slope of the international terms of trade line OR . At these equilibrium terms of trade, A-exportables and B-exportables of the two countries will equal. At any point other than P , say at P_1 , country A will be willing to offer less of commodity X than at P , and at P_2 it

will be willing to offer more of commodity X . The opposite will be the case with country B . Hence it is only at P that the terms of trade of A 's exportable balance B 's importables.

TRADE EQUILIBRIUM

Meade has shown the final production, consumption and trade equilibrium for country A and B by demonstrating the relationship of the offer curves to the production possibility and community indifference curves. Fig. 17 depicts the general equilibrium and the gains from trade of the two countries. In the diagram the origins of production blocks of A and B touch each other at O_1 . This

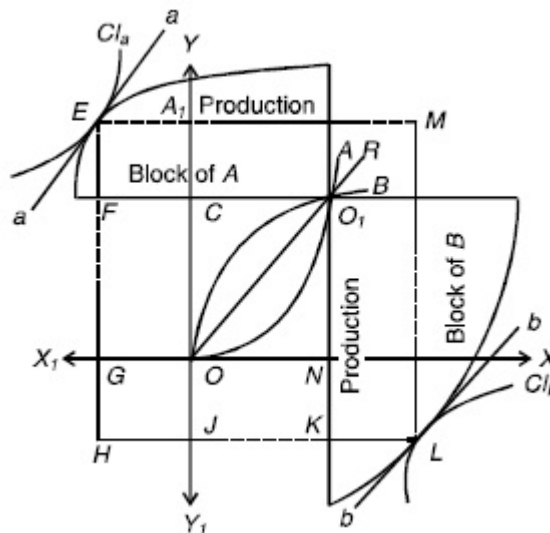


FIG. 17

is also the point where the offer curves OA and OB of the two countries intersect and the equilibrium terms of trade are shown by the line OR which passes through O_1 .

Taking country A , its production of X commodity is FO_1 and of Y commodity is EF . After trade, its consumption of X is FC and of Y is EG ($EF + FG$). It thus exports CO_1 ($= FO_1 - FC$) of X to country B and imports FG ($= O_1N$) of Y .

[15.](#) C.P. Kindleberger, *op. cit.*, p.47. Italics added.

So far as country B is concerned, it produces LK of X and KO_1 of Y . After trade, it consumes LJ ($= LK + KJ$) of X and KN of Y . It thus exports NO_1 ($= O_1N$) of Y and imports KJ ($= CO_1$) of X .

Thus both A and B gain through trade and specialisation, A specialising in the production of X and B in the production of Y . Both reach the highest possible trade indifference curves which generate

the offer curves OA and OB where the trade is balanced between the two. A 's exportables CO_1 equal B 's importables KJ , and B 's exportables NO_1 equal A 's importables FG . Moreover, both countries are put on their highest community indifference and production possibility curves whereby their consumption and production levels of X and Y commodities are raised. Last but not the least, their domestic price ratios are altered and then equalised with the international terms of trade, *i.e.*, lines aa and bb are parallel to OR .

6. THE BOX DIAGRAM

The box diagram is another analytical tool used from the supply side in the international trade theory. It “permits us to study the interrelationships between production functions and total numbers of factors of production and to derive optimal factors inputs and outputs.”¹⁶

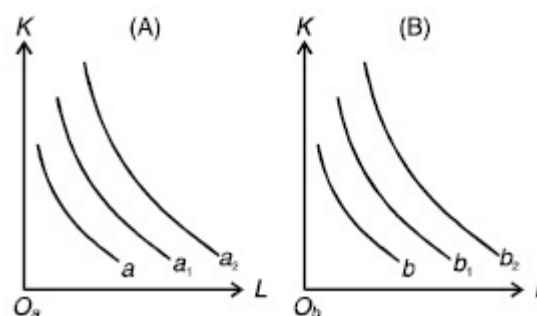


FIG. 18

To construct a box diagram, take two figures showing the isoquants of two products, say, A and B , as shown in Fig. 18 (A) and (B) respectively. Let us now rotate the Fig. 18 (B) so that the origin Ob of commodity B is in the upper right hand corner, as shown in Fig. 19 (B). The two isoquant diagrams (A) and (B) of Fig. 19 may be pushed together to form a box diagram, as shown in Fig. 20 where the size of the diagram has been enlarged to facilitate understanding.¹⁷

In the box diagram in Fig. 20, the vertical axis measures capital and the horizontal axis labour from the origin O_a which represents commodity A . The isoquants aa , a_1a_1 and a_2a_2 are the isoquants of this commodity. They are drawn on the assumption of the homogeneous production function of the first degree. Accordingly, the

isoquants are so drawn that the isoquant a_1a_1 is twice as far as from the origin Oa as the isoquant aa , and a_2a_2 is three times as far from the origin as aa . Similarly, the origin Ob relates to commodity B and its isoquants are represented by bb , b_1b_1 and b_2b_2 . The assumption of

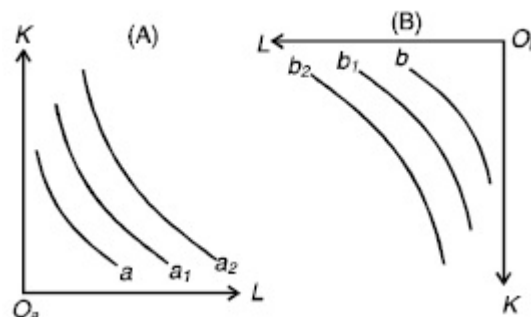


FIG. 19

homogeneous production of degree one equally holds in this case. Any point on the box diagram represents four things: it measures from the lower left-hand corner (Oa) the amounts of capital and labour used to produce that commodity A , and from the upper right-hand corner (Ob) the amounts of capital and labour used in the production of the other commodity B . Any point in the box diagram, for instance, S where the isoquants a_1a_1 and bb intersect, represents a certain combination of the two commodities with the help of the two input combinations. To produce S units of commodity A , O_aC of capital and O_aD of labour are needed; and to produce S units of commodity B , O_bC_1 of capital and O_bD_1 of labour are required. These combinations of the two inputs are essential because full employment of factors is assumed.

16. Bo Sodersten, *op. cit.*, p. 57

17. This is a digression which may be omitted by students from the examination point of view.

But S is neither a point of economically efficient production of the two commodities A and B nor of optimum allocation of the two factors, capital and labour. This is because at point S the ratio between the marginal productivities is different in the production of A and B . This is shown by the different slopes of the two isoquants of point S . The tangent t_1 on the isoquant a_1a_1 is much steeper than the tangent t on the isoquant bb . "This means that labour is relatively more productive in making A than in B , whereas the opposite is true of capital. Therefore, labour should be shifted from B production to A

production, and capital from A production to B production.” If we move along the isoquant a_1a_1 toward Q, the production of A remains unchanged because we are still on the isoquant a_1a_1 . But the production of B has increased as we have moved to a higher isoquant b_1b_1 from bb . This has been possible due to the shifting of CE of capital from the production of A to B and D_1F_1 (=

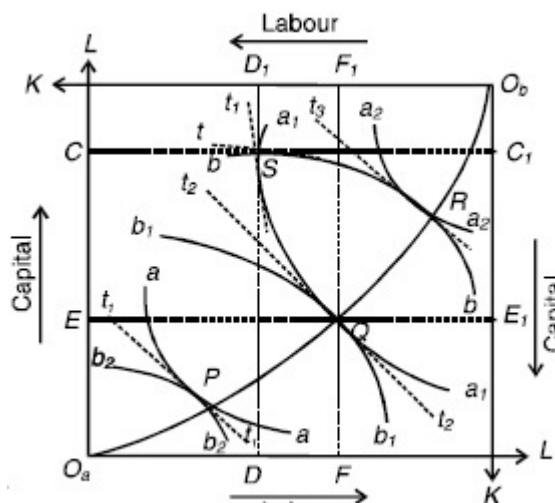


FIG. 20

DF) of labour from the production of B to A. Thus, to produce Q units of A, O_aE of capital and O_aF of labour are used. And to produce Q units of B, O_bE_1 of capital and O_bF_1 of labour are used.

Point Q is the “efficient locus” or the point of economically efficient production for both A and B, because at this point the ratio between the marginal productivities in the production of A and B are equalised, as shown by the tangent t_2t_2 that passes through the locus of isoquants a_1a_1 and b_1b_1 . Similarly, points P and R are economically efficient production points of the commodities. This is because the isoquants of the two commodities have opposite curvatures and each curve is tangent to the other at a single point, and the tangent passing through each point is parallel to the other, i.e., t_1t_1 is parallel to t_2t_2 , and to t_3t_3 .

Derivation of Production Curve from the Box Diagram: If the points of tangency P, Q and R are joined by a curve from the origin O_a to O_b , it traces out an Edgeworth-Bowley contract curve O_aPQRO_b . The maximum combined outputs of A and B obtainable at these points of tangency can be plotted on a diagram

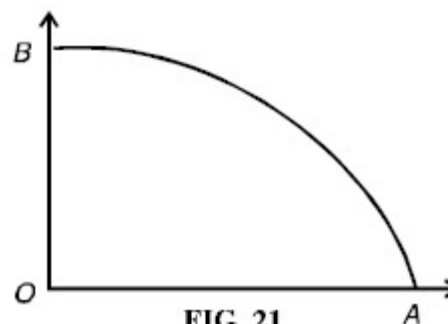


FIG. 21

whose co-ordinates measure units of A and B . This results in the production possibility curve AB in Fig. 2.21. The slope of this curve shows that as the production of A is increased, the production of B has to be decreased. More of B production is given up to get a given increase in the output of A . The production possibility curve is, therefore, concave to the origin. If the production function is homogenous of degree one and the capital-labour ratio differs between the two commodities, the resultant production possibility curve is concave to the origin.

EXERCISES

1. What are offer curves? Explain the determination of trade with the help of offer curves?
2. What are community indifference curves? Explain their use in international trade theory.
3. What are trade indifference curves? What are their properties and uses in the theory of international trade?



THE CLASSICAL THEORY OF COMPARATIVE ADVANTAGE

1. INTRODUCTION

The classical theory of international trade was first formulated by Robert Torrens, David Ricardo and John Stuart Mill. Their ideas relate to the theory of comparative cost or advantage. Adam Smith, the first classical economist, advocated the principle of absolute advantage as the basis of international trade which was discarded by Ricardo. But the Ricardian theory of comparative advantage has been accepted and improved upon by modern economists like Taussig and Haberler. In this chapter, we discuss the views of Smith and Ricardo.

2. SMITH 'S THEORY OF ABSOLUTE DIFFERENCES IN COSTS

Adam Smith extolled the virtues of free trade. These are the result of the advantages of division of labour and specialisation both at the national and international levels. The division of labour at the international level requires the existence of *absolute* differences in costs. Every country should specialise in the production of that commodity which it can produce more cheaply than others and exchange it for the commodities which cost less in other countries.

According to Smith, “Whether the advantage which one country has over another be natural or acquired, is in this respect of no consequence.”

To illustrate, let there be two countries, *A* and *B*, having absolute differences in costs in producing a commodity each, *X* and *Y* respectively, at an absolute lower cost of production than the other. The absolute cost differences are illustrated in Table 1.

Table 1. Absolute Differences in Costs

<i>Country</i>	<i>Commodity-X</i>	<i>Commodity-Y</i>
<i>A</i>	10	5
<i>B</i>	5	10

The table reveals that country *A* can produce 10*X* or 5*Y* with one unit of labour and country *B* can produce 5*X* or 10*Y* with one unit of labour.

In this case, country *A* has an absolute advantage in the production of *X* (for 10*X* is greater than 5*X*), and country *B* has an absolute advantage in the production of *Y* (for 10*Y* is greater than 5*Y*). This can be expressed as

$$\frac{10X \text{ of } A}{5X \text{ of } B} > 1 > \frac{5Y \text{ of } A}{10Y \text{ of } B}.$$

Trade between the two countries will benefit both if *A* specialises in the production of *X* and *B* in the production of *Y*, as is shown in Table 2.

Table 2. Gains From Trade

<i>Commodity</i> ®	<i>Production before Trade</i>		<i>Production after Trade</i>	<i>Gains from Trade</i>	
<i>Country</i> ¯	(1)		(2)	(2 – 1)	
	<i>X</i>	<i>Y</i>	<i>X</i>	<i>X</i>	<i>Y</i>

A	10	5	20	—	+ 10	— 5
B	5	15	20	20	+ 5	+ 5
<i>Total Production</i>	15	15	20	20	20	+ 5

The above table reveals that before trade both countries produce only 15 units each of the two commodities by applying one labour-unit on each commodity. If A were to specialise in producing commodity X and use both units of labour on it, its total production will be 20 units of X. Similarly, if B were to specialise in the production of Y alone, its total production will be 20 units of Y. The combined gain to both countries from trade will be 5 units each of X and Y.

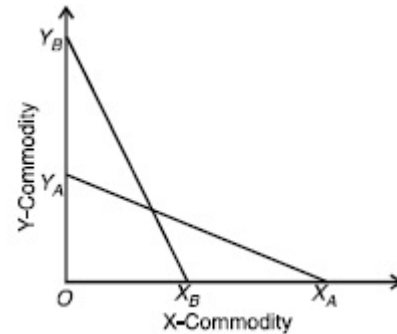


FIG. 1

Figure 1 illustrates absolute differences in costs with the help of production possibility curves. $Y_A X_A$ is the production possibility curve of country A which shows that it can produce either OX_A of commodity X or OY_A of commodity Y. Similarly, country B can produce OX_B of commodity X or OY_B of commodity Y. The figure also reveals that A has an absolute advantage in the production of commodity X ($OX_A > OX_B$) and country B has an absolute advantage in the production of commodity Y ($OY_B > OY_A$).

But Smith has been criticised for his vagueness and lack of clarity. According to Ellsworth¹, Smith assumes without argument that international trade requires a producer of exports to have an absolute advantage, that is, an exporting country must be able to produce with a given amount of capital and labour a larger output than any rival. But this basis of trade is not realistic because there are many underdeveloped countries which do not possess absolute advantage in the production of any commodity, and yet they have trade relations with other countries. Thus, Smith's analysis is weak and unrealistic.*

3. RICARDO 'S THEORY OF COMPARATIVE DIFFERENCES IN COSTS

According to David Ricardo, it is not the absolute but the comparative differences in costs that determine trade relations between two countries. Production costs differ in countries because of geographical division of labour and specialisation in production. Due to differences in climate, natural resources, geographical situation and efficiency of labour, a country can produce one commodity at a lower cost than the other. In this way, each country specialises in the production of that commodity in which its comparative cost of production is the *least*. Therefore, when a country enters into trade with some other country, it will export those commodities in which its comparative production costs are less, and will import those commodities in which its comparative production costs are high. This is the basis of international trade, according to Ricardo. It follows that *each country will specialise in the production of those commodities in which it has the greatest advantage or the least comparative disadvantage*. Thus, a country will *export* those commodities in which its comparative advantage is the greatest and *import* those commodities in which its comparative disadvantage is the least.

1. P.T. Ellsworth, *The international Economy*, 4/e, 1975.

* Students at undergraduate level may leave Smith's theory.

ASSUMPTIONS OF THE THEORY

The Ricardian theory of comparative advantage is based on the following assumptions :

1. There are only two countries, say England and Portugal.
2. They produce the same two commodities say, wine and cloth.
3. There are similar tastes in both countries.

4. Labour is the only factor of production.
5. The supply of labour is unchanged.
6. All units of labour are homogeneous.
7. Prices of two commodities are determined by labour cost, *i.e.*, the number of labour-units employed to produce each.
8. Commodities are produced under the law of constant costs or returns.
9. Technological knowledge is unchanged.
10. Trade between the two countries takes place on the basis of the barter system.
11. Factors of production are perfectly mobile within each country, but are perfectly immobile between countries.
12. There is free trade between the two countries, there being no trade barriers or restrictions in the movement of commodities.
13. No transport costs are involved in carrying trade between the two countries.
14. All factors of production are fully employed in both the countries.
15. The international market is perfect so that the exchange ratio for the two commodities is the same.

EXPLANATION OF THE THEORY

Given these assumptions, Ricardo shows that trade is possible between two countries when one country has an absolute advantage in the production of both commodities, but a comparative advantage in the production of one commodity than in the other. This is illustrated in terms of Ricardo's well-known example of trade between England and Portugal as shown in Table 3.

Table 3. Man-Years of Labour Required For Producing One Unit

Country	Wine	Cloth
England	120	100
Portugal	80	90

The table shows that the production of a unit of wine in England requires 120 men for a year, while a unit of cloth requires 100 men for the same period. On the other hand, the production of the same quantities of wine and cloth in Portugal requires 80 and 90 men respectively. Thus, England uses more labour than Portugal in producing both wine and cloth. In other words, the Portuguese labour is more efficient than the English labour in producing both the products. So Portugal possesses an absolute advantage in both wine and cloth. But Portugal would benefit more by producing wine and exporting it to England because it possesses greater comparative advantage in it. This is because the cost of production of wine ($80/120$ men) is less than the cost of production of cloth ($90/100$ men). On the other hand, it is in England's interest to specialise in the production of cloth in which it has the *least comparative disadvantage*. This is because the cost of production of cloth in England is less ($100/90$ men) as compared with wine ($120/80$ men). Thus, trade is beneficial for both the countries. The comparative advantage position of both is illustrated in Fig. 2 in terms of production possibility curves.

PL is the production possibility curve of Portugal, and EG that of England. Portugal enjoys an absolute advantage in the production of both wine and cloth over England. It produces OL of wine and OP of cloth, as against OG of wine and OE of cloth produced by England. But the slope of ER (parallel to PL) reveals that Portugal has a greater comparative advantage in the production of wine because if it gives up the resources required to produce OE of cloth, it can produce OR of wine which is greater than

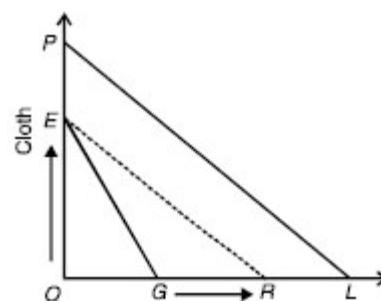


FIG. 2

OG of wine of England. On the other hand, England had the least comparative disadvantage in the production of OE of cloth. Thus, Portugal will export OR of wine to England in exchange for OE of cloth from her.

Gains from Trade and Their Distribution. Ricardo does not discuss the actual ratio at which wine and cloth would exchange and how much the two countries gain from trade. Before trade, the domestic trade ratios in the two countries for wine and cloth are shown in Table 4. The cost of production of one unit of wine in England is 120 men and that of producing one unit of cloth is 100 men. It shows that the cost of producing wine is more as against cloth because one unit of wine can exchange for 1.2 units of cloth. On the other hand, the cost of producing one unit of wine in Portugal is 80 men and that of producing one unit of cloth is 90 men. It is clear that the cost of producing cloth is more than that of wine because one unit of wine can exchange for 0.89 unit of cloth.

Suppose trade begins between the two countries. England will gain if it imports one unit of wine from Portugal in exchange for less than 1.2 units of cloth. Portugal will also gain if it imports one unit of cloth from England in exchange for *more* than 0.89 unit of wine.

Table 4. Domestic Exchange Ratios

<i>England</i>	<i>Portugal</i>
Wine 120:100 Cloth (6/5) 1:1.2	Wine 80:90 Cloth (8/9) 1:0.89
Cloth 100:120 Wine (5/6) 1:0.83	Cloth 90:80 Wine (9/8) 1:1.13

The Table shows that the domestic exchange ratio in England is *one* unit of cloth = 0.83 units of wine, and in Portugal *one* unit of wine = 0.89 unit of cloth. If we assume the exchange ratio between the two countries to be 1 unit of cloth = 1 unit of wine, England would gain 0.17 (1 – 0.83) unit of wine by exporting *one* unit of cloth to Portugal. Similarly, the gain to Portugal by exporting *one* unit of wine to

England will be 0.11 ($1 - 0.89$) unit of cloth. Thus, trade is beneficial for both countries.

The gains from trade and their distribution are shown in Figure 3 where the line C_1W_2 depicts the domestic exchange ratio 1 unit of cloth = 0.83 unit of wine of England, and the line W_1C_2 that of Portugal at the domestic exchange ratio 1 unit of wine = 0.89 unit of cloth. The line C_1W_1 shows the exchange rate of trade of 1 unit of cloth = 1 unit of wine between the two countries. At this exchange rate, England gains W_2W_1 (0.17 unit) of wine, while Portugal gains C_2C_1 (0.11 unit) of cloth.

To sum up, both England and Portugal specialise in the production of one commodity on the basis of comparative costs. Each reallocates its factors accordingly and exports that commodity in which it has comparative advantage and imports that commodity in which it has a comparative disadvantage. Both gain through trade and can increase the consumption of the two commodities.

ITS CRITICISMS

The principle of comparative advantage has been the very basis of international trade for over a century until after the First World War. Since then critics have been able only to modify and amplify it. As rightly pointed out by Prof. Samuelson. "If theories, like girls, could win beauty contests, comparative advantage would certainly rate high in that it is an elegantly logical structure."¹

But the theory is not free from some defects. In particular, it has been several times criticised by Bertin Ohlin and Frank D. Graham. We discuss some of the important criticisms as under:

1. Unrealistic Assumption of Labour Cost.

The most severe criticism of the comparative advantage doctrine is that it is based on the labour theory of value.

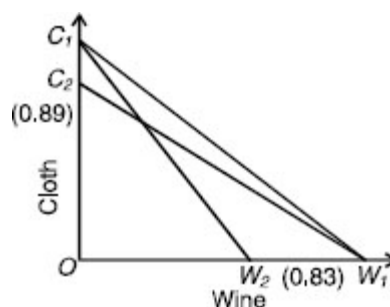


FIG. 3

In calculating production costs, it takes only labour costs and neglects nonlabour costs involved in the production commodities. This is highly unrealistic because it is money costs and not labour costs that are the basis of national and international transactions of goods.

Further, the labour cost theory is based on the assumption of *homogeneous labour*. This is again unrealistic because labour is heterogeneous of different kinds and grades, some specific or specialised, and other non-specific or general.

2. No Similar Tastes. The assumption of similar tastes is unrealistic because tastes differ with different income brackets in a country. Moreover, they also change with the growth of an economy and with the development of its trade relations with other countries.

3. State Assumption of Fixed Proportions. The theory of comparative costs is based on the assumption that labour is used in the same fixed proportions in the production of all commodities. This is essentially a static analysis and hence unrealistic. As a matter of fact, labour is used in varying proportions in the production of commodities. For instance, less labour is used per unit of capital in the production of textiles. Moreover, some substitution of labour for capital is always possible in production.

4. Unrealistic Assumption of Constant Costs. The theory is based on another weak assumption that an increase of output due to international specialisation is followed by constant costs. But the fact is that there are either increasing costs or diminishing costs. If the large-scale of production reduces costs, the comparative advantage will be increased. On the other hand, if increased output is the result of increased cost of production, the comparative advantage will be reduced, and in some cases it may even disappear.

[1.](#) P.A. Samuelson, *Economics* (8th ed.), p. 656.

5. Ignores Transport Costs. Ricardo ignores transport costs in determining comparative advantage in trade. This is highly unrealistic because transport costs play an important role in determining the pattern of world trade. Like economies of scale, it is an independent factor of production. For instance, high transport costs may nullify the comparative advantage and the gain from international trade.

6. Factors not Fully Mobile Internally. The doctrine assumes that factors of production are perfectly mobile internally and wholly immobile internationally. This is not realistic because even within a country factors do not move freely from one industry to another or from one region to another. The greater the degree of specialisation in an industry, the less is the factor mobility from one industry to another. Thus, factory mobility influences costs and hence the pattern of international trade.

7. Two-Country Two-Commodity Model Unrealistic. The Ricardian model is related to trade between two countries on the basis of two commodities. This is again unrealistic because in actuality, international trade is among many countries trading in many commodities.

8. Unrealistic Assumption of Free Trade. Another serious weakness of the doctrine is that it assumes perfect and free world trade. But, in reality, world trade is not free. Every country applies restrictions on the free movement of goods to and from other countries. Thus, tariffs and other trade restrictions affect world imports and exports. Moreover, products are not homogeneous but differentiated. By neglecting these aspects, the Ricardian theory becomes unrealistic.

9. Unrealistic Assumptions of Full Employment. Like all classical theories, the theory of comparative advantage is based on the assumption of full employment. This assumption also makes the theory static. Keynes falsified the assumption of full employment and proved the existence of under-employment in an economy. Thus, the assumption of full employment makes the theory unrealistic.

10. Self-Interest Hinders its Operation. The doctrine does not operate if a country having a comparative disadvantage does not wish to import a commodity from the other country due to strategic, military or development considerations. Thus, often self-interest stands in the operation of the theory of comparative costs.

11. Neglects the Role of Technology. The theory neglects the role of technological innovations in international trade. This is unrealistic because technological changes help in increasing the supply of goods not only for the domestic market but also for international market. World trade has gained much from innovations and research and development (R & D).

12. One-Sided Theory. The Ricardian theory is one-sided because it considers only the supply side of international trade and neglects the demand side. In the words of Prof. Ohlin, "It is indeed nothing more than an abbreviated account of the conditions of supply."²

13. Impossibility of Complete Specialisation. Prof. Frank Graham has pointed out that complete specialisation will be impossible on the basis of comparative advantage in producing commodities entering into international trade. He explains two cases in support of his argument: *one*, relating to a big country and a small country; and *two*, relating to a commodity of high value and low value.

To take the first case, suppose there are two countries which enter into trade on the basis of comparative advantage. Of these, one is big and the other is small. The small country will be able to specialise completely as it can dispose of its surplus commodity to the bigger one. But the big country will not be able to specialise fully because (a) being big, the small country will not be in a position to meet its requirements fully, and (b) if it specialises completely in a particular commodity, its surplus will be so large that the smaller country will not be able to import the whole of it.

² B. Ohlin, *Inter-regional and International Trade*, 1933, p. 586.

In the second case of commodities having incomparable value, the country producing in high-value commodity will be able to specialise while that producing in low-value commodity will not be able to do the same. This is because the former country will be in a position to have a larger gain than the latter country. Thus, according to Graham, "The classical conclusion of complete specialisation between two countries can hold ground only . . . by assuming trade between two countries of approximately equal economic performance."³

14. A Clumsy and Dangerous Tool. Prof. Ohlin has criticised the theory of international trade on the following grounds:

(i) The principle of comparative advantage is not applicable to international trade alone, rather it is applicable to all trade. To Ohlin, "International trade is but a special case of inter-local or interregional trade." Thus there is little difference between internal trade and international trade.

(ii) Factors are immobile not only internationally but also within different regions. This is proved by the fact that wages and interest rates differ in different regions of the same country. Further, labour and capital can also move between countries in a limited way, as they do within a region.

(iii) It is a two-country, two-commodity model based on the labour theory of value which is sought to be applied to actual conditions involving many countries and many commodities. He, therefore, regards the theory of comparative advantage as cumbersome, unrealistic, and as a clumsy and dangerous tool of analysis. As an alternative, Ohlin has propounded a new theory which is known as the modern theory of International Trade.

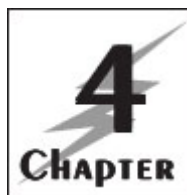
15. Incomplete Theory. It is an incomplete theory. It simply explains how two countries gain from international trade. But it fails to show how the gains from trade are distributed between the two countries.

Conclusion. Despite these weaknesses, the theory has stood the test of the times. Its basic structure has remained intact, even though many refinements have been made over it. To conclude with Prof. Samuelson, “Yet for all its oversimplifications, the theory of comparative advantage has in it a most important glimpse of truth. Political economy has found few more pregnant principles. A nation that neglects comparative advantage may have to pay a heavy price in terms of living standards and potential rates of growth.”

EXERCISES

1. Discuss critically the classical theory of international trade.
2. Discuss the doctrine of comparative advantage. What improvements have been made on it by Bertin Ohlin?
3. “Difference in comparative costs accounts for the existence of foreign trade and determines its composition and magnitude.” Discuss.
4. State with an arithmetical illustration, how the doctrine of comparative costs can help to locate with commodities a country will import and export.

[3.](#) F.D. Graham, *The Theory of International Values*, 1948.



THE CLASSICAL THEORY OF COMPARATIVE COSTS AND UDCs

1. CLASSICAL THEORY NOT APPLICABLE TO UDCs

The classical theory of comparative costs is not applicable to underdeveloped countries (UDCs). This is because of the unrealistic assumptions on which it is based. In order to discuss it, we first enumerate its basic assumptions:

(1) factors of production are fixed in quantity and quality in countries. (2) They are fully employed. (3) They are immobile internationally and mobile internally. (4) The technique of production is fixed. (5) Consumer's tastes do not change. (6) There is perfect competition in world trade. (7) There is no state intervention in international trade relations. (8) The terms of trade move automatically so that there is always trade balance. (9) The gains from trade accrue to the nationals of the concerned country.

We discuss these assumptions in the light of the conditions prevailing in UDCs.

1. Factors of Production not Fixed in Quantity and Quality. The assumption that factors of production are fixed in quantity and quality in trading countries is unrealistic. In reality, the factors of production

are fixed neither in quantity and nor in quality. Human and physical resources are continuously growing in UDCs. The UDCs have abundant supplies of unskilled labour. But with the spread of education it is becoming gradually skilled. With a gradual, though slow, increase in the rate of capital accumulation, physical resources are also being developed. Despite these changes, the UDCs are in a state of comparative disadvantage in relation to the developed countries because they are the producers of primary products and the developed countries of industrial products. Unhampered trade between the two countries of which one is industrial and the other under-developed, strengthens the former and impoverishes the latter. The prices of primary products are low as compared with the industrial products. Moreover, the demand for primary products is inelastic in the international market. As a result, the UDCs are unable to take advantage of either a fall or rise in their world prices. When their prices rise in the international market, increased export earnings lead to inflationary pressures, mal-allocation of investment expenditure and balance of payments difficulties. Increased export earnings are also wasted in speculation, conspicuous consumption, real estate, foreign exchange holdings, etc. Thus, short-run price instability in export markets leads to wide variations in export revenues thereby adversely affecting UDCs.

2. Resources not fully Employed. The assumption that resources are fully employed is also unrealistic in the context of UDCs, because of the existence of unemployment and disguised unemployment in such countries. In the classical theory, when an economy enters into trade, it specialises in the production of the exportable commodity by reducing the production of importable commodity. Since it is assumed that the resources are fully employed, they are simply transferred from the production of the latter commodity to the former commodity. But this is not the case in UDCs where resources are lying idle in the absence of international trade. So when an UDC enters into trade, the unemployed resources are used to produce more primary goods for export. This leads to export instability, as explained above. MacBean's study reveals that export instability is attributable not only to price changes but also to

fluctuations in the volume of exports which adversely affect the economies of UDCs.

3. Factors neither fully Mobile nor Immobile. The classical theory is based on the assumption that factors of production are perfectly mobile internally and immobile internationally. This is again not applicable to UDCs. Factors of production do not move freely from one industry to another and from one region to another due to structural rigidities in such countries. Similarly, factors of production like capital, technology, and managerial, administrative and technical personnel have been flowing from the developed countries to UDCs. In this connection, the MNCs have played a crucial role.

4. Techniques of Production not Fixed. The assumption that the techniques of production are fixed does not hold good in the context of UDCs. New technology, research and innovation in products and techniques of production have been profoundly affecting the exports of UDCs. They are no longer the exporters of primary products and importers of manufactures. They import hardly one-third of their total consumption of manufactured articles and the remaining they produce at home as a result of import substitution. On the other hand, their exports consist of textiles, light engineering goods, machine tools, steel and a variety of manufactured goods. This entire transformation in international trade has been the result of changes in technology. Moreover, if a production function permits flexible factor proportions, for example, substitution of land for capital and capital for land, then the theory of comparative advantage has little to communicate. The United States with cheap capital can export synthetic rubber to Indonesia; Indonesia with cheap rubber-producing land can export natural rubber to the United States. Where technology is subject to change in ways that will sharply alter the proportions of factors inputs, specialisation involves a risk. Nylon, rayon, and a variety of synthetic fibres have competed effectively with cotton and wool produced by a number of exporting countries. The risks are greater for the country with a single major export; as is the case with a number of underdeveloping countries.

5. Tastes and Preferences not Fixed. The assumption of fixed consumer tastes and preferences in the trading countries is unrealistic because tastes and preferences have been undergoing rapid changes in UDCs. As the economy of an UDC develops, its consumer preferences and tastes also change. This has been made possible by the spread of MNCs in such countries. They adopt novel advertising and promotional methods which impart information to buyers and create demand for particular brands and products.

6. Perfect competition not Found. The classical theory is based on the assumption of perfect competition. But, in reality, one finds monopolistic and oligopolistic tendencies in international trade. Due to lack of institutional and infrastructural facilities, agriculture and industry cannot reap the economies of large scale production in UDCs. So they fail to compete with the producers of developed countries who are mostly the MNCs. These MNCs are able to manipulate world demands, supplies, and prices to their advantage. Moreover, the international trade of UDCs is characterised by risk and uncertainty. When UDCs invest heavily in primary products for exports, they undertake risk and uncertainty because of the long-run trend of instability of world prices for primary products in comparison to manufactured products.

7. State Intervention. The classical theory assumes absence of state intervention in international trade relations. But UDCs are unable to follow this principle because of their past experience when as colonies they were ruthlessly exploited by the developed countries on the plea of *laissez faire* policy. Now they have been using many instruments of commercial policy such as tariffs, import quotas, export subsidies, and state trading in their trade relations with the developed countries. On the other hand, the developed countries have also been resorting to protectionist policies to combat inflation and balance of payments problems.

8. Disequilibrium in BOP. In the classical theory the terms of trade move automatically so that there is always trade balance. Since there are no international capital movements and there is always

balanced trade, the problem of balance of payments (BOP) does not arise. But this is far from true. Instead, ever since the rise in international oil prices in 1974, both developed and underdeveloped countries have been experiencing deficits in their balance of payments. UDCs, in particular, have been faced with deterioration in their commodity and income terms of trade thereby leading to balance of payments deficits.

9. Gains from Trade not to Nationals. The assumption of the classical theory that the gains from international trade accrue to the nationals of the trading country is also not applicable to UDCs. In the majority of UDCs, especially in African countries, mines and plantations are still owned and operated by foreign nationals. The latter exploit the local people by paying low rents for their land and low wages for their labour. Moreover, the foreign firms which invest in UDCs receive concessions in the form of tax holiday, development rebate, rebate on undistributed profits, additional depreciation allowance, etc. from the local government. They also get sufficient facilities for transferring profits, dividends, interest and principle to their own country. Further, foreign concerns operating in UDCs reserve all senior executive posts for their nationals and pay them high salaries with many perks which are a huge drain on the resources of the concerned country. Thus, the major gains from trade accrue to non-nationals rather than to nationals of the country.

We may conclude that due to changing international economic scenario and peculiar economic conditions prevailing in UDCs, the classical theory of international trade is not applicable to them.

2. THEORIES OF INTERNATIONAL TRADE APPLICABLE TO UDCs

Prof. Myint¹ points out that due to its unrealistic assumptions the classical theory of comparative costs is not applicable to UDCs. But the fault lies with the classical economists for neglecting those elements of the classical theory of international trade which are

much nearer to the realities of UDCs. Myint traces those neglected elements to Adam Smith's *Wealth of Nations* and develops the "productivity theory" and the "vent for surplus" theory. We discuss these theories briefly as under:

THE PRODUCTIVITY THEORY

According to Smith, by widening the extent of the market, international trade improves the division of labour and thereby raises productivity within the trading country. The productivity theory points toward indirect dynamic benefits of a high order from international trade. By enlarging the size of the market and the scope of specialisation, international trade makes a greater use of machinery; encourages inventions and innovations; overcomes technical indivisibilities; raises labour productivity; and generally enables the trading country to enjoy increasing returns and lower costs, and leads to economic development. In the productivity theory, the process of specialisation involves adapting and reshaping the productive structure of a trading country to meet its export demand. This argument emphasises export promotion. Since international trade is beneficial in raising productivity and encouraging economic development, the state should go beyond a policy of free trade and encourage international trade and economic development. Under the influence of this theory, many colonial governments under the British did not strictly follow the policy of *laissez faire*. Rather, they encouraged monopolistic practices on the part of trading companies, taxed the local people to force them to take up wage labour, and to grow cash crops in order to promote the export trade of the colonies. Consequently, both the total value and the physical output of the exports of those colonies increased rapidly. In many colonies, the rate of increase in export production was much above the growth rate of population, thereby leading to a considerable rise in output per head.

But the increase in output per head had been not as much due to specialisation as due to (a) once-for-all increase in productivity accompanying the transfer of labour from the subsistence sector to

the mines and plantation; (b) an increase in working hours; and (c) an increase in the proportion of gainfully employed labour relatively to the disguised unemployed labour of the subsistence economy. Thus, the 19th century expansion of international trade in the UDCs seems to approximate to a simpler process based on constant returns and fairly rigid combinations of factors. Such a process of expansion could continue smoothly only if it could feed on additional supplies of factors in required proportions.

THE VENT FOR SURPLUS THEORY

Smith in his *Wealth of Nations* explains the advantages of foreign trade in terms of the “*vent for surplus*” theory, according to which trade absorbs the output of unemployed factors. To quote Smith, “When the produce of any particular branch of industry exceeds what the demand of the country requires, the surplus must be sent abroad, and exchanged for something for which there is a demand at home. Without such exportation, a part of the productive labour of the country must cease, and the value of its annual produce diminish.” In other words, *the theory states that in the absence of trade, there will be surplus productive capacity in the country. When foreign trade is started, it will not require any transfer of resources away from domestic production. Thus, there is a net gain from foreign trade.*

Myint has applied Smith’s “*vent for surplus*” theory to UDCs for measuring the effects of gains from international trade. The introduction of foreign trade opens the possibility of a “vent for surplus” (or potential surplus) in the primary producing UDCs. Since land and labour are under-utilised in the traditional subsistence sector in such a country, its opening up to foreign trade provides larger opportunities to produce more primary products for export. It can produce a surplus of primary products in exchange for imports of manufactured products which it cannot itself produce. Thus, it benefits from international trade. The vent for surplus theory, as applied to an UDCs, is explained in Fig. 1. Before trade with underutilised resources, the country is producing and consuming

OX_1 of primary products and X_1E of manufactured products at point E inside the production possibility curve AB . With the opening up of foreign trade, the production point shifts from E to D on the production possibility curve AB . Now the utilisation of formerly underutilised land and labour enables the country to increase its production of primary exportables from OX_1 to OX_2 without any sacrifice in the production of other goods and services. Given the international terms of trade line PP_1 , the country exchanges ED ($= X_1X_2$) more of primary exportables against EC larger manufactured importables.

1. H. Myint, "The Classical Theory of International Trade and the Under-developed Countries", *E.J.*, June, 1958.

APPROPRIATENESS OF THE VENT FOR SURPLUS THEORY FOR UDCs

The 'vent for surplus' theory is highly appropriate for UDCs as compared with the comparative cost theory on the following counts:

1. To Increase Export Production. The comparative costs theory is based on the assumption that in the pre-trade situation the resources of a country are given and fully employed. When the country enters into trade, its given resources are reallocated more efficiently between demand and export production. In other words, its export production can be increased only at the cost of reducing the domestic production. On the other hand, the vent for surplus theory is based on the assumption that in pre-trade situation a country possesses a surplus productive capacity over its domestic requirements. When the country enters into trade, it provides the new effective demand for the output of surplus resources which would have remained unused in the

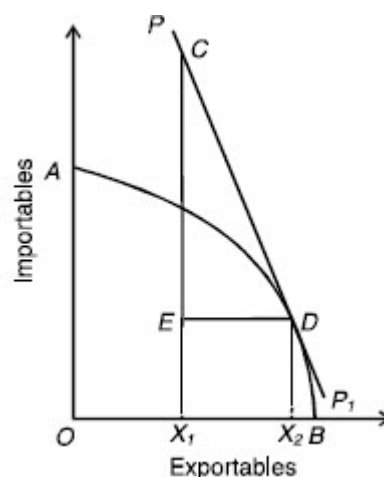


FIG. 1

absence of trade. Thus, export production can be increased without reducing domestic production.

2. Inelastic Demand for Exportable Goods. The comparative costs theory is based on the assumptions of perfect internal mobility of factors and a greater degree of elasticity both on the production and consumption sides. In contrast, the vent for surplus theory implies an inelastic demand for the exportable commodity and a considerate degree of internal mobility and specificity of resources.

3. More Utilisation of Unused National Resources. The vent for surplus theory points towards fuller utilisation of unused natural resources for export production of UDCs, because they possess surplus productive capacity. Unlike the comparative costs theory, it is not based on the assumptions of given resources and techniques. So with the discovery of new mineral resources and improvements in techniques and transport and communications, the UDCs have been able to increase the volume of their unused or surplus resources for export production.

4. More Utilisation of Unused Natural Resources. Moreover, the UDCs possess a considerable quantity of surplus productive capacity in the form of under-employed labour. The production for exports without the withdrawal of resources from domestic production leads to a larger employment of unemployed labour in such countries.

5. Fixed Technical Coefficients. The vent for surplus theory is more suited to UDCs because such economies with their small technical and capital resources operate under conditions nearer to those of fixed technical coefficient than of variable technical coefficient.

6. Limited Opportunities for Reallocation of Resources. The opportunities for reallocation of resources between products requiring different factor proportions are limited in UDCs because of inelastic demand both for their domestic goods mainly consisting of basic foodstuffs and for their export goods mainly consisting of

industrial raw materials. Thus, they may suffer from an imbalance between their productive and consumption capacities. In contrast, the modern Ohlin version of the comparative costs theory assumes that the country entering into trade already possesses a highly developed and flexible economic system. It can also adjust its methods of production and factor combinations to cope with a wide range of possible variations in relative factors supplies. But in the case of UDCs such adjustments are not possible and conditions differ there from those of developed countries as discussed above.

Conclusion. The vent for surplus theory has been described by J.S. Mill as a “surviving relic of the Mercantile theory,” because international trade permits the more efficient use of capital and labour and does not absorb into productive activity resources otherwise idle. Prof. Findlay regards “vent for surplus” as an interesting tool for the analysis of the ‘opening up’ phase in the economic history of the former colonial territories but not for the contemporary problem.

EXERCISES

1. Discuss the applicability of the classical theory of international trade on developing countries.
2. Critically examine the theory of comparative costs. Discuss its appropriateness in the context of underdeveloped countries.
3. Explain Smith’s vent for surplus theory. Why is it more appropriate for underdeveloped countries than the classical theory of international trade?
4. Examine the classical theory of comparative costs in the context of developing countries.



REFINEMENTS OF THE COMPARATIVE COSTS THEORY

1. INTRODUCTION

Economists have made certain refinements to the Ricardian Theory of Comparative Costs by dispensing with some of its assumptions. The theory is based on a simple labour theory of value and has been explained in terms of barter. It explains a two-commodity and two-country model where transport costs are absent. Further, it assumes constant costs. To make the theory realistic, economists have discarded these assumptions one by one. We explain these refinements as under:

2. THEORY OF COMPARATIVE COSTS IN TERMS OF MONEY

The classical theory of comparative costs has been explained in terms of labour cost. This is unrealistic because the actual trade relations are not based on barter but are in terms of money. Prof. Taussig¹ has explained the classical theory in money terms with the help of the following example. Before we analyse that it is essential to make certain assumptions.

ASSUMPTIONS

This analysis is based on the following assumptions:

1. There are two countries, America and Germany.
2. They produce two commodities, wheat and linen.
3. There is a given level of money wages in the two countries in a common currency. The daily wage in America is \$ 1.5 and in Germany \$ 1.
4. There are absolute differences in money prices between the two countries.
5. There is equilibrium in the balance of payments between the two countries. In case of disequilibrium in the balance of payments, gold will flow from the deficit to the surplus country, thereby changing prices and money incomes in both countries until equilibrium is restored.

[1.](#) F.W. Taussig, *International Trade*, 1927.

THE MODEL

Given these assumptions, the classical theory of international trade is explained in money terms with Taussig's following example:

In America 10 days' labour produces 20 units of wheat,
and 10 days' labour produces 20 units of linen.

In Germany 10 days' labour produces 10 units of wheat,
and 10 days' labour produces 15 units of linen.

The above example shows that America has an absolute advantage over Germany in the production of both commodities but a comparative advantage in linen. On the other hand, though Germany has a comparative disadvantage in the production of both commodities but it has a comparative less disadvantage in the production of linen than in wheat. So when they enter into trade,

America will specialise in the production of wheat and Germany in the production of linen.

To convert this real cost example in money cost, we assume that the daily money wage in America is \$ 1.5 and in Germany \$ 1. On this basis we get the monetary position in Table 1.

TABLE 1. COMPARATIVE COSTS IN MONEY TERMS

<i>Country</i>	<i>Daily wages in dollars</i>	<i>Total wages for 10 days' labour in dollars</i>	<i>Total output of 10 days labour</i>	<i>Money cost or (supply) price per unit of output in dollar</i>
America	1.5	15	20 units of wheat	0.75
	1.5	15	20 units of linen	0.75
Germany	1.0	10	10 units of wheat	1.00
	1.0	10	15 units of linen	0.66

The Table shows that the money cost (or price) of producing one unit of wheat is lower in America than in Germany. It is \$ 0.75 in America and \$ 1.00 in Germany. So America will export wheat to Germany. On the other hand, the price of one unit of linen is lower in Germany than in America. It is \$ 0.66 in Germany as against \$ 0.75 in America. So Germany will export linen to America. The trade position between the two countries as established above is in keeping with the theory of comparative costs.

In this analysis, the money wages in the two countries have been arbitrarily chosen. But this is no criticism because under our assumptions, the ratio of money wages between the two countries must be between an upper and a lower limit. It is only the choice of one or the other ratios within these limits which is arbitrary. These limits are not arbitrarily chosen. But they are fixed by the comparative efficiency of labour in each country.

We have assumed that the daily wage in Germany is \$ 1.00, then the daily wage in America cannot exceed \$ 2 ($= 2 \times \$ 1.00$). It cannot be more than double the German wage. This upper limit is fixed by the American real cost advantage in the production of wheat which is 2:1 (20 units of wheat in America: 10 units of wheat in Germany). If the American wage were to exceed \$ 2, then the American price per unit for both wheat and linen would be \$ 1.00. In this situation, the export of wheat by America would be unprofitable and would stop because one unit of wheat already costs \$ 1.00 in Germany. But America would continue to import linen from Germany. As a result, the American balance of payments would become unfavourable, gold would flow out to Germany, and prices and wages would fall in America and rise in Germany.

Similarly, the daily wage in America cannot fall below \$ 1.33 ($4/3 \times \$ 1.00$). It cannot be less than four-thirds of the German wage. This lower limit is fixed by the American real cost advantage in the production of linen which is 4:3 (20 units of linen in America: 15 units of linen in Germany). If the American wage falls below \$ 1.33, then the price per unit of linen would be the same in the two countries, *i.e.* \$ 0.66. Thus, trade in linen would stop. But America would export wheat to Germany because wheat would cost \$ 0.66 in America but \$ 1.00 in Germany. As a result, Germany's balance of payments would become adverse, gold would flow out to America and prices and wages would start falling in Germany, and rising in America. Ultimately, equilibrium in the balance of payments would be restored. But it cannot be said from the real cost ratios with definiteness what will be the limits within which the ratio of wages in the two countries will be. The Ricardian theory of comparative costs failed to answer this question. It was J.S. Mill who pointed out that the exact ratio is determined by the relative demands for the two commodities which implies that the total value of each country's export must equal the total value of its imports.

3. THE THEORY OF COMPARATIVE COSTS APPLIED TO MORE THAN TWO GOODS

The Ricardian theory of comparative costs is based on the restrictive assumption of only two goods being traded between two countries, Prof. Haberler² has extended the theory to include a number of goods. For this, he formulates the theorem that one country enjoys a comparative advantage over the other in all its export commodities relatively to all its import commodities. The same applies to the other country.

Suppose there are two countries—England and Germany that trade in ten goods A, B, C to J . Let us denote the per unit labour cost of production of a unit of the goods $A, B, C...J$ in England by $a_1, b_1, c_1...j_1$ where the subscript 1 refers to England; similarly in Germany it is $a_2, b_2, c_2...j_2$ where Germany is denoted by subscript 2.

Let the money cost per unit (or supply prices) of these goods in England be $Pa_1, Pb_1, Pc_1...Pj_1$, and $Pa_2, Pb_2, Pc_2...Pj_2$ in Germany respectively. Now suppose that the average money wage in England is W_1 and in Germany W_2 .

From the above relationships, it follows that the money cost per unit of each good (Pa_1) is equal to the per unit labour cost of production (a_1) multiplied by the average money wage (W_1) in that country. It can be expressed in equation form for each country as under:

England: $Pa_1 = a_1 W_1$; $Pb_1 = b_1 W_1$; $Pc_1 = c_1 W_1... Pj_1 = j_1 W_1$.

Germany: $Pa_2 = a_2 W_2$; $Pb_2 = b_2 W_2$; $Pc_2 = c_2 W_2 ... Pj_2 = j_2 W_2$.

It can also be said that the relative prices of goods in each country are fixed by their per unit labour cost of production in the two countries so that

in England: $Pa_1 : Pb_1 : Pc_1... : Pj_1 = a_1 : b_1 : c_1... : j_1$. and

in Germany: $Pa_2 : Pb_2 : Pc_2... : Pj_2 = a_2 : b_2 : c_2... : j_2$

In order to determine the absolute level of the money prices, it is essential to include the absolute rates of money wages. For this, let R be the rate of exchange, that is, the number of units of currency of Germany which exchange for one unit of the currency of England. Thus, the price of, say good A , in the two countries expressed in terms of Germany's currency will be:

in England: $a_1 \times W_1 \times R$; and

in Germany: $a_2 \times W_2$

2. G. Von Haberler, *The Theory of International Trade*, 1950.

Suppose that England exports good A to Germany then the relation $a_1 \times W_1 \times R < a_2 \times W_2$ will apply because the supply price (or money cost) of good A is lower in England than in Germany. Similarly, if England imports good B from Germany, then the relation $b_1 \times W_1 \times R > b_2 \times W_2$ applies.

It follows from the relations that

$$\therefore a_1 \times W_1 \times R < a_2 \times W_2 = \frac{a_1}{a_2} < \frac{W_2}{W_1 \times R}$$

$$\text{and } b_1 \times W_1 \times R > b_2 \times W_2 = \frac{b_1}{b_2} > \frac{W_2}{W_1 \times R}$$

$$\therefore \frac{a_1}{a_2} < \frac{b_1}{b_2}$$

It shows that England enjoys a comparative advantage in the production of good A which it exports to Germany. The same rule will apply to all its export goods relatively to its import goods. If the various goods $A, B, C \dots J$ are arranged in order of the comparative advantage of England over Germany, then the relationship will be:

$$\frac{a_1}{a_2} < \frac{b_1}{b_2} < \frac{c_1}{c_2} \dots < \frac{j_1}{j_2}$$

If a line is drawn dividing the goods which England exports from those which it imports, all the former will be on one side of the line, and the latter on the other side of the line, without changing the order in which they are arranged as shown below:

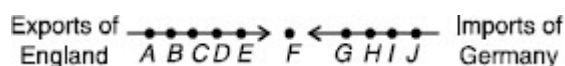


FIG. 5.1

It will not be possible for England to export *A* and *C* and import *B*. It will have to export goods *A* to *E* to Germany and import *G* to *J* from the latter. *F* is the commodity which both will produce but not trade.

According to Haberler, so long as our assumptions continue to cover only the cost data, we cannot determine the exact position of the dividing line. In order to determine its exact position, we must introduce the further condition that the credit side and the debit side of the balance of payments must be equal. For this, the quotient $W_2/W_1 \times R$ determines the position of the dividing line between exports and imports of the two countries. In this quotient, W_2/W_1 is the relative wage level and R is the rate of exchange between England and Germany. It is the change in W_2/W_1 or R that affects the credit and debit sides of the balance of payments. This can be explained in terms of the following cost data for the two countries given in Table 2:

TABLE 2. LABOUR HOURS REQUIRED TO PRODUCE ONE UNIT OF GOOD

	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	<i>F</i>	<i>G</i>	<i>H</i>	<i>I</i>	<i>J</i>
Real cost per unit in England expressed in labour hours ($a_1, b_1, c_1, \dots, j_1$)	10	10	10	10	10	10	10	10	10	10
Real cost per unit in Germany expressed in labour hours ($a_2, b_2, c_2, \dots, j_2$)	60	50	40	30	20	10	8	6	4	2

In the above Table, the cost data show that the real cost per unit of each in England is uniform. If money wages are the same in both countries ($W_2 / W_1 \times R = 1$), it can be known from the Table which goods will be exported and imported, and at what money prices. England will export goods *A* to *E* at a price of 10 per unit. Good *F*, whose price is the same in both countries, will not be traded, and will be produced by both England and Germany. On the other hand, Germany will export good *G* at a price of 8 per unit, good *H* at a price of 6 per unit, good *I* at a price of 4 per unit, and good *J* at a price of 2 per unit. It is apparent that for goods *A* to *J* Germany has a comparative advantage. However, the exact number of goods exported and imported depends on the reciprocal demand of the two countries whether or not this situation maintains equilibrium in the balance of payments.

Haberler points out that if the rate of exchange remains stable, equilibrium in the balance of payments will be achieved through a rise in money wages in one country or a fall in the wages in the other country or a combination of the two. Or, the money wages in both countries may remain stable and equilibrium will be achieved through a shift in the exchange rate. But the mechanism may act under the influence of the monetary systems and banking policies of the two countries. The result will always be a change in the ratio of money wages between the two countries: $W_2/W_1 \times R$.

To illustrate, suppose that money wages in Germany rise by 10 per cent ($W_2/W_1 \times R = 11$), then the cost of good *F* in Germany would be 11 per unit so that it would import good *F* from England. Similarly, the exchange rate *R* affects the good *F* lying on the dividing line between the two countries.

Suppose England's balance of payments is adverse because its demand for the products of Germany increases. Assuming that there is gold standard, as it prevailed during Ricardo, gold will flow from England to Germany. Consequently, prices and wages will rise in Germany, and fall in England. It means that W_1 will become smaller and W_2 greater, and the quotient $W_2/W_1 \times R$ increases. The dividing

line shifts and good *F* moves into the group of goods being exported by England. The balance of payments is now in equilibrium because (a) good *F* is now exported, (b) the other export goods *A* to *E* of Germany become cheaper, and (c) the export goods *G* to *J* of Germany become dearer. If this fails to bring equilibrium in the balance of payments of England, the gold will continue to flow out of it and the dividing line may continue to move to the right so that England exports good *G* instead of importing it and so on until equilibrium is achieved. Thus, Haberler has shown that the wage rate and the exchange rate are the two important variables which determine the goods which the two countries can export and import from each other on the basis of comparative advantage. This, in turn, increases their total output. The division of this gain between the two countries depends upon the exact position of the dividing line between their export and import goods.

4. THEORY OF COMPARATIVE COSTS IN TERMS OF TWO GOODS AND MANY COUNTRIES

The theory of comparative costs is based on the assumption of two countries. This is unrealistic because trade takes place among many countries. In order to explain this multi-country model, we take three countries *A* (America), *B* (Britain) and *C* (Canada) that produce two goods *X* and *Y*. Their respective cost conditions are illustrated in Table 3.

TABLE 3. LABOUR HOURS REQUIRED TO PRODUCE ONE UNIT OF GOODS *X* AND *Y*

<i>Goods</i>	<i>Countries</i>		
	<i>A</i>	<i>B</i>	<i>C</i>
<i>X</i>	30	30	30
<i>Y</i>	60	90	70
Comparative Cost Ratios	1:2	1:3	1:2.33

First take only two countries *A* and *B*. We find from the Table that country *A* has a comparative advantage in the production of good *Y* and country *B* has the least comparative disadvantage in the production of good *X*. Country *A* will, therefore, export good *Y* to *B* and import good *X* from it. So far as country *C* is concerned, it has a comparative advantage in the production of

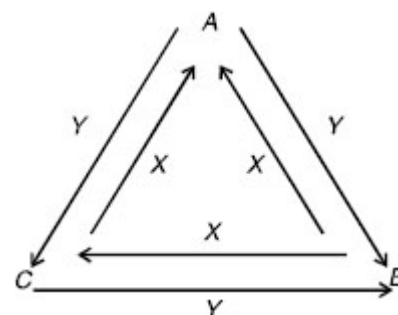


FIG. 2

good *Y* over country *B*. It will, therefore, export good *Y* to *B* and import good *X* from it. Now take countries *A* and *C*. Country *A* has a comparative advantage in the production of good *Y* over country *C*. Country *A* will, therefore, export good *Y* to country *C* and import good *X* from it. The trade relations among the three countries are depicted in Figure 2, where the direction of the arrow shows exports to the concerned country. Thus, the trade relations among the three countries will be as under:

1. Country *A* will export *Y* to both *B* and *C* and import good *X* from them.
2. Country *B* will export *X* to both *A* and *C* and import good *Y* from them.
3. So far as country *C* is concerned, it has either of the three possibilities: (a) it may produce *Y* and send it to country *B* like *A*, in exchange for good *X*; (b) it may produce *X* and send it to country *A*, like *B*, in exchange for good *Y*; or (c) it may not trade in any of the two commodities and produce only for domestic consumption.

In fact, the goods in which country *C* specialises will depend upon the rate of exchange between the two goods which, in turn, depends upon the reciprocal demands of the three countries for goods *X* and *Y*. If, for instance, the demand for good *Y* is more on the part of country *B*, it will import it from both *A* and *C*. Country *C* will thus specialise in the production of good *Y*. On the other hand, if the demand for good *X* is more on the part of country *A*, it will import it

from both *B* and *C*. Country *C* will then specialise in the production of good *X*.

We have limited our discussion to the case of three countries which can be extended to more countries on the basis of the explanation given above. However, we conveniently illustrate diagrammatically the case of five countries. Suppose that there are five countries *A*, *B*, *C*, *D* and *E* producing two goods *X* and *Y* as shown in the Figure 3. The horizontal axis shows the maximum output *OX* of good *X* that all the five countries can produce, when the output of good *Y* is zero. Similarly, the vertical axis shows the maximum output *OY* of good *Y* that all countries can produce, if the output of good *X* is zero. By joining *X* and *Y* we get the world production possibilities curve *XY* representing the five countries. This curve shows that the five countries *A*, *B*, *C*, *D* and *E* can produce *AA*₁, *BB*₁, *CC*₁, *DD*₁ and *EX* good *X* respectively so that their total output *OX* = *AA*₁ + *BB*₁ + *CC*₁ + *DD*₁ + *EX*, when they do not produce good *Y*. Similarly, if they do not produce good *X*, then the total output of *Y* good, *OY* = *A*₁*B* + *B*₁*C* + *C*₁*D* + *D*₁*E*. The triangles *AA*₁*Y*, *BB*₁*A*₁, *CC*₁*B*₁, *DD*₁*C*₁ and *EXD*₁ are the production possibilities frontiers of countries *A*, *B*, *C*, *D* and *E* respectively. They have been so arranged that country *A* has the lowest opportunity cost for good *X*, country *B* has the next lowest and so on. This can be expressed in terms of the ratio of labour inputs for goods *X* and *Y* as:

$$\frac{X_a}{Y_a} < \frac{X_b}{Y_b} < \frac{X_c}{Y_c} < \frac{X_d}{Y_d} < \frac{X_e}{Y_e}$$

This shows that as more and more production of *X* is desired, the shift from the production of goods *Y* to *X* takes place first in the country most efficient in the production of *X* among those countries which have not already completely specialised on this good. Thus, there is a “chain of comparative advantage” determined by

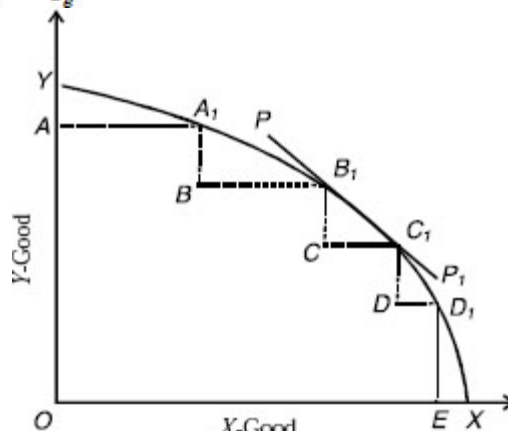


FIG. 3

technological differences between the countries.

Assuming identical demand conditions with unitary income elasticities at all price ratios in the five countries, we can show the point in the diagram where the world supply is equal to world demand. Suppose the world equilibrium price-ratio (or terms of trade) coincides with country C 's pre-trade price ratio, as shown by the line PP_1 in Figure 3 which is tangent to its production possibility frontier B_1C_1 . Thus, given the world equilibrium price ratio PP_1 , countries A and B will specialise completely on the production of good X and import their requirements of Y from countries D and E . On the other hand, countries D and E will specialise completely in the production of good Y , and import their requirements of X from countries A and B . Country C will produce both goods, and in general may be either an exporter of goods X or Y , or may not enter into trade at all.

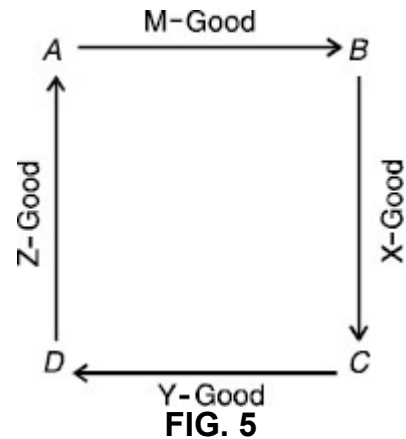
If there is a wider shift in world demand, it will break the chain of comparative advantage. Suppose the change in world demand shifts the equilibrium point from the linear segment B_1C_1 to C_1D_1 . Then country D will assume the role of country C and the world price ratio will shift from country C 's to D 's pre-trade price ratio which has not been shown on the diagram.

5. MULTI-COUNTRY AND MULTI-GOODS TRADE MODEL

The above analysis can be extended to the general case of many countries and many goods. But it requires the use of mathematics in terms of Walras's law, which makes the solution complex and difficult. However, it can be shown on the basis of production costs that in a multi-country multi-goods trade model, each country specialises in one or more commodities. For the sake of simplicity, we take four countries A , B , C and D which produce four goods M , X , Y and Z . Their respective cost conditions are shown in Table 4.

Goods	Countries			
	A	B	C	D
M	30	40	45	50
X	30	25	35	40
Y	30	45	20	25
Z	30	50	32	15

The table reveals that the cost of producing one unit of good *M* is the lowest (30 labour-hours) in country *A*. Therefore, country *A* will specialise in the production of good *M*. Similarly, country *B* will specialise in the production of good *X* because its cost of production is the lowest (25 labour-hours) in this country; country *C* will specialise in the production of good *Y* because its cost of production is the lowest (20 labour-hours) in



this country; and country *D* will specialise in the production of good *Z* because its cost of production is the lowest (15 labour-hours) in this country as compared with other three countries. In the multi-country and multi-good model explained above, trade is possible on the basis of comparative costs. But it will be a one-sided trade because it is not easy to determine comparative cost ratios in the case of many countries and many goods. This is explained in terms of Figure 4 where the direction of each arrow shows exports to other country. Thus, country *A* exports good *M* to country *B*; country *B* exports good *X* to country *C*; country *C* exports good *Y* to country *D*; and country *D* exports good *Z* to country *A*. The figure reveals that each country exports only one good and also imports only one good. But it does not import the good from the country to which it exports its own commodity. Each pays the other country via the third country. Thus, country *B* pays to country *A* for its imports of good *M* through its export earnings of good *X* from country *C*. Similarly, country *C* pays for its imports of good *X* from country *B* through exports earnings of good *Y* from country *D*. Country *D* pays for its imports of good *Y* from country *C* through its export earnings of goods *Z* from country

A. Country A, in turn, pays to country D through its export earnings of good M from country B. Thus, trade is possible in a multi-country, multi-commodity model because the total value of exports and imports of each country is equal and world trade is ultimately balanced.

6. COSTS OF TRANSPORT UNDER THE THEORY OF COMPARATIVE COSTS

The classical theory of international trade assumes that transport costs are zero. This is unrealistic because transport costs influence the price and the quantity of a good traded between the two countries. With the inclusion of transport costs, a good will be traded only if the price difference between the countries before trade is more than the cost of transporting it between them. The direct effects of transport costs are explained with the help of Figure 5.5. It is assumed that there are two countries—Germany and America. They trade in one commodity cloth. Germany imports cloth and America exports it. The price of cloth is measured vertically on a common axis, O. Quantities of cloth produced and demanded are read from O to the right for the exporting country America (x), and to the left for the importing country Germany (m). The demand and supply curves for the two countries are shown by D and S respectively and are drawn back-to-back.

Before trade, each country produces the quantity at a price as determined by the intersection of their demand and supply curves at E_m in Germany and at E_x in America. When trade begins, price will be reduced for importing country, Germany, and increased for the exporting country, America. Now the price is OP which is reflected by the horizontal price line PP . This line cuts the D and S curves of Germany at G and G_1 , and of America at A and A_1 respectively. America produces Ox , consumes Odx and exports $dxsx$, while Germany produces Osm , imports $smdm$, and consumes Odm .

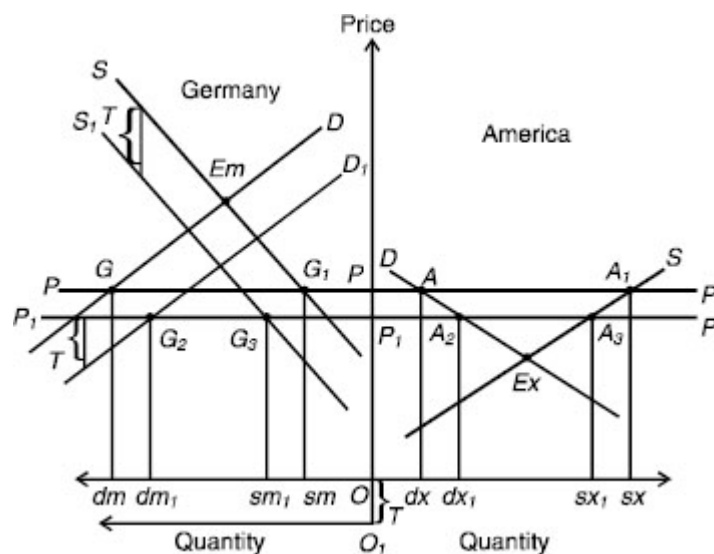


FIG. 5

When transport costs are introduced, the exporting country, America, regards them as equivalent to a reduction, by the amount of the transport costs, in the price of cloth which it can obtain by selling it to Germany. This is shown by lowering, both the D and S curves of Germany, relatively to that of America, by the amount of the transport costs T . Thus, on the left side of the figure, the curves D and S are replaced by the parallel curves D_1 and S_1 by the amount of T .

The price in America falls from OP to OP_1 and the price in Germany increases by the difference between the amount of transport costs and PP_1 . The difference between the price in America and the price in Germany must equal the amount of transport costs. The raised price in Germany is shown by lowering the axis by OO_1 which equals the transport costs T , i.e. $OO_1 = T$.

Now the horizontal price line P_1P_1 intersects the D and S curves of the exporting country America at A_2 and A_3 respectively. Due to a fall in the price of cloth, it produces Osx_1 , which is less than Osx , quantity produced earlier, consumes Odx_1 which is more than Odx , quantity consumed earlier, and exports dx_1sx_1 which is less than $dxsx$ quantity country Germany, the price line P_1P_1 intersects the new

demand and supply curves D_1 and S_1 at G_2 and G_3 respectively. Due to rise in the price of cloth, production increases from Osm to Osm_1 , consumption falls from Odm to Odm_1 , and consequently, imports also fall from $dmsm$ to dm_1sm_1 . But exports from America exactly equal imports by Germany $dx_1sx_1 = dm_1sm_1$.

Thus, as compared to the equilibrium position when there are no transport costs, the imposition of transport costs raises the price of the commodity in the importing country and lowers it in the exporting country. Consequently, the exporting country produces less, consumes more and exports less, than before. On the other hand, the importing country produces more, consumes less and imports less than before. Therefore, specialisation in production and the volume of trade are reduced, and so are the gains from trade.

7. VARIABLE COSTS OF PRODUCTION UNDER THEORY OF COMPARATIVE COSTS

The theory of comparative costs is based on the assumption of constant costs or constant returns.

But this is unrealistic because in the real world there are either increasing costs or diminishing costs.

Haberler has shown with help of his theory of opportunity cost that the law of comparative costs is also valid under increasing opportunity cost. But specialisation is incomplete due to decreasing returns.³

So far as trade under decreasing costs is concerned, there has been a controversy between Frank Graham and Haberler. First, we take Graham's arguments and then Haberler's criticism.

GRAHAM'S VIEW ⁴

Graham does not agree with the classical view that when production is subject to the law of decreasing costs, specialisation will increase the volume of production of the trading countries. With the help of an arithmetical example, he shows that specialisation between two countries will diminish the volume of production and bring considerable loss to one of the trading countries. In order to prove this, he takes the case in which a country encouraged by the comparative cost situation specialises in the increasing costs industry and gives up decreasing costs industry. Under such a situation, the volume of production of the country will diminish than without trade.

Graham gives the following example to explain his view.

There are two countries England and America that produce two goods—wheat and watches. Suppose that before international trade begins, 40 units of wheat are exchanged for 40 units of watches in England, and 40 units of wheat for 37 units of watches in America. Thus, America has a comparative advantage in the production of wheat and England in that of watches. Graham assumes that the production of wheat is subject to increasing costs and that of watches to decreasing costs in America. Further, he assumes that both the goods are subject to constant costs in England. The international exchange ratio is assumed to be 40 units of wheat to 40 units of watches. Given these assumptions, it will be profitable for America to shift resources from the production of watches to wheat.

Suppose that the production of watches in America is reduced by 37,000 units and the resources so released produce an additional 37,500 units of wheat which are less than 40,000 units of wheat produced earlier due to the operation of law of increasing costs in its production. These 37,500 units of wheat will exchange for 37,500 units of English watches. But the reduction in the production of watches in America increases their average cost of production. Now suppose that only 36 watches can be manufactured with the same cost as were 37 watches before the first transfer of resources. The

shift into wheat can be obtained in exchange for the resources required for the manufacture of 36 watches.

Let the production of watches be reduced further by 36,000 units and the resources so released are used for the production of wheat which produces 36,200 units of wheat. Now 36,200 units of wheat can be exchanged for 36,200 English watches. Thus, through trade America gets 73,700 ($= 37,500 + 36,200$) watches as against 74,000 ($= 37,000 + 37,000$) watches which it was producing domestically before trade. So there is a loss of 300 watches ($= 74,000 - 73,700$) to America from trade. This process will continue and the loss will become greater until the American watch industry is displaced by the English and America completely specialises in the production of wheat.

Conclusion. Graham thus repudiates the classical view that when production is subject to the law of decreasing costs, specialisation along the comparative costs will increase the volume of production of the trading countries. Rather, he has shown that the volume of production of the country producing under decreasing costs will diminish after trade. The policy implication of Graham's view is that the industry under decreasing costs can survive only if it were temporarily protected by a tariff.

[3.](#) For details refer to Chapter "Haberler's Theory of Opportunity Cost."

[4.](#) F.D. Graham, *The Theory of International Values*, 1948.

CRITICISMS OF GRAHAM'S VIEW

Haberler has criticised Graham's view of decreasing costs on the following grounds:

1. Invalid Assumption of Decreasing Costs. According to Haberler, Graham's conclusion is valid only if his assumptions that costs decrease continuously as production expands, and increase continuously as production contracts in the decreasing costs industry, are acceptable. But Graham failed to realise that the basis

of international trade is comparative differences in costs rather than decreasing costs. Thus, the assumption of decreasing costs is invalid.

2. Decreasing Costs Incompatible with Perfect Competition. Graham's theory rests upon the assumption of perfect competition. Haberler regards this assumption as "highly precarious". This is because when an industry is operating under the law of decreasing costs, it is inconsistent with a long-run competitive equilibrium. As such, as an industry expands, its costs will diminish continuously so that it will become a monopoly concern in the long-run. So perfect competition and decreasing costs are incompatible.

3. Beneficial for Monopolist. If due to decreasing costs, the industry is already a monopoly, the monopolist has full control over his supply. He will try to produce as much that can increase his total revenue. He may even produce more in order to further reduce his cost of production and thus lower price. Thus decreasing costs may benefit the monopolist and the country from trade.

4. External Economies Vague and Indefinite. Knight examines the case of decreasing costs due to external economies. Economies that are external to a firm are internal to an industry. However, there may be some firm in the other industry for which the benefit of external economies is so large that it may emerge as a monopoly firm in the industry. Thus, Graham's view is again falsified because it is based on the assumption of perfect competition. Moreover, according to Haberler, external economies are somewhat vague and indeterminate in nature. It is difficult to estimate their extent or value. Further, they partly relate to factors which cannot be appropriated by the entrepreneur such as the capacities of skilled persons.

5. Failure to distinguish between Average and Marginal Relationship. Another weakness in Graham's analysis is that he failed to distinguish clearly between average and marginal relationship. According to Viner, Graham's analysis is in terms of average costs. If he had dealt with this problem in terms of marginal costs and marginal returns for both industries, he could not have

obtained the result unfavourable to trade. In Graham's example, when a producer transfers resources from the production of watches to that of wheat, he gains only the marginal increment of wheat and loses the marginal output of watches. Since the marginal output of watches is less than the marginal increment of wheat, no resources will be transferred from watch production to wheat production. This is because the loss in marginal returns is greater than the gain. Such a situation goes against the profit-maximising rule of the producer.

6. Incomplete Analysis. Graham's assumption that watch-making and wheat-growing in England are subject to constant costs does not fully explain his thesis of trade under decreasing costs. He does not analyse the trade relations between the two countries when the two goods are producing under the same laws of production in England as in America. Therefore, his analysis is incomplete.

7. Basis of Trade Comparative Cost Differences. In his analysis, Graham fails to realise that the basis of trade is differences in comparative costs, and decreasing costs in one of the causes that explain why comparative costs differ.

Conclusion. Despite these criticisms, economists have developed Graham's theory by depicting diagrammatically and analysing the case when one commodity is produced under decreasing costs and the other under increasing costs. [5](#)

EXERCISES

1. Explain the theory of comparative costs in a money economy.
2. Explain the classical theory of comparative costs when it is modified by the introduction of more than two goods and two countries.
3. How will you explain the theory of comparative costs when transport costs are introduced?
4. Explain the effects of decreasing costs on international trade.

5. Explain the classical theory of comparative costs when there are more than two goods.
6. Critically examine Graham's thesis of trade under decreasing costs.

[5.](#) See the last figure in chapter 6, "Haberler's Theory of Opportunity Cost."



HABERLER'S THEORY OF OPPORTUNITY COSTS

1. INTRODUCTION

The most severe criticism of Ricardo's comparative costs theory has been that it is based on the labour theory of value. The labour theory of value states that the value of a commodity is equal to the amount of labour time involved in the production of that commodity. This means that labour is the only factor of production, labour is homogeneous and labour is used in the *same* fixed proportions in the production of all commodities. But all these assumptions are unrealistic because (i) labour is not the only factor of production as commodities are produced in combination with other factors, such as land, capital and other resources; (ii) labour is not homogeneous but is heterogeneous, of different kinds and grades divided into many non-competing groups; and (iii), labour is used in varying proportions in the production of different commodities, and labour is also substitutable for capital, and vice-versa.

Haberler's opportunity costs theory¹ overcomes these shortcomings and explains the doctrine of comparative costs in terms of what he calls 'the substitution curve' or what Samuelson terms 'production possibility curve' or 'transformation curve', or what Lerner calls 'production indifference curve', or production frontier.

2. THE THEORY OF OPPORTUNITY COSTS

The opportunity costs theory says that if a country can produce either commodity *X* or *Y*, the opportunity cost of commodity *X* is the amount of the other commodity *Y* that must be given up in order to get one additional unit of commodity *X*. Thus the exchange ratio between the two commodities is expressed in terms of their opportunity costs. The concept of opportunity costs has been illustrated in international trade theory with production possibility curves.

ASSUMPTIONS

Haberler makes the following assumptions for his theory.

1. There are only two countries, say *A* and *B*.
2. Each country possesses two factors of production, labour and capital.

[1.](#) G. Haberler, *The Theory of International Trade*, 1936.

3. Each country can produce two commodities, say *X* and *Y*.
4. There is perfect competition in both the factor and commodity markets.
5. The price of each commodity equals its marginal money costs.
6. The price of each factor equals its marginal value productivity in each employment.
7. The supply of each factor is fixed.
8. There is full employment in each country.
9. There is no change in technology.

10. Factors are immobile between the two countries.
11. Factors are completely mobile within countries.
12. Trade between the two countries is completely free and unrestricted.

EXPLANATION OF THE THEORY

Given these assumptions, a production possibility curve shows the various alternative combinations of the two commodities that a country can produce most efficiently by fully utilising its factors of production with the available technology. The slope of the production possibility curve measures the amount of one commodity that a country must give up in order to get an additional unit of the second commodity. In other words, the slope of the production possibility curve is its marginal rate of transformation (MRT).

It is the shape of the production possibility curve under different cost conditions that determines the basis and the gains from international trade under the theory of opportunity costs. If the amount of *Y* required to be given up to get additional quantity of *X* remain constant, the production possibility curve would be a straight line and it would indicate *constant* opportunity costs. If more quantity of *Y* is required to be given up in order to have an additional quantity of *X*, the production possibility curve would be concave to the origin and it would indicate *increasing* opportunity costs. Lastly, if in order to get an additional quantity of *X*, less quantity of *Y* is required to be given up, the production possibility curve would be convex to the origin, and it would indicate diminishing opportunity costs.

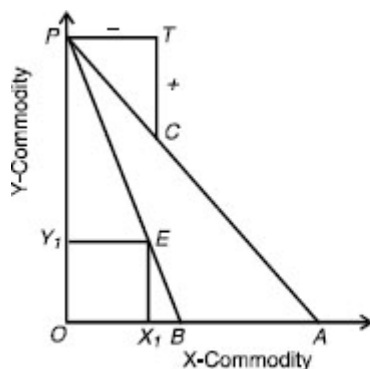


FIG. 1

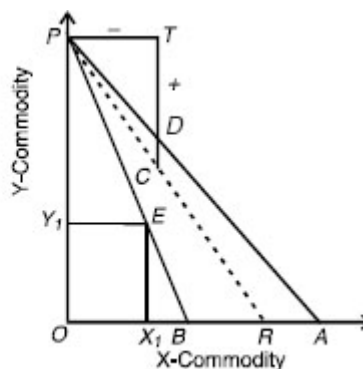


FIG. 2

Trade under Constant Opportunity Costs. Under constant opportunity costs, the production possibility curve is a straight line. In figure 1, PA is the production possibility curve of country A , and PB of country B . Country A can produce either OP of Y or OA of X , and similarly country B can produce either OP of Y or OB of X . If they want to produce both commodities, then they must be on any one point of their respective production possibility curves. For instance, at point E country B can produce OX_1 of X and OY_1 of Y . Since the slope of a production possibility curve determines the relative prices of the two commodities, they are the same at all points on a straight line curve. This is because the opportunity cost of leaving a unit of one commodity in order to have an additional unit of the other is constant. Thus the cost ratio (or the relative prices) of the two commodities in country B is OP/OB , and in country A , OP/OA .

As the relative prices differ in the two countries, trade is possible between the two. Taking the two countries A and B , both can produce the same amount OP of Y , but A can produce a larger amount of X . It can produce OA of X as compared to OB of country B . So commodity X will be cheaper in A than in B , and Y will be relatively cheaper in B than in A . So A has a comparative advantage in the production of X , and B has a comparative advantage in the production of Y . Under these circumstances, country A will specialise in the production of commodity X and export it to B , and country B will specialise in the production of commodity Y and export it to A . Suppose B is a smaller country than A and enters into trade with the latter country. Since A is a large country, let its internal price ratio as represented by the curve PA be the international price ratio for B .

Before trade, *B* was consuming and producing at point *E* on its domestic price line *PB*. After trade, *B* can specialise in the production of only *Y*. It can move from point *E* to point *P* and produce there. It also increases its consumption from point *E* to *D* on the new international price line *PA*, where it consumes *PT* of *X* by importing it from *A* and exporting *TD* of *Y* to it at the international terms of trade represented by the line *PA*. So after entering into trade with *A*, country *B* has definitely gained.

But country *A* has not gained from trade with *B* because the relative prices of commodities *X* and *Y* did not change in it before and after trade, as shown by the line *PA*. In reality, “the price after trade may be the same as the price before trade for one of the parties. It cannot be the same for both. Both countries must trade at the same price. Since their prices had differed before trade and are the same after trade, the price of at least one must have altered. The post-trade price can, however, differ from pre-trade price for both.”

The pre-trade and post-trade situation of country *B* is now shown in Fig. 2 where *PR* is the new international price line. Before trade, it was consuming and producing both the commodities at point *E*. After trade it specialises exclusively in the production of *Y* at point *P*, and its consumption level shifts up from point *E* to *C* on the international price ratio *PR*. It will now export *TC* of *Y* to country *A* in exchange for *PT* of *X*. In this situation, country *B* will not gain as much as in the previous example, but country *A* will definitely share the gains from international trade.

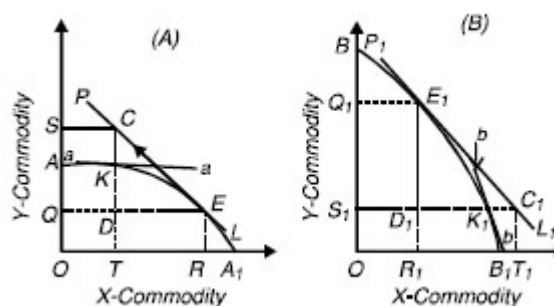


FIG. 3

Trade under Increasing Opportunity Costs. The above analysis of constant opportunity costs is based on the assumptions that factors of production are used in the same fixed proportions due to perfect substitutability for the production of both commodities, and that all

units of each factor of production are homogeneous. But these assumptions are unrealistic. As a matter of fact, factors of production cannot be substituted for each other in the production of the two commodities. Moreover, some factors are more suited for the production of one commodity than for the other.

The production possibility curve under increasing opportunity costs is concave to the origin because when a country specialises in the production of one commodity, in which it possesses comparative advantage, its opportunity costs increase. In Fig. 3 Panel (A), AA_1 is the production possibility curve of country A which is concave to the origin. The slope of this curve shows that this country will specialise in the production of commodity X. As we move from point A towards point A_1 on this curve, country A will give up larger and larger units of commodity Y in order to have additional units of commodity X. Thus the country faces increasing opportunity costs as it produces each additional unit of commodity X in which it specialises.

On the other hand, Panel (B) of Fig. 3 shows BB_1 as the production possibility curve of country B. The slope of this curve reveals that it will specialise in the production of commodity Y. As we move upwards from point B_1 to B along this curve, country B will give up larger and larger units of X in order to produce additional units of commodity Y. Thus country B faces increasing opportunity costs as it produces each additional unit of commodity Y in which it specialises.

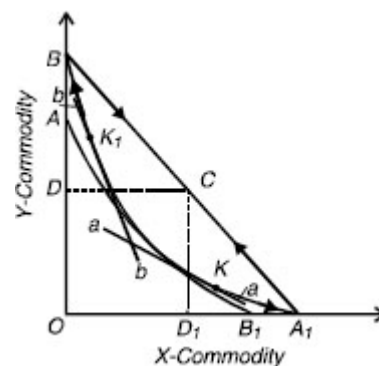


FIG. 4

Suppose that in the absence of foreign trade, country A produces and consumes some quantities of both X and Y at point K, where the line aa is tangent to the production possibility curve AA_1 . The line aa indicates the domestic relative commodity price of X and Y as shown in Fig. 3(A). Similarly, country B produces and consumes some quantities of the two commodities at point K_1 where its priceline bb is tangent to the production possibility curve BB_1 , as shown in Fig. 3 (B).

Now suppose, both countries decide to trade with each other. This is only possible if the international price ratio of the two commodities differs from that prevailing in the domestic market of each country. Let us assume that the international price ratio (or the terms of trade) is given by the line PL in country A and P_1L_1 in country B . Since PL is parallel to P_1L_1 , the international terms of trade are the same for both the countries.

First take country A where the new equilibrium point as determined by the price line PL is E , as shown in Fig. 3 (A). It means that commodity X has become more expensive in international market than it is in the domestic market. This is because the slope of PL is greater than the domestic price line aa . As a result, it is in the interest of country A to shift some of its factors of production from the production of Y to X , by moving its production level from point K to point

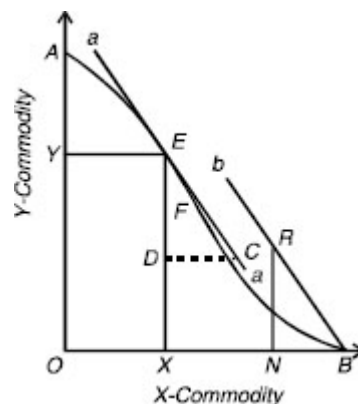


FIG. 5

E on the production possibility curve where the international price line PL is tangent. It will thus produce OR of X and OQ of Y . The consumption point for country A will be at C on the price line PL . It will then export TR of X and import QS of Y , and domestically consume OT of X and OQ of Y . Its export and import can also be shown by the “trade triangle” CDE where DE ($= TR$) is the export of X and DC ($= QS$) is the import of Y . Similarly, the consumption of X is QD ($= OT$) and of Y is TD ($= OQ$). Thus by entering into trade country A is able to consume more of both X and Y because point C is above and to the right of point K .

Take country B where the new equilibrium point, as determined by the international price line P_1L_1 , is tangent to the production possibility curve BB_1 at point E_1 , as shown in Fig. 3 (B). It means that commodity Y has become more expensive in the international market than in the domestic market. This is because the slope of P_1L_1 is less steep than the domestic price line bb . It will, therefore, be in the interest of country B to shift some of its resources from the

production of X and Y , by moving its production level from point K_1 to E_1 . It will then produce OQ_1 of Y and OR_1 of X . The consumption point of country B will be at C_1 on the price line P_1L_1 . It will import D_1C_1 of X and export D_1E_1 on Y of the trade triangle $E_1D_1C_1$. It will domestically consume OS_1 of Y and OR_1 of X . Thus country B is also better off by entering into trade with country A because it is able to consume more of both X and Y , as the consumption point C_1 after trade is above and to the right of point K_1 .

But under increasing opportunity costs specialisation is always incomplete due to decreasing returns. Hence the gains from trade are less than that under complete specialisation.

Further, the law of comparative costs is valid only under increasing opportunity costs. "In a two-goods world if one country is more efficient in producing both goods than another country, it profits by concentrating on the product in which it has a greater comparative advantage and buying the goods in which it has a comparative disadvantage. The basic criterion is that with trade it gets a higher price for its speciality or pays a lower price for the commodity in which it is relatively not so productive."

Trade under Decreasing Opportunity Costs. When two countries experience decreasing opportunity costs, their production possibility curves are convex to the origin. Under decreasing opportunity costs, each country completely specialises in the production of only one commodity after trade. This is because there are increasing returns based on internal economies of production.

Trade under decreasing opportunity costs is illustrated in Figure 4 where AA_1 is the production possibility curve of country A , and BB_1 is that of country B . The pre-trade consumption and production point of country A is K where its domestic price line aa is tangent to the production possibility curve AA_1 . Similarly, the pre-trade consumption and production point of country B is K_1 where its domestic price line bb is tangent to its production possibility curve BB_1 . The slope of the

domestic price line aa of country A shows that its comparative advantage is greater in the production of commodity X . Similarly, the slope of country B 's domestic price ratio bb reveals its greater comparative advantage in the production of commodity Y . But the points K and K_1 are not of stable equilibrium because of the operation of increasing returns in the production of each commodity in the respective country. Any slight disturbance in the form of increasing the price of the specialised commodity in relation to the other will lead to its complete specialisation in that country.

Suppose they enter into trade with each other and the international price ratio line in BA_1 . This line BA_1 is steeper than the domestic price line aa of country A . It means that commodity X has become more expensive in the international market. So A will completely specialise in the production of X and accordingly shift all its resources to its production and move from point K to A_1 . On the other hand, the international price line BA_1 is flatter than the domestic price line bb of country B . It means that commodity Y has become more expensive in the international market. Accordingly, B will shift all its resources to the production of Y and completely specialise in its production and move from point K_1 to B .

Thus country A will completely specialise in the production of X at point A_1 , and country B will completely specialise in the production of Y at B . Now each will move along the international price line BA_1 , country A from point A_1 upward and country B from point B downward, and reach point C in consumption. A will export D_1A_1 of X to country B and import D_1C of Y from it on the trade triangle CD_1A_1 and consume OD_1 of X at home. Similarly, country B will export DB of Y to country A and import DC of X from it on the trade triangle BDC , and consume OD of Y domestically.

Trade under Decreasing and Increasing Opportunity Costs. It is not possible that both the commodities may be produced either under decreasing opportunity costs or under increasing opportunity costs. Rather, the situation may be where commodity X is being

produced under decreasing opportunity costs and commodity Y under increasing opportunity costs. The former commodity may be any manufactured article like cloth and the latter some agricultural crop like rice. This situation is depicted in Fig. 5 which shows *AB* as the production possibility curve of country A. This curve is concave in the portion *AF* showing increasing opportunity costs and is convex in the region *FB* showing decreasing opportunity costs. The point which divides the curve *AB* into these two segments is called the *point of inflection*.

First, take the region *AF* of the production possibility curve where the international terms of trade line *aa* is tangent to it at point *E* where both the commodities are being produced under increasing opportunity costs. Country A is producing *OX* of commodity X and *OY* of commodity Y. Its consumption point is at *C* whereby it imports *DC* of X and exports *DE* of Y. Since point *C* is outside the production possibility curve, the country is better off by trading with the other country.

Now suppose the production of X starts under decreasing opportunity costs due to internal economies and the production possibility curve becomes convex in the region *FB* of the *AB* curve. Consequently, as more and more commodity X is produced, cost of production diminishes. The country would ultimately reach point *B* where it completely specialises in the production of commodity X. Assuming that the international terms of trade remain the same as before, we draw *bB* parallel to *aa* so that the new consumption point is *B*. The country will now export *NB* of X and import *NR* of Y. The country gains more from trade at point *R* than at point *C*. This is possible so long as the terms of trade line *bB* is to the right of *aa*. If this line happens to be to the left of *aa*, the country would lose and it would be to its advantage not to specialise completely in the production of commodity X but to remain at the consumption point like *C* on the line *aa*. The same reasoning applies to country B.

3. CRITICAL APPRAISAL

Haberler's opportunity costs theory has been regarded as superior to the comparative costs theory of international trade on the following grounds.

ITS SUPERIORITY

First, as an alternative to the classical comparative costs theory, the opportunity costs theory is more realistic because it dispenses with the unrealistic assumptions of the labour theory of value on which the former is based.

Second, The opportunity costs theory analyses pre-trade and post-trade situations under constant, increasing and decreasing opportunity costs whereas the comparative costs theory is based on the constant costs of production within a country and comparative advantage and disadvantage between the two countries.

Third, it highlights the importance of factor substitution in trade theory.

Lastly, it presents a simplified version of the general equilibrium model of international trade. Thus the opportunity costs theory is superior to the comparative costs theory on analytical grounds.

ITS CRITICISMS

Jacob Viner in his *Studies in the Theory of International Trade* (1937) strongly defends the real cost theory of value and vehemently criticises the opportunity costs theory of value which is the basis of Haberler's theory.

1. Inferior as a Tool of Welfare Analysis. Accordingly to Viner, the opportunity costs approach is inferior as a tool of welfare evaluation of the classical real cost approach. He asserts that the doctrine of opportunity costs fails to measure real costs in the form of "sacrifices", "disutilities", or "irksomeness" involved in providing productive services.

2. Ignores Changes in Factor Supplies. Viner also criticises the opportunity costs theory on the ground that the production possibility curve does not take into account changes in factor supplies.

3. Neglects Preference for Leisure against Income. Viner further criticises this theory for the failure of the production possibility curve to take into account the preference for leisure against income. This criticism of Viner has been refuted by Walsh. Walsh argues that “the possibility of trading at an international price ratio normally allows a country to increase its real income. Part of this increase will be taken in the form of more leisure, so that the output of both commodities may decrease.”² He has demonstrated this in terms of production possibility curves on a three-dimensional figure where leisure is taken on the third-dimension. According to Richard Caves, “Walsh’s argument demonstrates that . . . the transformation curve defined for fixed quantities of factor inputs will change in both shape and size when the preference for leisure varies.”³

4. Unrealistic Assumptions. Haberler’s opportunity cost theory is based on such assumptions as two-countries, two-commodities, two-factors, perfect competition, full employment, no technical change, etc. These are unrealistic assumptions which do not hold in the real world.

Conclusion. But all these criticisms are unfounded. The real cost approach has been discarded by economists for good because it leads “into a quagmire of unreality and dubious hypothesis.” Instead, the opportunity costs approach has come to stay in international trade theory in the form of a concave production possibility curve extensively used by Samuelson. It has been regarded as a simplified version of a general equilibrium model by Richard Caves. As pointed out by Samuelson, “The opportunity cost approach is more fertile because it can be readily extended into a general equilibrium system. It is, therefore, not surprising that the opportunity cost approach has gained more and more popularity and it is used even by those who, in principle, attack it.”⁴

EXERCISES

1. Critically discuss the opportunity costs theory of international trade.
2. Discuss how the opportunity costs doctrine of international trade removes the shortcomings of the classical theory of international trade.

[2.](#) V.C. Walsh, "Leisure and International Trade", *Economica*, August 1956.

[3.](#) R. Caves, *Trade and Structure*, 1960.

[4.](#) P.A. Samuelson, *The Collected Scientific Papers*, Vol. II, 1960.



MILL'S THEORY OF RECIPROCAL DEMAND

1. INTRODUCTION

Ricardo expounded the theory of comparative advantage without explaining the ratios at which commodities would exchange for one another. It was J.S. Mill who discussed the latter problem in detail in terms of his theory of reciprocal demand. The term 'reciprocal demand' introduced by Mill to explain the determination of the equilibrium terms of trade. It is used to indicate a country's demand for one commodity in terms of the quantities of the other commodity it is prepared to give up in exchange. It is reciprocal demand that determines the terms of trade which, in turn, determine the relative share of each country. Equilibrium would be established at that ratio of exchange between the two commodities at which quantities demanded by each country of the commodity which it imports from the other, should be exactly sufficient to pay for one another.

To explain his theory of reciprocal demand, Mill first restated the Ricardian theory of comparative costs. "Instead of taking as given the output of each commodity in two countries, with the labour costs different, he assumed a given amount of labour in each country, but differing outputs. Thus his formulation ran in terms of comparative advantage, or comparative effectiveness of labour, as contrasted with Ricardo's comparative labour cost."²

ASSUMPTIONS

Mill's theory of reciprocal demand is based on the following assumptions:

1. There are two countries, say, England and Germany.
2. There are two commodities, say, linen and cloth.
3. Both the commodities are produced under the law of constant returns.
4. There are no transport costs.
5. The needs of the two countries are similar.
6. There is perfect competition.
7. There is full employment.
8. There is free trade between the two countries.
9. The principle of comparative costs is applicable in trade relations between the two countries.

1. Charles P. Kindleberger, *op. cit.*, p. 35.

[2.](#) P.T. Ellsworth and J. Clark Luth, *The International Economy*, 1975.

EXPLANATION OF THE THEORY

Given these assumptions, Mill's theory of reciprocal demand can be explained with the help of Table 1.

TABLE 1. QUANTITIES OF COMMODITIES PRODUCED

<i>Country</i>	<i>Output of</i>	
	<i>Linen</i>	<i>Cloth</i>
Germany	10	10
England	6	8

Suppose Germany can produce 10 units of linen or 10 units of cloth within one man-year and England can produce 6 units of linen or 8 units of cloth with the same input of labour-time. According to Mill, "This supposition then being made, it would be in the interest of England to import linen from Germany, and of Germany to import cloth from England." This is because Germany has an absolute advantage in the production of both linen and cloth, while England has the least comparative disadvantage in the production of cloth. This can be seen from their domestic exchange ratios and international exchange ratios.

Before trade, the domestic cost ratio of linen and cloth in Germany is 1:1; and in England 3:4. If they were to enter into trade, Germany's advantage over England in the production of linen is 5:3 (or 10:6), and in the production of cloth 5:4 (or 10:8). Since $\frac{5}{3}$ is greater than $\frac{5}{4}$, Germany possesses greater comparative advantage in the production of linen. Thus it is in Germany's interest to export linen to England in exchange for cloth. Similarly, England's position in the production of linen is $\frac{3}{5}$ (or 6/10) and in the production of cloth is $\frac{4}{5}$ (or 8/10). Since $\frac{4}{5}$ is greater than $\frac{3}{5}$, it is in the interest of England to export cloth to Germany in exchange for linen. Mill's theory of reciprocal demand relates to the possible terms of trade at which the two commodities will exchange for each other between the two countries. The terms of trade refer to 'the barter terms of trade' between the two countries, *i.e.*, the ratio of the quantity of imports for a given quantity of exports of a country. And "the limits to the possible barter terms of trade (the international exchange ratio) are set by the domestic exchange ratios established by the relative efficiency of labour in each country."

To take an example, in Germany 2 inputs of labour-time produce 10 units of linen and 10 units of cloth, while in England the same labour produces 6 units of linen and 8 units of cloth. The domestic exchange ratio between linen and cloth in Germany is 1:1 and 1:1.33 in England. Thus the limits of possible terms of trade are 1 linen: 1 cloth in Germany and 1 linen : 1.33 cloth in England. Thus the terms

of trade between the two countries will be between 1 linen or 1 cloth or 1.33 cloth.

But the actual ratio will depend upon *reciprocal demand*, i.e. “the strength and elasticity of each country’s demand for the other country’s product.” If Germany’s demand for England’s cloth is *more* intense (inelastic), then the terms of trade will be nearer 1:1. Germany will be prepared to exchange one unit of linen with one unit of cloth of England. The terms of trade will move against it and in favour of England. Consequently, Germany’s gain from trade will be less than that of England. On the other hand, if Germany’s demand for England’s cloth is *less* intense (more elastic), then the terms of trade will be nearer 1:1.33. Germany will be prepared to exchange its one unit of linen with 1.33 units of cloth of England. The terms of trade will move in favour of Germany and against England. Consequently, Germany’s gain from trade will be greater than that of England.

In short, “(1) the possible range of barter terms is given by the respective domestic terms of trade as set by comparative efficiency in each country; (2) within this range, the actual terms of trade depend on each country’s demand for other country’s produce; and (3) finally, only those barter terms of trade will be stable at which the exports offered by the country just suffice to pay for the imports it desires.”³

³. *Ibid*, pp. 51-52.

Mill’s theory of reciprocal demand is explained diagrammatically in terms of Marshall’s *offer curves*.

In Fig. 7.1, England producing only cloth is taken on the horizontal axis and Germany producing only linen is taken on vertical axis. The curve *OE* is England’s offer curve. It shows how many units of cloth England will give up for a given quantity of linen. Similarly, *OG* is the offer curve of Germany which shows how many units of linen Germany is prepared to give up in exchange for a given quantity of

cloth. The point T where the two offer curves OE and OG intersect is the equilibrium point at which OC of cloth is traded by England of OL of linen of Germany. The rate at which cloth is exchanged for linen is equivalent to the slope of the ray OT .

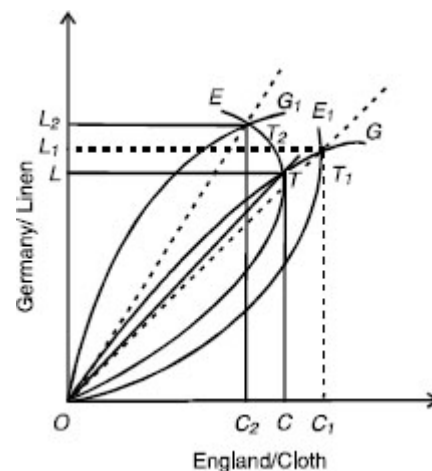


FIG. 1

A change in the demand on the part of one country for the product of the other country brings about a change in the shape of its offer curve. Suppose England's demand for Germany's linen increases. England might now be prepared to exchange more cloth for Germany's linen. Consequently, England's offer curve shifts to the right as OE_1 which intersects Germany's offer curve OG at T_1 . Now England trades OC_1 units of cloth for OL_1 units of linen. The terms of trade, as shown by the slope of the (dotted) ray OT_1 , indicate that they have deteriorated for England and improved for Germany. This is evident from the fact that England trades CC_1 units of cloth for LL_1 units of linen. CC_1 is greater than LL_1 .

Similarly, if Germany's demand for England's cloth increases, Germany's offer curve shifts to the left as OG_1 which intersects England's offer curve OE at T_2 . Now Germany exchanges OL_2 units of linen for OC_2 units of cloth. The terms of trade, as shown by the slope of the (dotted) ray OT_2 , indicate that they have deteriorated for Germany and improved for England. This is clear from the fact that Germany exchanges LL_2 more linen for CC_2 less cloth, *i.e.* $LL_2 > CC_2$.

But the actual terms of trade will depend upon the elasticity of demand of the offer curve of each country. The more elastic the offer curve of a country, the more unfavourable will be terms of trade for it in relation to the other country. On the contrary, the more inelastic is its offer curve, the more favourable will be its terms of trade in relation to the other country.

DISTRIBUTION OF GAINS FROM TRADE

The distribution of gains from trade is explained in terms of Fig. 7.2 where OE and OG are the offer curves of England and Germany respectively. Oe and Og are the constant domestic cost ratios of producing both linen and cloth in the two countries respectively. The actual terms of trade are settled at P , the point of intersection of OE and OG . The ray OT represents the equilibrium terms of trade.

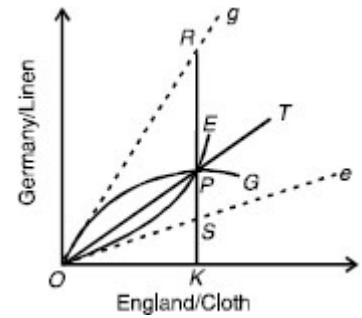


FIG. 2

The cost ratio within England is KS units of linen : OK units of cloth. But it gets KP units of linen through trade. $SP (= KP - KS)$ units of linen is, therefore, its gain. The domestic cost ratio in Germany is KR units of linen: OK units of cloth. But it imports OK units of cloth from England in exchange for only KP units of linen. $PR (= KR - KP)$ units of linen is its gain. The greater will be the gain of a country, the closer are its actual terms of trade to the other country's domestic terms of trade.

ITS CRITICISMS

Mill's theory of Reciprocal Demand is based on almost the same unrealistic assumptions that were adopted by Ricardo in his doctrine of comparative advantage. Thus the theory suffers from similar weaknesses. Besides, there are some additional criticisms made by Viner, Graham, and others.

1. Does not pay Attention to Domestic Demand. Mill's theory of reciprocal demand does take into account the domestic demand for the product. As pointed out by Viner, each country would export its product only after satisfying its home demand. Thus the demand curve for Germany would not be below the line Og until the domestic demand was satisfied, and the same applies to England.

2. Both Countries cannot be of Equal Size. According to Graham, Mill's analysis is valid only if the two countries are of equal size and

the two commodities are of equal consumption value. In the absence of these two assumptions, if one country is small and the other large, the small country gains the most on both counts: *First*, if it produced a high-value commodity, it will adopt the cost ratios of its big partner; and *Second*, the two trading countries being of unequal size, the terms of trade will be fixed at or near the comparative costs of the large country.

3. Two-countries, Two-commodities Assumption is unrealistic.

Mill's theory is based on the unrealistic assumption of two-countries and two-commodities. Graham, therefore, favours several commodities, several countries and complex trade.⁴

4. Neglect of Supply Side. Graham further criticises Mill for emphasising demand and neglecting supply in determining international values. According to him, the application of the reciprocal demand makes it appear that demand alone is of interest. He maintains that production costs (supply) are also of paramount importance in international trade. He thus attacked the Law of Reciprocal Demand "as appropriate only to trade in antiques and old masters."

5. Does not pay Attention to Fluctuations in Income in two Countries. Another weakness of Mill's analysis of reciprocal demand is that it makes no allowance for fluctuations in incomes in the two trading countries which are bound to influence the terms of trade between them.

6. Unrealistic and Arbitrary. Further, the theory is based on barter of trade and relative price ratios. Thus it 'neglects all stickiness of prices and wages, all transitional inflationary and overvaluation gaps, and all balance of payments problems'. No wonder, the theory is abstract and unrealistic. Graham, therefore, regards the theory "in its essence fallacious and should be discarded."

7. Unrealistic Assumptions. Mill's theory is based on such unrealistic assumptions as two countries, two commodities, law of

constant returns, lack of transport costs, full employment, perfect competition, etc. These make the theory unrealistic.

Conclusion. But there is little basis in the criticisms made by Graham which appear to be flimsy. As pointed out by Viner, “The terms of trade can be directly influenced by reciprocal demands and by nothing else. The reciprocal demands, in turn, are ultimately determined by the cost conditions together with the basic utility functions.”⁵ The real fault in Mill’s analysis is that it overemphasises the basic utility functions and neglects the production costs.

EXERCISES

1. Analyse the nature and significance of the principle of reciprocal demand in the theory of comparative costs.
2. Critically discuss Mill’s theory of reciprocal demand in the theory of comparative costs.

⁴. F.D. Graham, “The Theory of International Values,” *Q.J.E.* XLVI, 1932.

⁵. J. Viner, *Studies in the Theory of International Trade*, 1937.



THE MODERN THEORY OF FACTOR ENDOWMENTS : THE HECKSCHER-OHLIN THEORY

1. INTRODUCTION

Bertin Ohlin in his famous book *Inter-regional and International Trade* (1933) criticised the classical theory of international trade and formulated the General Equilibrium or Factor Endowment or Factor Proportions Theory of International Trade. It is also known as the *Modern Theory of International Trade* or the *Heckscher-Ohlin* (H.O.) *Theory*. In fact, it was Eli Heckscher, Ohlin's teacher, who first propounded the idea in 1919 that trade results from differences in factor endowments in different countries, and Ohlin carried it forward to build the modern theory of international trade.

2. THE HECKSCHER-OHLIN THEORY

The H.O. theory states that the main determinant of the pattern of production, specialisation and trade among regions is the relative availability of factor endowments and factor prices. Regions or countries have different factor endowments and factor prices. "Some countries have much capital, others have much labour. The theory now says that countries that are rich in capital will export capital-

intensive goods and countries that have much labour will export labour-intensive goods.”¹ To Ohlin, the immediate cause of international trade always is that some commodities can be bought more cheaply from other regions, whereas in the same region their production is possible at high prices. Thus *the main cause of trade between regions is the difference in prices of commodities based on relative factor endowments and factor prices.*

ITS ASSUMPTIONS

Before analysing the theory in detail, we discuss below its assumptions:

1. It is a *two-by-two-by-two model*, i.e., there are two countries (A and B), two commodities (X and Y), and two factors of production (capital and labour).
2. There is perfect competition in commodity as well as factor markets.
3. There is full employment of resources.
4. There are quantitative differences in factor endowments in different regions, but qualitatively they are homogeneous.
5. The production functions of the two commodities have different factor intensities, i.e., labourintensive and capital-intensive.
6. The production functions are different for different commodities, but are the same for each commodity in both countries. It means that the production function of commodity X is different from commodity Y. But the technique used to produce commodity X in both countries is the same, and the technique used to produce commodity Y in both countries is the same.
7. Factor intensities are non-reversible.

8. There is perfect mobility of factors within each region but internationally they are immobile.
9. There are no transport costs.
10. There is free and unrestricted trade between the two countries.
11. There are constant returns to scale in the production of each commodity in each region.
12. Tastes and preferences of consumers and their demand patterns are identical in both countries.
13. There is no change in technological knowledge.
14. There is incomplete specialisation. Neither country specialises in the production of one commodity.

[1.](#) Bo Sodersten, *International Economics*, 1970, p. 64.

ITS EXPLANATION

Given these assumptions, Heckscher and Ohlin contend that the immediate cause of international trade is the difference in relative commodity prices caused by differences in relative demand and supply of factors (factors prices) as a result of differences in factor endowments between the two countries. Fundamentally, the relative scarcity of factors—the shortage of supply in relation to demand—is essential for trade between two regions. Commodities which use large quantities of scarce factors are imported because their prices are high while those using abundant factors are exported because their prices are low.

The H.O. theorem is explained in terms of two definitions: (1) factor abundance (or scarcity) in terms of the price criterion; and (2) factor abundance (or scarcity) in terms of physical criterion. We discuss these one by one below:

(1) Factor Abundance in Terms of Factor Prices.

Heckscher-Ohlin explain richness in factor endowment in terms of factor prices. According to their definition, country A is abundant in capital if $(P_C/P_L)_A < (P_C/P_L)_B$, where P_C and P_L refer to prices of capital and labour, and the subscripts A and B denote the two countries. In other words, if capital is

relatively cheap in country A, the country is abundant in capital, and if labour is relatively cheap in country B, the country is abundant in labour. Thus country A will produce and export the capital-intensive good and import the labour-intensive good and country B will produce and export the labour-intensive good and import the capital-intensive good. This is illustrated in Figure 1.

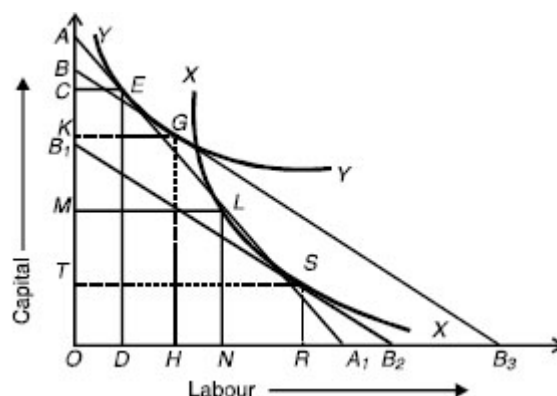


FIG.1

Let X be the labour-intensive commodity taken on the horizontal axis and Y be the capital-intensive commodity taken on the vertical axis. XX is the isoquant of commodity X and YY that of commodity Y. They are the same for both the countries A and B. The relative factor prices in country A for both the commodities are given by the factor price line AA_1 . Assuming that each isoquant represents one unit of the respective commodity, then 1 unit of Y will be produced with OC amount of capital and OD amount of labour at point E where the isocost line AA_1 is tangent to the isoquant YY. By the same reasoning, we find that the cost of producing one unit of commodity X in country A is OM amount of capital and ON amount of labour. Since capital is abundant and cheap in country A, it will specialise in the production of the capital-intensive commodity Y. This is clear from Fig. 1 where in order to produce 1 unit of Y it uses more amount of capital OC with OD of labour at point E on the isoquant YY. While at point L on the isoquant XX, it uses less amount of capital OM with more of labour ON in order to produce 1 unit of X. Hence country A will produce and export the relatively capital abundant and cheap commodity Y to the other country B.

In order to find the cost of producing one unit of each commodity in country *B* where labour is relatively cheap and abundant, draw a flatter factor price line BB_3 tangent to the isoquant YY at point G . A similar factor price line B_1B_2 is drawn parallel to BB_3 which is tangent to the isoquant XX at point S . Now it requires OK amount of capital and OH amount of labour to produce one unit of commodity Y in country *B*, and OT amount of capital and OR amount of labour to produce one unit of commodity X in this country. Since labour is cheap and abundant in country *B*, it will specialise in the production of labour-intensive commodity X . So it will produce commodity X at point S on the isoquant XX , which requires more amount of labour OR with less amount of capital OT than commodity Y which requires less amount of labour OH with more amount of capital OK at point G on the isoquant YY . Hence country *B* will export commodity X to country *A* in exchange for commodity Y .

This establishes the H.O. theorem that the capital abundant country will export the relatively cheap capital-intensive commodity, and the labour abundant country will export the relatively cheap labour-intensive commodity.

(2) Factor Abundance in Physical Terms.

Another way to explain the H.O. theorem is in physical terms of factor abundance. According to this criterion, *a country is relatively capital abundant if it is endowed with a higher proportion of capital and labour than the other country*. If country *A* is relatively capital-abundant and country *B* is relatively labour-abundant, then measured in physical amounts $C_A/L_A > C_B/L_B$, where C_A

and L_A are the total amounts of capital and labour respectively in country *A*, and C_B and L_B are the total amounts of capital and labour respectively in country *B*. This is explained in Figure 2, where the production possibility curve of country *A* is AA_1 and that of country *B* is BB_1 . The slopes of these two curves show that commodity Y is

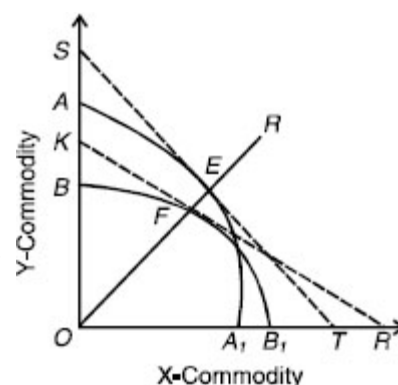


FIG. 2

capital intensive and commodity X is labour intensive. If countries A and B produce both commodities in the same proportion, they will produce along the ray OR . When both produce at their respective points, country A will produce at point E where the factor-price line ST touches the production productivity curve AA_1 . It will produce more of commodity Y (that is OS) which is cheaper in it and less (OT) of commodity X which is dearer in it. Country B will produce at point F where the factor-price line KR touches the production possibility curve BB_1 . It will produce more (OR) of commodity X which is cheaper in it and less (OK) of commodity Y which is dearer in it. This is proved by the slope of the factor-price line ST of country A which is steeper than the factor-price line KR of country B which is flatter:

Slope of $KR >$ Slope of ST

or
$$\left(\frac{P_x}{P_y} \right)_A > \left(\frac{P_x}{P_y} \right)_B$$

The difference between both factor-price lines TR on X -axis indicates that OR of commodity X is produced more in country B relatively to OT quantity of X in country A . Similarly, the difference between both factor price lines KS on Y -axis shows that OS of commodity Y is produced more in country A relatively to OK quantity of Y in country B . Thus the capital-abundant country A has a bias in favour of capital-intensive commodity Y from the production side, and the labourabundant country B has a bias in favour of producing the labour-intensive commodity X .

But the above analysis of physical terms does not show that the capital-abundant country will export the capital-intensive commodity Y and the labour-abundant country will export the labour-intensive commodity X .

The H.O. theorem in terms of physical criterion will be *valid only if tastes (demand or consumption preferences) for each commodity in the two countries are identical*. This is shown in Fig. 8.3 where it is

the factor-price line which is tangent to country A's production possibility curve at point S. It shows that A specialises in the production of capital-intensive commodity Y and produces more of it than commodity X. This line tt is also tangent to country B's production possibility curve BB_1 at point R. It shows that B produces more of labour-intensive commodity X than commodity Y.

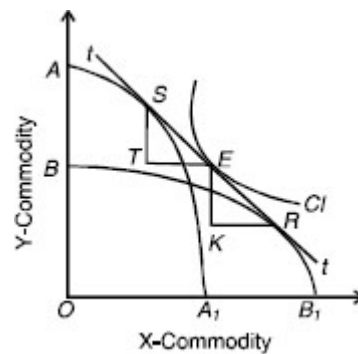


FIG. 3

Both countries specialise and gain from trade for two reasons: First, their factor-price rates are equal: $(P_x/P_y)_A = (P_x/P_y)_B$, as shown by the common factor-price line tt . Second, tastes for the two commodities are identical in both countries, as shown by the community indifference curve Cl . This curve touches the line tt at point E. The trade pattern between the two countries is shown by the triangles STE and EKR . Country A exports TS quantity of Y and imports TE quantity of X. Country B exports KR quantity of X and imports KE quantity of Y.

If tastes differ in the two countries and the capital-abundant country A consumes more of the capital-intensive commodity Y and the labour-abundant country consumes more of the labour-intensive commodity X, the H.O. theorem in terms of physical criterion will be invalid. This is illustrated in Fig. 4 where the demand in country A is represented by the community indifference curve Cl_a and in country B by Cl_b . The curve Cl_a is tangent to

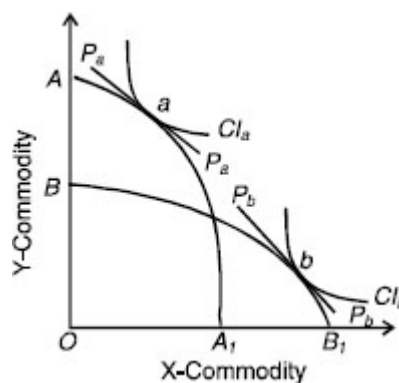


FIG. 4

the production possibility curve AA_1 of country A at point a which shows that demand in country A is mainly concentrated in capital-intensive commodity Y. Similarly, the point b of tangency between the Cl_b curve and the BB_1 curve shows that demand in country B is mainly concentrated in labour-intensive commodity X. Before trade commodity Y is relatively more expensive in country A than in country B. This is shown by the relatively flatter price line $PaPa$ in

country A as against the relatively steeper line P_x/P_y in country B when trade begins:

$$(P_x/P_y)_A > (P_x/P_y)_B.$$

When trade begins between the two countries, the capital abundant country A will export the *relatively cheap* labour-intensive commodity X , and the labour-abundant country B will export the relatively cheap capital-intensive commodity Y . Thus it leads to the conclusion that the capital-intensive country will export the labour-intensive commodity, and the labour-intensive country the capital-intensive commodity.¹

¹ The above two paras with Figures 3 and 4 are meant for M.A. students. Others may leave them.

ITS SUPERIORITY OVER THE CLASSICAL THEORY

The H.O. theorem is an improvement over the classical theory of international trade in many aspects.

1. International Trade a Special Case. The H.O. theory is superior to the classical theory in that it regards international trade as a special case of inter-regional or inter local trade as distinct from the classical theory which considers international trade totally different from domestic trade.

2. General Equilibrium Theory. The H.O. analysis is cast within the framework of the realistic general equilibrium theory of value. It frees the classical theory from the defunct and unrealistic labour theory of value.

3. Two Factors of Production: The H.O. model takes two factors—labour and capital—as against the one factor (labour) of the classical model, and is thus superior to the latter.

4. Differences in Factor Supplies. The H.O. theory is superior to the Ricardian theory in that it regards differences in factor supplies as basic for determining the pattern of international trade while the Ricardian theory takes no notice of it.

5. Relative Prices of Factors. The H.O. model is realistic because it is based on the relative prices of *factors* which, in turn, influence the relative prices of goods, while the Ricardian theory considers the relative prices of *goods* only.

6. Relative Productivities of Factors. The H.O. theory considers differences in relative productivities of labour and capital as the basis of international trade, while the classical theory takes the productivity of labour alone. Hence the former is more realistic than the latter.

7. Differences in Factor Endowments. The H.O. model is based on differences in factor endowments in different countries as against the quality of one factor labour in the classical theory. Thus the former is superior because it lays emphasis not only on the quality but also on the quantity of factors in determining international values.

8. Causes of Differences in Comparative Costs. According to Samuelson, the Ricardian theory could not explain the causes of differences in comparative advantage. The merit of H.O. theory lies in explaining the same satisfactorily.

9. Positive Theory. The classical theory demonstrates the *gains* from trade between the two countries. This is related to the *welfare* theory. On the other hand, the H.O. model is scientific and concentrates on the *basis* of trade. It, thus, partakes of the *positive* theory.

10. Location Theory. According to Haberler², the H.O. theory is a location theory which highlights the importance of the space factor in international trade while the classical theory regards the different countries as spaceless markets. Thus the former theory is superior to the latter.

11. Production Functions of Two Countries. The H.O. theorem is explicitly based on the assumption of production functions of the two countries. On the other hand, the classical theory is based on differences in the production of the trading countries.

12. Complete Specialisation. The H.O. model is more realistic than the classical theory in that the former leads to complete specialisation in the production of one commodity by one country and of the other commodity by the second country when they enter into trade with each other. By contrast, the trade between two countries may or may not lead to complete specialisation in the classical theory.

13. Future of Trade. According to Lancaster, the H.O. theory is superior to the classical theory because it refers to the future of trade. In the classical theory, differences in comparative costs between two countries are due to differences in the efficiency of labour. If, in future, labour becomes equally efficient in both the countries, there will be no trade between them. But in the H.O. theory trade will not cease even if labour becomes equally efficient in the two countries because the basis of trade is differences in factor endowments and prices.

[2.](#) G. Haberler, A Survey of International Trade Theory, 1961, p.

Conclusion. It is clear from the above discussion that the H.O. theorem is superior to the classical theory. The H.O. theory absorbs Ricardo's theory of Comparative Costs and Mill's Concept of Reciprocal Demand. But it does not invalidate the Theory of Comparative Costs. Rather, it supplements it because it also accepts comparative advantage as the cause of international trade. At the same time, it improves upon it when it links the pattern of trade with the economic structure of trading countries. In this way, it analyses the effects of a change in trade on the domestic economic structures and on the domestic income distribution.

ITS CRITICISMS

Ohlin's theory has been criticised on the following grounds:

1. Two-by-two-by-two Model. Ohlin has been criticised for presenting two-by-two-by-two model based on oversimplified assumptions. But, as Ohlin himself points out, it can be extended to many regions, many commodities and many factors. He demonstrated it in the mathematical appendix to his book.

2. Static Theory. Like the classical theory, the Ohlin model is static in nature. "It only gives some characteristics of an economy at a given point in time. For instance, it can give information about how to rank goods at any given moments, but it cannot give any indication about how the economy would develop if production conditions were to change."

3. Factors not Homogeneous. The theory assumes the existence of the homogeneous factors in the two countries which can be measured for calculating factor endowment ratios. But, in reality, no two factors are homogenous qualitatively between countries, and even one factor is of various types. For instance, labour both skilled and unskilled, is of various types. Similarly, capital goods take many forms and also perform the tasks of labour when they are labour saving.

4. Production Techniques not Homogeneous. Again, the Ohlin model assumes homogeneous production techniques for each commodity in the two countries. But production techniques are different for the same commodity in the two countries. For instance, textiles may be produced with handlooms which require more labour and less capital or with highly sophisticated powerlooms requiring a small number of workers. In such a situation, trade may not follow the Ohlin pattern.

5. Tastes and Demand Patterns not Identical. The H.O. theory is based on the assumption of identical tastes and demand patterns of consumption in both countries. This assumption implies that the tastes and demand patterns of consumers are the same for different income groups. This is unrealistic. Moreover, with inventions taking

place in consumers' goods, changes in tastes and demand patterns of consumers also occur even among developed countries. Commodities which consumers demand in the United States are different from what consumers demand in Germany. Consequently, tastes are not identical in trading countries.

6. No Constant Returns. The assumption that there are constant returns to scale is also not realistic because a country having rich factor endowments often obtains the advantages of economies of scale through lesser production and exports. Thus there are increasing returns to scale rather than constant.

7. Transport Costs influence Trade. This theory does not consider transport costs in trade between two countries. This is an unrealistic assumption. Along with transport costs, loading and unloading of goods and other port charges affect the prices of produced commodities in the two countries. When transport costs are included, they lead to price differentials for the same commodity in the two countries which affect their trade relations.

8. Unrealistic Assumptions of Full Employment and Perfect Competition. The H.O. theory is based on the unrealistic assumptions of full employment and perfect competition because there is neither full employment nor perfect competition in any country of the world. Rather, countries do not have free trade but impose trade restrictions on a large scale.

9. Leontief Paradox has Falsified the Theory. Ohlin assumes that relative factor prices reflect exactly relative factor endowments. It implies that in the determination of factor prices, supply is more important than demand. If, however, the demand factors are given more importance in determining factor prices, a capital-rich country will export a labour-intensive commodity because the high demand for capital will raise the price of capital relative of labour. Prof. Leontief's³ empirical study of the Ohlin theorem, known as the Leontief Paradox, has led to paradoxical results that the United States exports labour-intensive goods and imports capital-intensive goods, even though it is a capital-rich country.

10. Partial Equilibrium Analysis. Prof. Haberler criticises Ohlin for his failure to develop a comprehensive general equilibrium concept. He regards Ohlin's theory as, by and large, a partial equilibrium analysis.⁴

11. Factor Prices do not determine Commodity Prices. Wijnholds has criticised Ohlin for his view that commodity prices are determined by the factor prices which in turn, determine costs. He holds that the prices of commodities are determined by their utility to the consumers, and that the prices of raw materials and labour are ultimately dependent on the prices of the final commodities. He maintains that the right approach is to start with commodity prices rather than factor prices.⁵

12. Vague and Conditional Theory. Ohlin's theory has been characterised as "somewhat vague and conditional." As pointed out by Haberler, "With many factors of production, some of which are qualitatively incommensurable as between different countries, and with dissimilar production functions in different countries, no sweeping a priori generalisation concerning the composition of trade are possible."

Conclusion. Despite these criticisms, the Ohlin theory of international trade is definitely an improvement over the classical theory as it attempts to explain the basis of international trade in the general equilibrium setting. According to Lancaster, the H.O. model "occupies the very centre of international trade theory for reasons unconnected with its realism, and indeed strengthened by the very properties which have been subject to so much criticism."⁶

EXERCISES

1. Discuss critically the Modern Theory of International Trade.
2. Discuss the Heckscher-Ohlin Theory of International Trade. To what extent it is superior to the classical theory of international values?

3. Critically examine the view that international trade results from differences in factor endowments in countries.
4. State and explain the Heckscher-Ohlin theory of international trade and the conditions underlying it.

[3.](#) W.W. Leontief, "Factor Properties and the Structure of American Trade: Further Theoretical and Empirical Analysis." *R.S.E.*, Vol. 38, November, 1956.

[4.](#) G. Haberler, *op. cit.*

[5.](#) H.W.J. Wijanholds, "The Theory of International Trade: A New Approach," *South African Journal of Economics*, September 1953.

[6.](#) K. Lancaster, "The Heckscher-Ohlin Trade Model: A Geometrical Approach", *Economica*, p. 24. 1957.



INTERNATIONAL TRADE AND FACTOR PRICES

1. INTRODUCTION

The Heckscher-Ohlin theory states that before trade relative prices differ between two countries. When trade is introduced, assuming no transport costs, relative commodity prices are equalised. But will the prices of the factors of production engaged in the production of the two commodities in the two countries be equalised in the absence of actual movements of factors ? This problem of factor-price equalisation has led to much controversy among economists.

Heckscher¹ himself suggested that under the assumption of the same technique in the two countries, trade would lead to factor equalisation without the actual movements of factors. But he believed that production techniques are not likely to be similar in the two countries in actuality. Therefore, complete factor-price equalisation would not occur. Ohlin², on the other hand, believed that trade would lead to partial factor-price equalisation. According to him, complete factor price equalisation could be attained only when factors of production moved freely between the two countries.

2. SAMUELSON 'S FACTOR-PRICE EQUALISATION THEOREM

It was samuelson who in his two articles³ in the Economic Journal showed that free commodity trade will, under certain specified

conditions, inevitably lead to complete factor price equalisation.

Assumptions

The Samuelson theorem is based on the following hypotheses or assumptions:

1. There are only two countries, say, A (America) and B (Britain).
2. They produce and trade two commodities, say food and clothing.

[1.](#) Eli Heckscher, "The Effect of Foreign Trade and Distribution of Income," in *Readings in the Theory of International Trade*, 1950.

[2.](#) B. Ohlin, *Inter-Regional and International Trade*, 1933.

[3.](#) P.A. Samuelson, "International Trade and the Equalisation of Factor Prices," *E.J.*, June 1948. "International Factor Price Equalisation Once Again," *E.J.*, June 1949.

3. There are two factors of production, land and labour, to produce these commodities.

4. The production function of each commodity is homogeneous of degree one. In other words, there are constant returns to scale.

5. The factors of production are subject to the law of diminishing marginal productivity.

6. Factor intensities are different for each commodity. Food is relatively land-intensive and clothing is relatively labour-intensive. There are no factor intensity reversals.

7. The technical production function for each commodity is the same in the two countries.

8. Land and labour inputs are assumed to be qualitatively identical in the two countries.

9. Country A is land (or capital) abundant and country B is labour abundant.
10. There is perfect competition.
11. There is the absence of tariffs.
12. There are no transport costs.
13. Factors of production do not move between the two countries.
14. Each factor is fully employed in each country.
15. The quantities of factors used in production are assumed to be constant.
16. Tastes are identical in the two Countries.
17. Both countries produce both commodities with both factors of production. In other words, no country specialises completely in one commodity.

Explanation

Given these assumptions, real factor prices must be exactly the same in both countries and indeed the proportion of inputs used in food production in America must equal that in Britain, and similarly for clothing production. Samuelson gives the following “intuitive proof” of the theorem. Assuming perfect competition, the ratio of the price of food to clothing in each country will be equal to the ratio in each country of the marginal cost of producing food to the marginal cost of manufacturing clothing. Moreover, there will be one price for food and one price for clothing in the two countries, because it is assumed that trade is free and unrestricted and there are no transport costs.

As prices reflect marginal costs, if prices are equal in the two countries, marginal costs must also be equal. Thus the marginal cost of producing food and clothing is the same in America and Britain.

To test Samuelson's intuitive proof, let us suppose that the wage rate is lower in Britain than in America. Since costs are exclusively determined by factor prices, the cost of labour-intensive clothing in Britain would be lower. It will increase the demand for clothing in America. As the production of clothing expands, it raises wages relative to the rent of land. An increase in the ratio of wages to rent must in a competitive market push up the price of labour-intensive clothing relatively to land-intensive food in Britain. Similarly, the import of land-intensive food from America will reduce the scarcity and the ratio of wages to rent of the food industry in Britain. The same reasoning applies to the production of food and clothing in America. We may conclude with Samuelson that under perfect competition "the same commodity price ratio must—even in countries of quite different total factor endowments—lead back to a common unique factor-price ratio, a common unique way of combining the inputs in the food and clothing industries, and a common set of absolute factor prices and marginal productivities."

[illegible]

FIG. 1

factor-price ratio for the two commodities in America and Britain is represented by the line PL , it is tangent to the isoquant FF at R and to the isoquant CC at S . Suppose that the pre-trade relative factor-prices of food and clothing in America are indicated by the slope of the dotted line $P_A L_A$. This line is tangent to the isoquant FF at point K . It forms the endowment ray OK . If the endowment ray lies outside the cone ROS , as it does in our diagram, America will be completely specialised in the production of land-intensive food. But factor-prices will not be equalised. Here the land/labour ratio of producing a unit of food is high and the cost of production is also high. This is because the marginal productivity (MP_F) of land in value terms is lower than its rent, and the marginal productivity of labour in value terms is higher than its wage. Thus America's domestic factor-price ratios are inconsistent with the after-trade factor-price ratios of food and clothing. Therefore, it is only by using relatively more labour and less land at point R , on the international price line PL than at K on the line $P_A L_A$ that the marginal productivity of land equals its rent.

Now suppose the domestic factor price ratios of the two commodities in Britain are represented by the slope of the dotted line $P_B L_B$ which is tangent to the isoquant CC at T . It forms the endowment ray OT . Since this endowment ray also lies outside the cone ROS in the figure, Britain will be completely specialised in the production of labour-intensive clothing. But factor prices will not be equalised. In other words, clothing being labour-intensive, the marginal productivity (MP_C) of labour in value terms is lower than its wage and the marginal productivity of land (MP_F) is higher than its rent. Thus the domestic price ratios of producing clothing and food in Britain are inconsistent with the after-trade factor price ratios of the two commodities. Therefore, by employing relatively less labour and more land at point S on the international price line PL than at T on the line $P_B L_B$ that the marginal productivity of labour equals its wage.

Thus by using OR land/labour ratio in the production of food and OS land/labour ratio in the production of clothing, the factor prices are equalised in America and Britain at the international price ratio

given by the slope of the PL line in the figure. At points R and S , the land/labour ratio equals the slopes of the lines OR and OS . The marginal products of land and labour for clothing associated with equilibrium point S are $1/OP$ and $1/OL$. Similarly for food. The price of clothing at point $S = \text{Wage} \times OL = \text{Rent} \times OP$. The same is the price for food at point $R = \text{Wage} \times OL = \text{Rent} \times OP$. Hence factor prices of both commodities are equalised.

We can also prove this theorem numerically as under:

The slope of the isoquant FF at point

$$R = \frac{MP_F \text{ of Land}}{MP_F \text{ of Labour}} \quad \dots(1)$$

The slope of the price line PL at point

$$R = \frac{P_F \text{ of Land (Rent)}}{P_F \text{ of Labour (Wage)}} \quad \dots(2)$$

1. This is the simplest diagrammatic explanation. For Box and other diagrammatic explanations, interested readers may refer to Appendix-C of Kindleberger's International Economics

From (1) and (2), we have

$$\frac{MP_F \text{ of Land}}{MP_F \text{ of Labour}} = \frac{P_F \text{ of Land (Rent)}}{P_F \text{ of Labour (Wage)}} \quad \dots(3)$$

Similarly, we can arrive at the equality of factor-price ratio of clothing at point S where the international price line PL is tangent to the isoquant CC .

$$\frac{MP_C \text{ of Land}}{MP_C \text{ of Labour}} = \frac{P_C \text{ of Land (Rent)}}{P_C \text{ of Labour (Wage)}} \quad \dots(4)$$

Thus from (3) and (4), we have

$$\frac{MP_F \text{ of Land}}{MP_F \text{ of Labour}} = \frac{MP_C \text{ of Land}}{MP_C \text{ of Labour}}$$

$$\frac{MP_F \text{ of Land}}{MP_F \text{ of Labour}} = \frac{MP_C \text{ of Land}}{MP_C \text{ of Labour}}$$

and also

$$\frac{P_F \text{ of Land (Rent)}}{P_F \text{ of Labour (Wage)}} = \frac{P_C \text{ of Land (Rent)}}{P_C \text{ of Labour (Wage)}}$$

Since the isoquants *FF* and *CC* refer to both America and Britain, the factor prices will be the same in both countries absolutely as well as relatively.

Its Criticisms

Samuelson's factor price equalisation theorem has been severely criticised by Meade, Ellsworth, and other economists on the basis of its highly restrictive assumptions. They argue that factor-price equalisation can be *partial* and *not complete* for the following reasons:

1. Both Factors not Available. It is assumed that the two factors of production are available in both countries. But it is possible that only one factor is available in one country. Consequently, the marginal productivities of the factor common to both countries will differ and its prices cannot be equalised in the two countries.

2. Production Function not Same. The theorem also assumes that production functions are the same in the two countries. As a matter of fact, production functions are never identical. Even if resources are the same in both countries, they would not necessarily produce the same commodity in them. As pointed out by Meade, "The same text-books and the same brains would not produce the same thoughts in Chicago and London." This is because physical climate and social and intellectual atmosphere for the production of commodities differ from country to country.

3. Transport Costs enter into Trade. The assumption of absence of transport costs is unrealistic. It always costs something to send commodities from one country to the other. So the price of food will be higher in Britain than in America, and the price of clothing will be higher in America than in Britain. As a result, the marginal product of labour and hence the wage rate will be lower in Britain than in America. On similar reasoning, the marginal product of land and the

rent will be lower in America than in Britain. Thus factor price equalisation becomes a remote possibility.

4. Factor-Price Equalisation not Possible under Constant Costs. The Samuelson theorem is based on the assumption of constant returns to scale. Meade has demonstrated that if there are economies of production in the manufacture of the commodities, factor price equalisation will not take place. Suppose Britain enjoys more economies of large scale production in the manufacture of clothing than America. Therefore, the marginal productivity of labour would be higher in Britain and lower in America. It is possible for commodity prices to be the same in the two countries, but factor prices would differ in them.

If, however, there are increasing returns, the theorem again breaks down. This is because increasing returns and perfect competition are incompatible. Moreover, under increasing returns each factor would be paid less than its marginal productivity and the total product would be more than exhausted.

5. Specialisation in One Commodity Possible. It is further assumed that no country specialises completely in the production of a single commodity. But there is every likelihood of one of the countries to completely specialise in the production of one commodity before factor-price equalisation occurs. This is especially so if the other industry, say wheat in Britain, happens to be very small in relation to the specialised industry, clothing. In this situation, factor price equalisation will not take place till all factors engaged in the wheat production move to the other country, America.

6. Not Applicable to More than Two Goods and Factors. The factor-price equalisation theorem is based on the two-commodity and two-factor assumptions. If the number of factors of production is more than the number of commodities, the theorem would break down. "This translates into the requirement that no country should produce less goods than the total number of factors of production." It is difficult to extend the theorem to more than two factors and two goods.

7. Static Theory. The Samuelson theorem is, in reality, a completely static theory. “It only studies some characteristics of a given equilibrium situation at a given point in time. It says only what the effects of trade will be with a given technique, with given factor endowments, and so on. But the real world is not in a given equilibrium forever; all sorts of changes occur.”

8. Inequalities in Factor Incomes. Myrdal, Kindleberger, Sodersten, and others opine that in the real world there are increasing inequalities in factor incomes rather than equalities in them. According to Myrdal, a cumulative process away from equilibrium in factor proportions and factor prices engendered by technological trade has been taking place. Kindleberger is more emphatic when he writes that “trade between developed and less developed countries widens the gap in living standards (and factor prices such as wages) rather than narrows it, and it is evident after centuries of trade that there are still poor as well as rich countries.”

9. Non-existence of Perfect Competition. The Samuelson theorem is based on the unrealistic assumption of perfect competition in international trade without any tariff and non-tariff barriers. In reality, trade barriers do exist which make complete equalisation of factor prices impossible.

10. Factor Intensity Reversal. The Samuelson theorem is based on the assumption that the production functions differ in factor intensities. It implies that the production functions have constant substitution elasticities so that each production function can be identified as being relatively land (or capital)intensive or labour-intensive at all relevant points on the two production functions. But it is possible that the two production functions do not have the same elasticities of substitution. One point on the production function may be relatively land (or capital)-intensive and another point on the same production function may be relatively labour-intensive. This is the case of factor intensity reversals where a one-to-one correspondence between factor prices and factor intensities is not possible.

Conclusion. Sir Roy Harrod looks upon the Samuelson theorem as a *curiosum*, and not as a fundamental principle. Kindleberger admits that the theorem is not generally true because its “whole set of assumptions contain many crucial departures from reality.” But he regards it as more than an intellectual curiosity and it “remains an important exercise in the use of rigorous models of trade.” We may conclude with Jagdish Bhagwati, “Although the subject is, therefore, both of historic interest and still continues to attract fresh minds, one cannot help feeling that perhaps too great a proportion of the intellectual energy of trade theorists has been directed towards a question of limited utility.”

EXERCISES

1. Explain the assumptions as well as conditions that are required to be satisfied if free movement of goods in international trade is to lead to complete equalisation of factor prices in the trading countries.
2. Discuss to what extent free movement of goods can bring about equalisation of international factor prices.
3. State and explain the conditions under which Ohlin's factor price equalisation theorem is valid.
4. Discuss to what extent free movement of goods can bring about equalisation of international factor prices.



FACTOR INTENSITY REVERSALS : STOPLER-SAMUELSON & RYBCZYNSKI THEOREMS

1. MEANING OF FACTOR INTENSITY REVERSAL

The H.O. theorem assumes that production functions are different for two different commodities which are traded, but are the same for each commodity in the two countries. It means that the production function of commodity X is different from commodity Y . But the technique used to produce X in both the countries (A and B) is the same. So is the technique used to produce Y is the same in both A and B countries. If country A is capital-abundant and Y is a capital-intensive good, A will export Y commodity. Similarly, B being a labour abundant country will export its labour-intensive good X . According to factor intensity reversal the same good Y will be capitalintensive in country A and labour-intensive in B . In such a situation, according to H.O. theorem, both A and B countries would export the same commodity Y to each other. Since this is not possible, the H.O. theorem breaks down in the presence of factor intensity reversal because it fails to explain the pattern of trade between the two countries.

Factor intensity reversals may exist if one isoquant 'sits on the other' or if one isoquant intersects the other at multiple points. The former is known as single factor intensity reversal and the latter as multiple factor intensity reversal.

SINGLE FACTOR INTENSITY REVERSAL

A single factor intensity reversal is illustrated in Fig. 1 where the isoquant FF sits on the isoquant CC at point R . It is only at R that a tangent representing the common price line representing equal international price ratios can be drawn. The ray shows the proportion in which the two factors are combined in different intensities for both commodities at one factor price ratio. Lerner calls the ray OR a “radiant of tangency” which is the sign of factor intensity reversal.

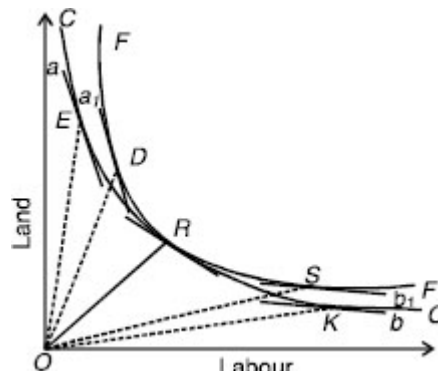


FIG. 1

Points of equilibrium to its left or right on the two isoquants will reveal that the production functions have shifted in factor intensity. We know from the factor price equalisation theorem that food is relatively land-intensive in America and clothing is relatively labour-intensive in Britain. Now Fig. 1 reveals that the factor proportions represented by the rays OE and OD to the left of the ray OR show different factor intensities. The ray OE , as compared with ray OD , shows that the production of clothing is land-intensive in America relative to the production of food. The factor price ratio for both the commodities in America is the same as represented by the parallel tangents, $a = a_1$ at points E and D on the isoquants CC and FF respectively.

On the other side, rays OK and OS to the right of the ray OR show that clothing is labourintensive relative to food production in Britain, given parallel factor price lines $b = b_1$

Thus the above analysis shows that clothing is relatively land-intensive in America and relatively labour-intensive in Britain. America now produces clothing instead of food by substituting land for labour in producing cloth which is a labour intensive commodity. There has been a factor intensity reversal. Factor prices for the production of cloth in the two countries also differ as shown by the slopes of the price lines a and b . It is not possible to tell from factor intensities which country will export which commodity. In fact, both

countries will try to produce and export clothing and import food. Thus the factor-price equalisation theorem breaks down.

MULTIPLE FACTOR INTENSITY REVERSALS

When two isoquants intersect each other at multiple points, there are multiple factor intensity reversals. This is explained in Fig. 2, where the two isoquants CC and FF intersect twice at M and N . In between these two points of inter-section, the two isoquants are cut by a ray OR from the origin at T and S . It is only at these points that parallel tangents representing equal international factor price ratios can be

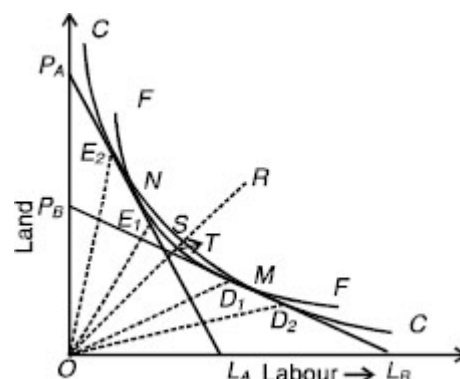


FIG. 2

drawn thereby showing factor price equalisation*. Points of equilibrium between the isoquants and the factor price lines to the left or right of ray OR will show factor intensity reversals. The two rays OE_1 and OE_2 on the factor price line $P_A L_A$ represent land/labour ratios in the production of food and clothing in America. Rays OD_1 and OD_2 show similar ratios on the factor price line $P_B L_B$ in Britain. The figure reveals that clothing is land-intensive in America (point E_2) but labour-intensive in Britain (point D_2), while food is labour-intensive in America (point E_1) but land-intensive in Britain (point D_1). Thus the land-intensive commodity food is labour-intensive in the land-abundant country America, while it is land intensive in the labour-abundant country Britain. This shows factor intensity reversals. Factor prices differ in the two countries as points E_1 and D_1 of the isoquant FF lie on two different factor price lines $P_A L_A$ and $P_B L_B$. Both will try to export food and import clothing by substituting their factors. Thus the factor-price equalisation theorem breaks down.

* They have not be drawn here to avoid confusion.

2. THE STOPLER -SAMUELSON THEOREM : THE EFFECT OF CHANGE IN COMMODITY PRICES ON REAL FACTOR REWARDS

The Stopler-Samuelson theorem examines the implications of a change in commodity prices for the real rewards of factors. The factor-price equalisation theory relates movements in commodity prices to the ratio of factor rewards. But the Stopler-Samuelson theorem relates movements in commodity prices to individual rewards. It states that in a two-factor two-commodity economy a rise in the price of a commodity increases the real reward of the abundant factor used in the production of the commodity of which the price has risen, and decreases the real reward of the scarce factor, and vice-versa.

ASSUMPTIONS

The Stopler-Samuelson theorem is based on the following assumptions:

1. There are two countries which trade with each other but the analysis is geometrically confined to one country.
2. This country produces only two commodities, wheat (w) and watches (w').
3. Neither commodity is an input into the production of another.
4. These two commodities are produced with only two factors, labour and capital.
5. Production functions of both commodities are linear and homogenous of degree one.
6. Both factors are fixed in supply.
7. Both factors are fully employed.

8. Both factors are mobile between sectors but not between countries.
9. There is perfect competition in the factor and product markets.
10. The production of watches is relatively capital-intensive and that of wheat is relatively labour-intensive.
11. Labour is an abundant factor of production and capital is a scarce factor.
12. The terms of trade between the two countries remain unchanged.
13. Opening of trade raises the relative price of wheat.

EXPLANATION

Given these assumptions, moving from no trade to free trade unambiguously raises the returns to the factors used intensively in the rising-price industry (wheat) and lowers the returns to the factors used intensively in the falling price industry (watches). The Stolper-Samuelson theorem is explained in the box diagram Fig. 10.3 where the origin of labour-intensive wheat production is O and that of capital-intensive watch production is O_1 so that OO_1 is the contract curve, a_1a_1 is the isoquant of wheat and b_1b_1 that of watches. They are tangent at point M which is the production situation before trade. The factor price ratio is represented by the slope of the tangent p_1p_1 at M . When trade starts, international demand conditions are such that the country will export wheat so that it moves along the contract curve from M to N . Now the country increases the proportion of labour to capital in the production of wheat. But the total proportions remain unchanged, as indicated by the box diagram.

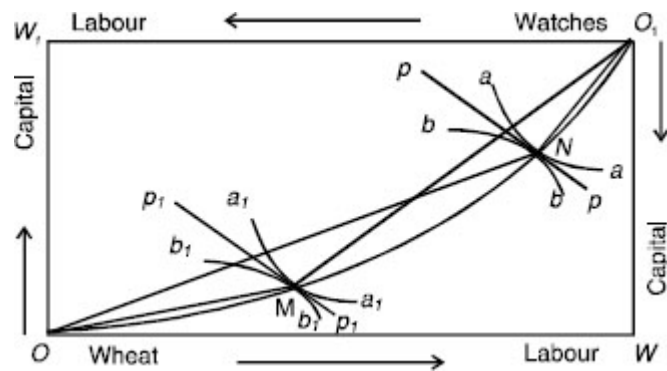


FIG. 3

International trade tends to increase the relative price of the export commodity wheat. This is illustrated in Fig. 4 where PC is the production possibility curve of the country for wheat and watches. The pre-trade situation is M which corresponds to the same point in the box diagram and p_1p_1 is the price ratio corresponding to the similar line in the box diagram. The after-trade situation is N which corresponds to the similar situation in the box diagram. The steep slope of price line pp tangent at N shows that in the after-trade situation, the price of wheat has increased relative to watches.

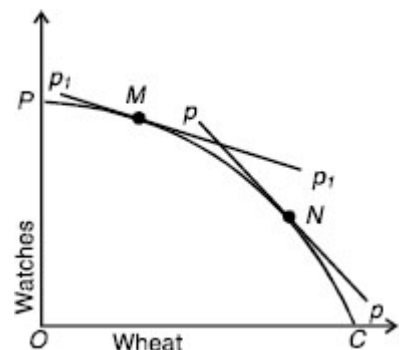


FIG. 4

As the price of wheat rises and the labour-intensive wheat industry expands in the country, it will bid factors away from the production of capital-intensive watch industry. But the watch industry will release more capital and less labour compared to the demand of the wheat industry. This will lead to the substitution towards the use of relatively more capital and less labour in both industries, as it is not possible to meet the increased demand for labour to produce more wheat. With increase in the use of more capital relative to labour, the marginal productivity of capital will fall and that of labour will rise in terms of both commodities. With the reward of each factor equal to its marginal value productivity, the real return to capital will fall and the real wage of labour will rise. Thus the marginal productivity of capital is lower at N after trade than at M before trade. This is indicated by the slope of the tangent pp at N which is steeper than the slope of

the tangent p_1p_1 at M in the box diagram. This proves the Stopler-Samuelson Theorem that international trade raises the price of the export commodity and increases the real reward of the abundant factor used in the production of the commodity of which the price has risen, and decreases the real reward of the scarce factor, and vice-versa.

IMPLICATIONS

The principal merit of the Stopler-Samuelson theorem is that on the basis of its restrictive assumptions, it avoids “complicated index number problems of weighing offsetting changes in money incomes and money prices.” But it has certain important implications.

Inequality of Income Distribution. It leads to the conclusion that opening of trade leads to expansion in the production of commodity produced with the abundant factor whose real reward increases. Thus income distribution moves in favour of the abundant factor and against the scarce factor. On the contrary, the imposition of a tariff on the importable commodity in such a country will reduce the level of trade and benefit the scarce factor.¹ In other words, the income distribution is against the abundant factor and in favour of the scarce factor.

For UDCs. These two aspects of the Stopler-Samuelson theorem have important implications for developing countries. In labour-abundant developing countries, the policy of export promotion rather than import substitution through tariffs should be adopted. For export promotion will increase the level of trade, raise the real reward of the abundant factor labour and lead to increased income and faster growth. On the other hand, the policy of import substitution through protective tariffs will lower the real reward of the abundant factor labour and raise that of the scarce factor capital thereby slowing down income and growth.

3. THE RYBCZYNSKI THEOREM : THE EFFECT OF FACTOR ENDOWMENT CHANGES ON TRADE

The H.O. theorem and the factor-price equalisation theorem are based on the assumptions of constant factor endowments. Rybczynski demonstrated in a paper published in 1955² the effect of change in one factor, keeping the other constant on the outputs of the two commodities entering into international trade. This has come to be known as the Rybczynski theorem. The Rybczynski theorem states that in a two-factor two-commodity economy a rise in the supply of one factor, keeping the supply of the other factor constant, leads to an increase in the output of the commodity that uses the increased factor intensively, and to a decline in the output of the other commodity. For instance, if the supply of labour increases, the output of the labour-intensive commodity increases and the output of the capital-intensive commodity declines. On the contrary, if the supply of capital increases, the output of capital-intensive commodity increases and the output of the labour-intensive commodity declines.

ASSUMPTIONS

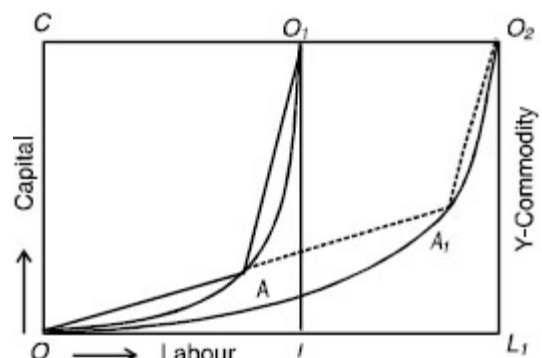
This theorem is based on the following assumptions:

1. There are two countries which trade with each other. But the analysis is geometrically confined to one country.
2. This country produces only two commodities X and Y.
3. These commodities are produced with two factors, labour and capital.
4. These two factors are perfectly divisible, perfectly mobile and are substitutable in some degree.
5. The production functions of both commodities are different. Commodities are linear and homogeneous.

9. Only the supply of one factor is changed while keeping that of the other as constant.

1. For analysis of this part of the Stopler-Samuelson theorem, refer to Chapter on Tariff.
2. T.M. Rybczynski, 'Factor Endowment and Relative Commodity Prices, *Economica*, Vol. 22, November 1955.

Given these assumptions, the Rybczynski theorem is explained in Fig. 5 with the aid of the box diagram where the origin of commodity X production is O and that of commodity Y production is O_1 . The country's original factor endowments are measured by the box OLO_1C . On this



box, labour is measured on the horizontal axis and capital on the vertical axis. Suppose A is the initial production point lying on the contract curve OAO_1 so that the capital-labour ratio for each commodity is given by the slopes of OA and O_1A . The slope of OA shows that commodity X (on the horizontal side) is labour intensive relative to commodity Y . Similarly, the slope of O_1A shows that commodity Y is capital intensive relative to commodity X . OA also reflects the output of X and O_1A the output of Y . OL is the supply of labour and OC the supply of capital.

Suppose the supply of labour increases from OL to OL_1 . With the increase in labour by LL_1 the new box is OL_1O_2C . Since the capital-labour ratio in each commodity is unchanged at constant commodity prices, the new production point is A_1 which lies on the extension of ray OA and the new ray O_2A_1 drawn parallel to O_1A . The new production point A_1 which lies on the contract curve OA_1O_2 shows that the output of the labour-intensive commodity X increases from OA to O_1A , and the output of the capital-intensive commodity Y declines from O_1A to O_2A_1 .

Rybczynski carries over the above proposition into a diagram showing production possibility curves. Thus in Fig. 10.6, the horizontal axis measures quantities of the labour-intensive commodity X and the vertical axis quantities of the capital-intensive commodity Y . The production possibility curve KL is derived from the box OLO_1C of Fig. 5. The equilibrium exchange rate between X and Y is at point A on the

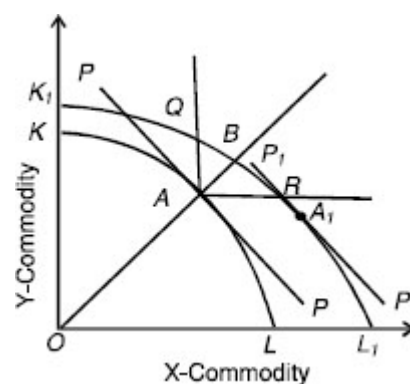


FIG.6

initial production possibility curve KL . When the supply of labour is increased, the new production possibility curve is K_1L_1 derived from the box OL_1O_2C of Fig. 5. The new equilibrium position is at point A_1 where the price line P_1P_1 is parallel to the initial price line PP . But this point A_1 cannot possibly be an equilibrium position at the new higher national income level unless Y is an inferior good. The increase in the supply of labour leading to the higher production possibility curve K_1L_1 implies an increase in the national income. As a result, the demand for both commodities will increase. Therefore, the new equilibrium point must lie within the quadrant QAR on the new production possibility curve K_1L_1 . For instance, the slope of a price line tangent to the production possibility curve K_1L_1 at any of the points Q , B or R must be flatter than at A . This implies that the terms of trade of the labour-intensive commodity X will worsen relative to the capital-intensive commodity Y . This proves the

proposition that the terms of trade of the commodity using relatively much of the factor whose quantity has increased must deteriorate. Accordingly in an open economy, concludes Rybczynski, "If it is now assumed that the commodity using relatively much of the factor, the quantity of which has been increased, is an item of export, this means that external terms of trade will deteriorate, conversely, should the commodity be an import, the terms of trade must improve." If the country happens to be a small and is not in a position to influence world price ratios by its internal adjustments, then, unambiguously, the output of commodity X will increase and that of commodity Y will decline, and the equilibrium will take place at point A_1 on the production possibility curve K_1L_1 given the same price ratio.

ITS CRITICISMS

Mishan³ has pointed towards two weaknesses of the Rybczynski Theorem. First, if the supply of the other factor of production is increased simultaneously, then no such clear quantitative results emerge. *Second*, it is very difficult to extend Rybczynski's result to a multi-factor model.

EXERCISES

1. Discuss the effects of change in commodity prices on real factor rewards in international trade.
2. Discuss the effect of factor endowment changes on international trade.
3. Write notes on: Factor Intensity Reversals, The Rybczynski Theorem.

³. E. J. Mishan, 'Factor Endowment and Relative Commodity Prices: A Comment,' *Economica*, November 1956.



EMPIRICAL TESTING OF COMPARATIVE COSTS AND H.O. THEORIES

1. INTRODUCTION

Economists have tried to test empirically theories of comparative costs and H.O. theorem. In this chapter, we discuss critically a few important attempts at testing statistically these two theories: the former is primarily associated with MacDougall and the latter with Leontief.

2. TESTING THE CLASSICAL THEORY

The classical theory of comparative advantage states that the country with the lower comparative labour costs for a commodity will export that commodity. In 1951 MacDougall¹ tested it by examining labour productivity in those industries where one of the trading countries appeared to have a comparative advantage as shown by its export performance. In the case of Britain and America, he found that the bilateral trade between them was only a small fraction of the total trade of each. Therefore, MacDougall tested the extent to which the *relative* exports of each country to third countries in the rest of the world were connected with its comparative labour productivity in relation to the other. His starting point was that in 1937 the American weekly wages in manufacturing were roughly twice as high as in

Britain. On this basis, MacDougall argued that America had the bulk of exports to third countries of commodities in which her labour productivity was more than double the British. Similarly, Britain had the bulk of exports to third countries of commodities in which her labour productivity was less than double the American. Of the twenty-five commodities taken by MacDougall, twenty obeyed this general rule.

However, he found that even in industries in which American productivity was twice as high as in Britain, America tended to export less than Britain. But America exported as much as Britain only when her productivity was two and a half times that of Britain. MacDougall attributed the higher British exports to third countries to Imperial preference, export-oriented industries, commercial leadership, etc. On the whole, MacDougall's results seemed to confirm the classical emphasis upon relative labour productivity in determining the pattern of world trade.

¹ G.D.A. MacDougall, "British and American Exports." A study suggested by the theory of comparative costs." *E.J.*, December 1951 reprinted in *Readings in International Economics*, Ch. 32.

Stern and Balassa in separate studies confirmed MacDougall's conclusion. Following MacDougall, using the data for 1950, Stern² found that the average wage in America was three and a half times the British. After equalising labour costs, the American exports were found to be less than the British, as in MacDougall's study.

Balassa³ carried out a more comprehensive study by analysing productivity in twenty-eight industries in America and Britain. He found a high correlation between productivity and export performance in third countries. His results were also in conformity with those of MacDougall's.

CRITICISMS OF THESE TESTS

These tests have supported the classical theory of international trade. But doubts have been expressed by Bhagwati on the significance of their results. Bhagwati⁴ using more elaborate statistical methods than MacDougall, Stern and Balassa found that linear regressions of export price ratios on labour productivity ratios for Britain and America gave no significant regression coefficients. The regressions for unit labour-costs and export price ratios were also insignificant. Bhagwati concludes: "These results, limited as they are, cast sufficient doubt on the usefulness of the Ricardian approach. Contrary, therefore, to the general impression (based on the MacDougall, Balassa and Stern results), there is as yet no evidence in favour of the Ricardian hypotheses." He further points out certain flaws in the procedure adopted by MacDougall and others that the reliance on the prediction on labour productivity unaccompanied by any explanation of why the labour productivity is what it is, and how, therefore, it may be expected to change, restricts the utility of the prediction. Moreover, even if we could forecast changes in labour productivity, we could not tell exclusively therefrom that the patterns of imports and exports would change in a specified manner."

3. THE LEONTIEF PARADOX

The first comprehensive attempt to verify the Heckscher-Ohlin model was made by Wassily Leontief in 1953.⁵ The Heckscher-Ohlin theory states that relatively capital-abundant country will export the relatively capital-intensive goods, and it will import the goods in whose production relatively large amounts of its relatively scarce factor labour are required. Leontief in his study reached the paradoxical conclusion that the United States which possesses a relatively large amount of capital and a relatively small amount of labour in relation to the rest of the world, *exported labour-intensive goods and imported capital-intensive goods*. This result has come to be known as the Leontief Paradox.

Leontief started his test of the Heckscher-Ohlin prediction that the United States would export its abundant factor capital in commodity form and import its scarce factor labour in commodity form. To test this prediction, Leontief used the 1947 input-output table of the U.S. economy. He aggregated 200 groups of industries into 50 sectors, of which 38 traded their products directly on the international market. He took two factors, labour and capital. He estimated the capital and labour requirements for production of one million dollars worth of United States exports and also one million dollars worth of United States import-competing commodities. Leontief's main empirical results are summarised in Table 1.

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2. R. Stern, "British and American Productivity and Comparative Costs in International Trade," *OEP*, October 1962.
 3. B. Balassa, "An Empirical Demonstration of Classical Comparative Cost Theory," *RES*, August 1963.
 4. J. Bhagwati, "The Pure Theory of International Trade," *EJ*, March 1964.
 5. W.W. Leontief, "Domestic Production and Foreign Trade: The American Capital Position Re-examined," *Proceedings of the American Philosophical Society*, September, 1953.

TABLE 1. CAPITAL AND LABOUR REQUIREMENTS IN PER MILLION DOLLARS OF US EXPORT AND IMPORT REPLACEMENTS, 1947

<i>Factor Requirements</i>	<i>Exports</i>	<i>Import Replacement</i>
Capital	\$ 2,550,780	\$ 3,091,339
Labour (man-years)	182,312	170,004
Capital-labour ratio	\$ 13,911	\$ 18,185

Leontief found that US exports used a capital-labour ratio of \$ 13,991 per man-year, whereas import replacements (substitutes) used a capital-labour ratio of \$ 18,185 per man-year. Thus his results showed that the capital-labour ratio in US import-replacement industries was 30% higher than the US export industries. It means that in the US import-competing industries are relatively more

capital-intensive than the export industries. As Leontief stated: "America's participation in the international division of labour is based on its specialisation on labour intensive rather than capital intensive, lines of production. In other words, the country resorts to foreign trade in order to economise in its capital and dispose of its surplus labour, rather than viceversa." Given the proposition that the United States is relatively capital-abundant, it exports labour-intensive goods. This is just contrary to the Heckscher-Ohlin theorem. Thus it is called the Leontief paradox.

These results surprised not only Leontief himself but economists throughout the world. The majority of economists criticised Leontief on methodological and statistical grounds. A few also carried out Leontieftype tests while others tried to reconcile the Leontief paradox with the Heckscher-Ohlin model. We take these issues one by one.

CRITICISMS OF LEONTIEF PARADOX

Leontief has been criticised on statistical and methodological grounds. We study some of the points of criticism:

1. 1947 not a Typical Year. Swerling⁶ did not consider 1947 as a typical year for testing the Heckscher model because the post-war disorganisation of production had not been corrected in the world by that year. Moreover, the United States was the only major industrial economy free of devastation of the war. Thus the Leontief study was basically a description of US trade in 1947.

2. Problem of Aggregation. Balogh⁷ criticised aggregation in the input-output matrix for computing indirectly capital-labour ratios. As a result, the labour-intensity of the US export industries might be spurious and attributable to the aggregation of capital-intensive exportable products with similar, non-export, labourintensive activities.

3. Incompatibility of Input-Output Model. Valavaris-Vail⁸ objected to the Leontief test on the ground that 'input-output models (except with rare-luck) are logically incompatible with international

trade.’ He argued that the Leontief model, with its fixed input coefficients, was incompatible with a world trade equilibrium in which every country gained from trade, full employment existed and the introduction of trade increased the output of some commodities and reduced that of others.

[6.](#) B.C. Swerling, “Capital Shortage and Labour Surplus in the United States,” *RES* Vol. 36, August, 1954.

[7.](#) T. Balogh, “Factor Intensities of American Foreign Trade and Technical Progress, *RES*, Vol. 37, November 1955.

[8.](#) Valavaris-Vail, “Leontief’s Scarce Factor Paradox,” *JPE*, Vol. 52, December 1954.

4. Low Capital-Labour Ratio Industries. Swerling criticised Leontief for including certain industries with low capital-labour ratios. Such industries were fisheries, agriculture and services like transport, wholesale trade, etc. These biased his results. In response to this criticism, Leontief⁹ reworked his study by taking a much wider range of industries but the results were similar to the original study.

5. Consumption Patterns. The Leontief Paradox does not take into consideration the impact of consumption patterns on the US exports and imports. According to Romney Robinson,¹⁰ the demand conditions within a country might be so biased towards the consumption of a commodity that it may produce it with a relatively abundant factor. As per capita income increases, the consumption patterns may be biased towards labour-intensive or capital-intensive commodities. Brown’s study¹¹ revealed that the US consumption patterns had bias towards labour-intensive commodities rather than capital-intensive commodities This contradicts the Leontief Paradox.

6. Durability of Capital. Buchanan criticised Leontief for using “investment-requirements coefficients” as capital coefficients in his study. He, therefore, failed to take into account the difference in the durability of capital in various industries.

7. Tariffs Ignored. Travis¹² argued that tariffs often distorted the pattern of trade and, thus, reflected relative factor endowments of a country. On this basis, the Leontief results were seriously affected by the US and foreign tariffs. Leontief's weakness was that he did not take tariffs into consideration in his study.

8. Neglect of Natural Resources. Buchanan¹³ criticised Leontief for neglecting the role of natural resources which were very important in determining trade patterns. Studies by Hoffmeyer and Vanek confirmed Buchanan's view.

9. Comparison of Capital Intensity Irrelevant. Ellsworth¹⁴ pointed out that the capital intensity of US import-replacement industries was irrelevant to the comparison. What is required is a comparison of the capital intensity of US exports with the capital intensity of the exports of other countries to the United States. Since the US is a capital abundant country, the goods produced by it to replace imports must be capital intensive. This is what Leontief arrived at in the case of import replacements. But he should have studied whether the goods imported in the United States are capital or labour-intensive in the countries of origin.

10. Labour Productivity. Leontief himself tried to explain his results. He argued that the US was a labour-abundant country relative to the rest of the world because the US workers were much more efficient than foreign workers. The productivity of US workers was three times the foreign workers. Leontief attributed the higher productivity of US workers to entrepreneurship, superior organisation and favourable environment in the United States rather than to the employment of a larger amount of capital per worker. Ellsworth regarded this conjecture of Leontief as "conceptual awkwardness." Bhagwati questions how the efficiency factor of three was arrived at by Leontief. According to him, this argument of Leontief is unpersuasive.

11. Neglect of Human Capital. Leontief has been criticised for not including the value of human capital. He took only physical capital.

Kenen¹⁵ in his study found that the Leontief Paradox was reversed when human capital was added to Leontief's physical capital.

[9.](#) W. W. Leontief, "Factor Proportions and the Structure of American Trade; Further Theoretical and Empirical Analysis," *RES*, November 1956.

[10.](#) R. Robinson, "Factor Proportions and comparative Advantage," *QJE*, May 1956.

[11.](#) A.J. Brown, "Prof. Leontief and the Pattern of World Trade," *Yorkshire Bulletin of Economic and Social Research*, November 1957.

[12.](#) W.P. Travis, *The Theory of Trade and Protection*, 1964.

[13.](#) N.S. Buchanan, "Lines on the Leontief Paradox," *Economic Internazionale*, November 1955.

[14.](#) P.T. Ellsworth, "The Structure of American Foreign Trade: A New View Examined," *RES*, August 1954.

[15.](#) P.O. Kenen, "Nature, Capital and Trade," *JPE*, October 1956.

12. Unbalanced Trade. Leamer found that the Leontief Paradox fails when trade is unbalanced. When he examined US trade in 1947, the US had a trade surplus and there was no evidence of the Leontief Paradox that its exports were relatively labour-intensive.

13. Factor Intensity Reversals. Leontief's results led to the presence of factor intensity reversals whereby a capital-abundant country will export its labour-intensive goods. Leontief has been criticised for taking only one country, (the United States) in his study. If he had taken a second country like Japan, he would have found US exports capital-intensive as compared with the Japanese exports.

Conclusion. Despite these criticisms, Leontief retested his results by using the average composition of US exports and imports for 1951. He enlarged the group of industries into 192 sectors. This later study confirmed the Leontief Paradox that US import-replacements were more capital-intensive relative to US exports, though their

capital intensity over US exports had been reduced to only 6%. Using the 1958 US input-output table, Baldwin¹⁶ found that the US import-competing industries were 27% more capital-intensive relative to the US exports. So the Leontief Paradox continues to persist in the United States.

EVIDENCES RELATING TO OTHER COUNTRIES

The Leontief-type approach has been followed by a number of economists to test the Heckscher-Ohlin Theory as applied to a number of countries.

Two Japanese economists, Tatemoto and Ichimura¹⁷ studied Japan's trade pattern with the rest of the world. It confirmed the Leontief Paradox that Japan, being a labour-abundant country, imported labourintensive commodities and exported capital-intensive commodities. These results were against the HeckscherOhlin theory. The authors attributed this result to the fact that about 75% of Japan's exports go to underdeveloped countries which are relatively less endowed with capital than Japan. But in trade with the United States, they found that the capital-labour ratio of Japanese exports to the US was lower than imports from the US. This result was in keeping with the Heckscher-Ohlin theory.

Stopler and Roskamp¹⁸ in their study of East German trade found exports to be capital-intensive and imports labour-intensive. These results are in conformity with the Heckscher-Ohlin theory because 75% of East German trade is with Communist countries, and East Germany is relatively abundant in capital compared with other countries of this group.

Wahl's¹⁹ study of the Canadian trade pattern revealed that Canada's exports were relatively capital-intensive than her imports. Since the bulk of the Canadian trade is with the United States, this result ran counter to the Heckscher-Ohlin theory.

Bhardwaj²⁰ in his study of India's trade pattern with the world as a whole found that Indian exports were labour-intensive relative to her

imports. This result was in line with the Heckscher-Ohlin theory. However, in another study of India's trade with the United States, he found that India's exports to the US were capital-intensive and her imports from the US were labour-intensive. This result apparently refutes the Heckscher-Ohlin theory.

[16.](#) R.E. Baldwin, "Determinants of the Commodity Structure of US Trade," *AER*, March 1971.

[17.](#) M. Tatemoto and S. Ichimura, "Factor Proportions and Foreign Trade: The Case of Japan," *RES*, November 1959.

[18.](#) W. Stopler and K. Roskamp, "Input-output Table for East Germany with Applications to Foreign Trade," *Bulletin of Oxford University Institute of Statistics*, November 1961.

[19.](#) D.F. Wahl, "Capital and Labour Requirements for Canada's Foreign Trade," *Canadian Journal of Economics and Political Science*, August 1961.

[20.](#) R. Bhardwaj, *Structural Basis of India's Foreign Trade*, 1961, and "Factor Proportions and the Structure of Indo-US Trade," *IEJ*, October 1962.

RECONCILIATION OF THE LEONTIEF PARADOX WITH HECKSCHER-OHLIN THEORY

Economists have attempted to resolve the Leontief Paradox by giving a number of factors which at the same time try to bring about a reconciliation with the Heckscher-Ohlin theory. We detail below some of the important explanations of the Leontief Paradox.

Productivity of US Labour. Leontief himself tried to explain the Leontief Paradox that the United States exported labour-intensive commodities. He argued that the United States was a labour-abundant country because the US workers were much more efficient than foreign workers. He conjectured that the productivity of US workers was three times higher than foreign workers. He attributed this to superior entrepreneurship and organisation and favourable American environment. Higher labour productivity, in turn, tends to raise the productivity of US capital. Leontief did not consider this

aspect. Kreinin's²¹ empirical test of the US labour revealed that it is superior to foreign labour by 20 to 25% and not 300% as estimated by Leontief. This does not go to prove that US is a labour-abundant country.

Human Capital. Leontief did not include the value of human capital in his calculations but emphasised that the American export industries employed more skilled labour than the import-replacement industries. Several economists investigated the relationship between investment in human capital and the US trade pattern. Baldwin found that by using human capital rather than physical capital, the US exports were more human capital-intensive than US import-competing production. So human capital confirms the Leontief Paradox.

Natural Resources. Leontief neglected the role of natural resources in relation to the US trade pattern. He took only labour and capital. Vanek²² in his study showed that the United States was relatively short of several natural resources. Since natural resources and capital are complementary in production, the US trade pattern conserves natural resources. Vanek argued that the United States might be relatively capital abundant but the US imports were capital-intensive relative to US exports because capital required large amounts of scarce natural resources for efficient production. This explains the Leontief Paradox. As a matter of fact, the United States imports natural resource products, like minerals and forest products, having high capital-labour ratios, and exports farm products having low capital-labour ratios. The need is to quantify the contributions of natural resources in US exports and imports, for a correct assessment of the Leontief Paradox.

Factor-Intensity Reversals. When there are factor-intensity reversals in the two trading countries, the Heckscher-Ohlin theorem breaks down and one of the countries must reveal a Leontief Paradox. It was Minhas²³ who made the first systematic study of factor-intensity reversals based on his constant elasticity of substitution (CES) production function. He investigated 24 industries

from 19 different countries and found factor-intensity reversals in five. He also ranked 20 industries common to the US and Japan in terms of their capital-labour ratios and found factor-intensity reversals for exports and imports. Subsequent studies by Lary, Ball, Leontief himself and other economists did not fully support Minhas's tests. Even if it is established that there are factor-intensity reversals, they fail to explain why the US exports are labour-intensive.

Trade Barriers. Studies by Travis and Baldwin have shown that trade barriers strengthen the Leontief Paradox. The United States restricts the import of labour-intensive commodities with high tariff and nontariff barriers. Baldwin's study revealed that the barriers against US imports were more restrictive on commodities having higher than average job content, especially in the unskilled job categories. But these studies have not been able to quantify the contribution of trade barriers to the Leontief Paradox.

[21.](#) M.L. Kreinin, "Comparative Labour Effectiveness and the Leontief Scarce Factor Paradox." *AER*, March 1965.

[22.](#) J. Vanek, *The Natural Resources Content of United States Foreign Trade, 1870-1955*, 1963.

[23.](#) B.S. Minhas, *An International Comparison of Costs and Factor Use*, 1963

Consumption or Demand Patterns. The Leontief Paradox does not take into consideration the impact of consumption patterns on the US exports and imports. Several studies have been made in this direction. As per capita incomes increase, the consumption patterns tend to be biased towards more labour-intensive or capital-intensive commodities. Brown's study^{[24](#)} revealed that the US consumption patterns had bias towards labour-intensive commodities rather than capital-intensive commodities. This result goes against the Leontief Paradox.

Research and Development. The Leontief Paradox, like the Heckscher-Ohlin theory, neglected the impact of technical change on trade patterns. Economists have pointed out that it is the steady flow

of new products that has greatly influenced the pattern of US exports. A study by Gruber, Mehta and Vernon²⁵ found a strong correlation between export performance of US industries and intensity of R & D activity. Raymond Vernon²⁶ explained it in terms of his *product cycle* hypothesis. He argues that the US has a comparative advantage in the production of *new* products which it introduces into world trade. The product cycle hypothesis suggests three product stages: new product, maturing product, and standardised product. In the new-product stage, production requires highly skilled labour and the country is an exporter of the product. As the product matures, marketing and capital costs increase. As the product is standardised, the technology stabilises and the product becomes a general consumer good. This lead to its mass production which requires raw materials, capital and unskilled labour. So the comparative advantage shifts from a country relatively abundant in skilled labour to a country abundant in unskilled labour. But research on the product cycle hypothesis has yet to prove its correctness in relation to the United States. However, there is no denying the fact that R & D has played a crucial role in determining the trade pattern of the United States.

EXERCISES

1. Critically examine the empirical findings on the classical theory of international trade.
2. Explain the Leontief Paradox. Does it invalidate the Heckscher-Ohlin theory of international trade?
3. How have the factor proportions theory stood upto the test of empirical analysis?
4. What is the Leontief Paradox? How and to what extent it can be reconciled with Ohlin's theory of international trade?

²⁴. A.J. Brown, "Prof. Leontief and the Pattern of World Trade," *Yorkshire Bulletin of Economic and Social Research*, November 1957.

- [25.](#) W. Gruber, D. Mehta, and R. Vernon, "The R & D factor in International Trade and International Investment of US Industries," *JPE*, February 1967.
- [26.](#) R. Vernon, "International Investment and International Trade in the Product Cycle," *QJE*, May, 1966.



EXTENSIONS OF H.O. THEORY : DYNAMIC FACTORS IN INTERNATIONAL TRADE

1. INTRODUCTION

The H.O. Theorem is based on highly restrictive assumptions that there are two countries where quantities of labour and capital (factor endowments) are fixed, tastes (preferences or demand) are unchanged, technology and returns to scale are constant and transport costs are zero. In reality, all these factors which affect trade are constantly changing. It is, therefore, useful to relax some of these assumptions in order to study the impact of changes in factor endowments, tastes, transport costs, technology, etc. on international trade and thus extend the H.O. theory.¹

2. CHANGES IN FACTOR ENDOWMENTS

When there are changes in factor endowments (or factor supplies) of a country, given no change in technology, they bring about changes in output, volume of trade, income, employment, terms of trade and gains from trade between the two trading countries. In order to analyse the impact of changes in factor endowments on these variables, let us consider a case in which the supply of only one factor increases in one country with no change in the supply of factor in the other country.

ITS ASSUMPTIONS

This analysis assumes:

- (a) There are two countries, *A* and *B*.
- (b) There are two commodities *X* and *Y*.
- (c) There are two factors, labour and capital.
- (d) The supply of labour increases and that of capital remains constant.
- (e) Factors are fully employed.
- (f) Commodity *X* is labour-intensive and *Y* is capital-intensive.
- (g) Commodity and factor prices are constant.
- (h) *X* is exported and *Y* is imported.
- (i) There are constant returns to scale.

¹ Technological changes are discussed in the next chapter under Posner's Technological Gap Model.

Impact on Output. Given these assumptions, we consider the case of country *A* where there is an increase in only the supply of labour endowment. Commodity prices remaining constant, an increase in the supply of labour increases the output of the labour-intensive commodity *X* and reduces the capital-intensive commodity *Y*. This is explained in terms of Fig. 1 where the horizontal axis measures quantities of the labour-intensive commodity *X* and the vertical axis of the capital-intensive commodity *Y* in country *A*. Its

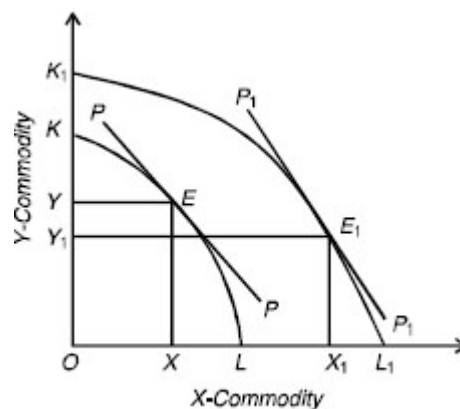


FIG. 1

initial production possibility curve is KL and the production point is E where the price line PP is tangent to the KL curve and it produces OX of X and OY of Y .

When the supply of labour *alone* increases, the production possibility curve KL shifts upwards to $K_1 L_1$. Note that even if the supply of capital does not increase, the new production possibility curve shifts slightly on the left side from K to K_1 . This is because labour is also used in the production of commodity Y . Commodity prices being constant, the price line $P_1 P_1$ (which is parallel to PP) is tangent to the curve $K_1 L_1$ at the production point E_1 , where country A produces OX_1 of X and OY_1 of Y .

The comparison of the two production points E and E_1 shows that after the increase in the supply of labour, the output of the labour-intensive commodity X has increased from OX to OX_1 and that of the capital-intensive commodity has decreased from OY to OY_1 , even though the supply of capital has remained unchanged.

Impact on Volume of Trade. If country A exports commodity X , an increase in the supply of its relatively abundant labour endowment tends to increase the volume of its exports. This is illustrated in Fig. 1. Suppose before an increase in the supply of labour, A was exporting OX quantity of X to country B . With an increase in the supply of labour, A 's production possibility curve shifts upward to $K_1 L_1$ from KL and the new production point is established at E_1 on the $P_1 P_1$ line which is parallel to the PP line, showing constant terms of trade. As a result, its exports of labour-intensive commodity X increase from OX to OX_1 . Thus it is able to increase the exports of X more than proportionately to the reduction in Y .

Impact on National Income. Given the assumptions stated above, an increase in the supply of labour and the consequent outward shifting of the production possibility curve implies an increase in the national income of country A . This is explained in Fig. 2. The initial production possibility curve is KL with the equilibrium point A , given a

level of national income. When the supply of labour increases, the new production possibility curve is K_1L_1 . This higher production possibility curve K_1L_1 implies an increase in national income. The new equilibrium position is at A_1 where the price line P_1P_1 is tangent to K_1L_1 curve and is parallel to the price line PP . But A_1 cannot possibly be an equilibrium point at the higher national income level, except if

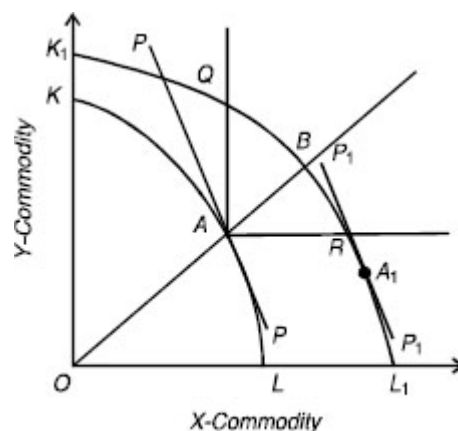


FIG. 2

Y is an inferior good. This is because with the rise in national income, the production of both X and Y should increase. But at point A_1 , the output of X increases and that of Y decreases. Therefore, the new equilibrium point must lie within the quadrant QAR on the K_1L_1 curve. But it cannot be either Q or R because at Q more of Y and the same quantity of X is produced and at R more of X and the same quantity of Y is produced. Therefore, the point of equilibrium will be B where both X and Y are produced more. But here the price line (not shown) will not be parallel to the PP price line. This goes against the assumption of constant prices of the two commodities.

Impact on Employment. Given factor and commodity prices, when the supply of labour increases in country A , there will be transfer of labour from capital-intensive to labour-intensive industry, despite full employment in the country. This is explained in the box diagram Fig. 3, where the origin of commodity X is O and that of commodity Y is O_1 . Country A 's factor endowments are measured by the box OLO_1C . With the increase in labour supply by LL_1 , the new box is OL_1O_2C . Initially, A produces at point A on its contract curve OAO_1 , where it produces OA of X and O_1A of Y . With

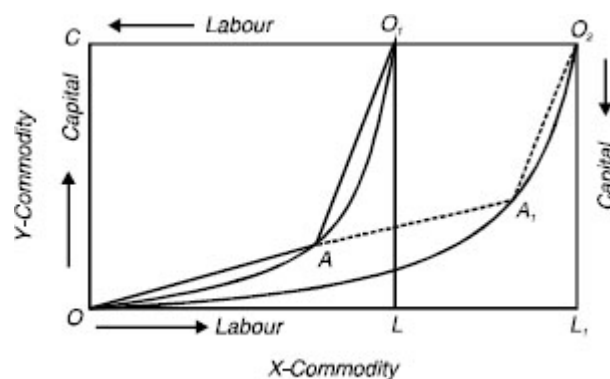


FIG. 3

the increase in labour supply, it produces at A_1 on its contract curve OA_1O_2 , where it increases its production of X from OA to OA_1 and reduces its production of Y from $_1A$ to O_2A_1 with no change in factor and commodity prices ($O_1A \parallel O_2A_1$).

The increase in the production of X by AA_1 has been possible by transferring some labour from the capital-intensive industry Y to the labour-intensive industry X , even though we have assumed full employment in the economy.

Impact on Gains from Trade and Terms of Trade. In order to understand the impact of an increase in the supply of labour in country A on the gains from trade and terms of trade, it is better to explain it in terms of the offer curves.

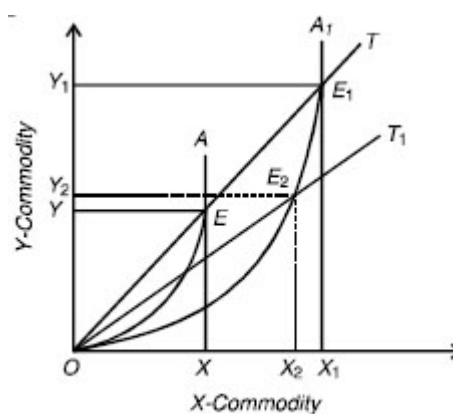


FIG. 4

In Fig. 4, OA is the initial offer curve of country A . At the equilibrium point E with terms of trade OT , it exports OX of commodity X and imports OY of commodity Y . As a result of increase in the supply of labour, its offer curve shifts from OA to OA_1 at the constant terms of trade OT .

The new equilibrium will be at point E_1 where country A exports XX_1 more of X and imports YY_1 more of Y . But at constant terms of trade it does not gain from trade because it must offer more X per unit of Y than before. In this situation, the terms of trade move against country A from OT to OT_1 . The new equilibrium is on OT_1 with the OA_1 offer curve at E_2 where A gains more from trade by exporting larger quantity XX_2 of X in exchange for lesser quantity YY_2 of Y . Thus its terms of trade also improve.

3. ECONOMIES OF SCALE

The H.O. theorem assumes constant returns to scale in the production of two commodities that are traded by two countries. It means that the average cost and marginal cost of producing the two commodities remain constant as production increases. This is unrealistic because empirical studies of cost functions in many developed countries have found evidence of decreasing costs or increasing returns to scale. Increasing returns to scale may be due to internal or external economies. But internal economies which accrue to a firm are inconsistent with the assumption of perfect competition because they ultimately lead to one firm becoming so large as to become a monopoly firm and thus influence the price of its product. On the other hand, external economies are consistent with perfect competition because these occur when all firms in an industry simultaneously experience a lowering in their average costs as their level of production expands.

ASSUMPTIONS

To see how external economies of scale lead to trade, it is assumed that:

- (i) there are two countries, *A* and *B*;
- (ii) each has identical factor endowments, technology and tastes;
- (iii) each is capable of producing both *X* and *Y* commodities; and
- (iv) relative factor and *Y* commodity prices are identical in the two countries.

EXPLANATION

Given these assumptions, trade would not be possible, according to the H.O. theorem. But if both *X* and *Y* commodities are produced under decreasing costs or increasing returns to scale, trade is possible between the two countries. Country *A* will specialise in the production of *X* and *B* in the production of *Y*. *A* will exchange a part of its output of *X* with a part of the *Y* output of *B*. As a result, the level

of consumption rises in both the countries. As total production of both X and Y increases due to external economies of scale, both A and B countries gain from trade. In Fig. 5, BNA is the production possibility curve of both B and A because both countries are identical. Since they have identical tastes, they have the same community indifference curve CI . Thus in the pre-trade situation each country produces and consumes at point N . If the two countries trade, A completely specialises in the production of commodity X , shifting production from N to A , while B completely specialises in the production of Y , shifting production from N to B .

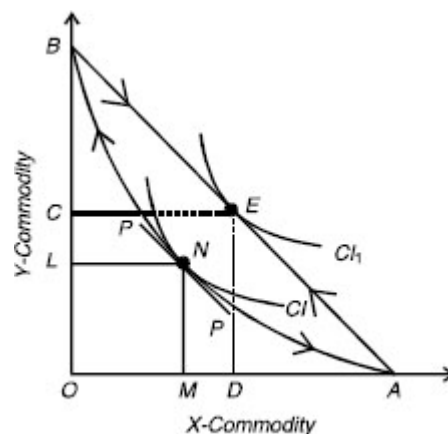


FIG. 5

Trade can take place between the two countries based on decreasing costs, even though the relative commodity prices are identical in both at point N . Given the international price ratio (terms of trade) BEA , a feasible equilibrium would be point E with trade triangles BEC and EAD . Country A exchanges DA of X with country B 's CB of Y . Due to increased specialisation, both countries consume more being at point E on the higher community indifference curve CI_1 . Thus both countries gain MD of X and LC of Y .

CONCLUSION

Increasing returns to scale furnish a basis for trade that is independent of comparative advantage. It is an important factor in extensive industrial specialisation and inter-industry trade of the developed countries with similar factor endowment. This explains why these countries specialised in manufacturing first. This view justifies protectionist policies of LDCs for manufacturing industries so that they may realise economies of scale as they grow. Still, economists use the assumption of constant returns to scale for the sake of simplicity in their theoretical analysis.

4. CHANGES IN TASTES

The H.O. Theorem is based on the assumption of constant tastes. But what happens if a country's tastes change, given its technology and factor endowments. A change in tastes will alter its volume of trade and terms of trade. If a country's tastes change from its exportable to importable commodity, its volume of trade increases and its terms of trade declines. On the contrary, a change in tastes from its importable to exportable commodity,

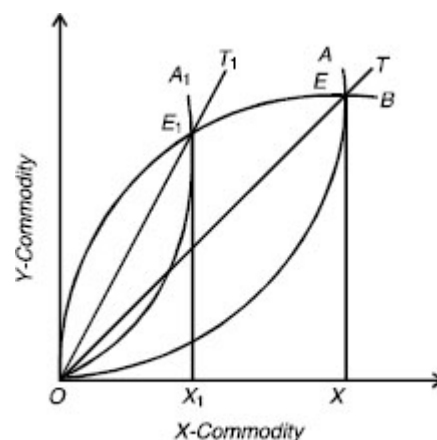


FIG. 6

reduces its volume of trade and improves its terms of trade. This is explained in terms of the offer curves in Fig. 12.6, where OA is the offer curve of country A and OB of country B . With unchanged tastes A exports OX of X and imports XE of Y . Suppose tastes in A country change from its importable commodity Y towards its exportable commodity X , its factor endowments, technology, etc. remaining unchanged. This shifts its offer curve OA to the left to OA_1 because its need for Y has become less intense. It will now offer less of X than before in exchange for Y to country B . Thus at its new equilibrium point E_1 where the offer curve OA_1 cuts the offer curve OB , country A exchanges OX its exportable commodity X for X_1E_1 of Y . As a result, its volume of trade has declined with change in tastes: $OX_1 + X_1E_1 < OX + XE$. But its terms of trade have improved as shown by the terms of trade line OT in exchange for a large quantity X_1E_1 of Y .

5. DIFFERING DEMAND CONDITIONS

Both the classical and H.O. theories do not consider the influence of demand on international trade. But given the supply conditions, differing demand pressures may lead to differences in price ratios in the two countries and to exchange of commodities between them at world price ratio. This case is explained in Fig. 7. Suppose there are two countries A and B with a common production possibility curve

AB. In the pre-trade situation, different demand conditions relating to commodities X and Y have different relative price ratios, as shown by P_1 in country A and P_2 in country B. The consumption and production point of A is F where its Cl_1 curve is tangent to the production possibility curve. Similarly, the consumption and production point of B is K where its Cl_2 curve is tangent to the production possibility curve.

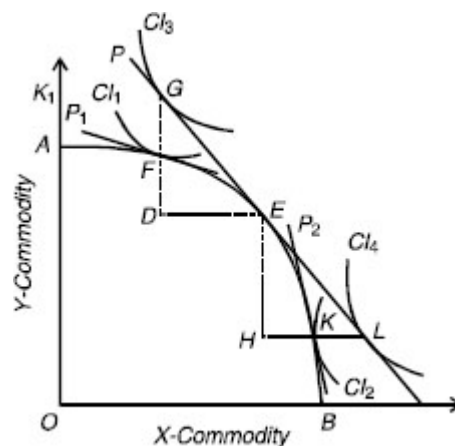


FIG. 7

As is clear, A specialises in the production of capital-intensive commodity Y and B in the labour-intensive commodity X. When trade begins at the international price ratio P both countries would specialise in the production of both commodities and their production equilibria would converge on point E. As a result, the consumption level of A shifts upward along the price line P at point G where it is tangent of the higher Cl_3 curve. Similarly, the consumption level of B shifts to a higher level L where P is tangent to the Cl_4 curve. Both points G and L show the pressure of higher demand for both commodities in the two countries. Trade between the two countries will be on the basis of trade triangles GED and ELH. Now country A exports DE of X for HE of Y of country B. Thus with increase in demand the capital-intensive country A exports the labour-intensive commodity X and the labour-intensive country B exports the capital-intensive commodity Y. This is the case of *demand reversal* which also explains the Leontief paradox.

6. TRANSPORT COSTS

The H.O. theory assumes zero or no transport costs. This is unrealistic because transport costs are important in their impact on the price of a traded commodity, its production and consumption, and volume of trade in two trading countries. Transport costs include all expenses incurred in transporting a commodity from one country to another. They include loading, unloading and freight charges,

insurance premium and interest cost. With the inclusion of transport costs, a commodity will be traded only if the price difference between two countries before trade is more than the cost of transporting it.

ITS ASSUMPTIONS

This analysis assumes that

- (a) there are two countries *A* (America) and *B* (Britain);
- (b) they trade in one commodity, say steel;
- (c) country *A* exports steel and *B* imports it; and
- (d) transport costs are divided equally between the two.

EXPLANATION

Given these assumptions, the effects of transport costs on these trading countries are explained with the help of Fig. 8. The price of steel is measured vertically on a common axis, *O*. Quantities of steel produced and demanded in country *A* are measured to the left for this exporting country (*X*) and to the right for the steel importing (*M*) country *B*. The demand and supply curves are shown by *D_A* and *S_A* for country *A* and *D_B* and *S_B* for country *B*. They are drawn back-to-back. Before trade, each country produces the quantity at a price determined by the intersection of their respective demand and supply curves. It is *OQ_A* quantity at *Q_AE* price in *A* and *OQ_B* quantity at *Q_BE* price in *B*. When trade begins, *A* will export steel to *B*. As a result, its price rises in *A* and falls in *B*. For the steel market to clear under perfect competition, there has to be the same price in both the countries. It is shown by the horizontal line *P₅P₅*. This line cuts the *D_A* and *S_A* curves of country *A* at *A₁* and *A₂* and *S_B* and *D_B* curves of country *B* at *B₁* and *B₂* respectively. Country *A* produces *Osx*, consumes *Odx* and exports *dxsx*, while country *B* produces *Osm*, imports *smdm* (= *dxsx*) and consumes *Odm*.

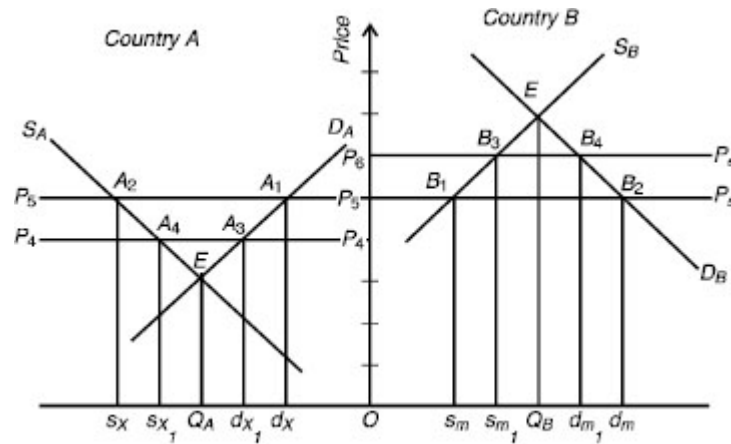


FIG. 8

When transport costs are introduced, the exporting country regards them as equivalent to a reduction in the price of steel by the amount of transport costs. On the other hand, the importing country regards them as an increase in the price by the amount of transport costs. This decrease and increase in the price of steel is on the previous trading price (P_5P_5 in the figure), so that the volume of trade is in equilibrium in the two countries. This occurs when the price P_4P_4 cuts DA and SA curves of country A at A_3 and A_4 points respectively. Country A produces Osx_1 , consumes Odx_1 and exports $dx_1 - sx_1$. On the other side, in country B, the price line is P_6P_6 which cuts its SB and DB curves at B_3 and B_4 points respectively. Country B produces Osm_1 , imports $sm_1 - dm_1 (= dx_1 - sx_1)$ and consumes Odm_1 .

In the above case, the transport costs are shared equally by each country because the slopes of D and S curves in the two countries are the same. If the slopes of the D and S curves of one country in relation to the D and S curves of the other country are drawn more steeply, the share of the transport costs will fall on the first country.

7. THE SPECIFIC FACTORS MODEL

The specific factors model modifies the two-by-two-by-two H.O. model. The H.O. model assumes two countries, two commodities

and two factors. But the specific factors model assumes two countries, two commodities and three factors. Of the three factors, two, say, land and capital, are specific to the production of the two commodities. For instance, land may be specific for the production of commodity X and capital may be specific for the production of commodity Y . Thus *specific factors are those that are suitable for a specific use and cannot be transferred from one industry to another*. The third factor labour is common to both industries and is mobile between them within each country.

ITS ASSUMPTIONS

The specific factors model is based on the following assumptions :

1. There are two countries, A and B .
2. There are two commodities, X and Y .
3. There are three factors of production, land, capital and labour. Land is specific to the production of X , capital is specific to the production of Y and labour is common to both X and Y production which is mobile within two industries in each country.
4. Country B uses more labour in comparison to country A .
5. Labour is subject to diminishing marginal physical product (MPL).
6. There is perfect competition in commodity and factor markets.
7. Technology in the production of X and Y is identical in each country.
8. Consumer preferences and tastes are identical in both countries.

EXPLANATION OF THE MODEL ¹

Given the above assumptions, the specific factor model states that the pattern of trade between A and B countries will be determined by the relative abundance of their two specific factors. The specific

factors model is explained in Fig. 9 where AA_1 is the production possibility curve of A and BB_1 of country B . As is clear from the figure, capital-specific country A has a comparative advantage in the production of commodity Y and land-specific country B has a comparative advantage in the production of X . Assuming a common community indifference curve CI for both A and B countries, it is tangent to the curve

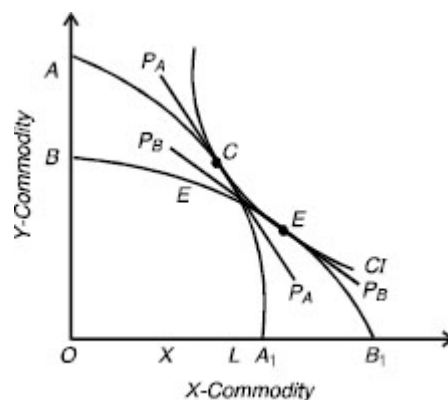


FIG. 9

AA_1 at point C and to the curve BB_1 at point E . In the pre-trade situation, country A will produce and consume X and Y commodities at point C and country B at point E . The domestic price ratio of country A is P_A/P_A which passes through point C and that of country B is P_B/P_B which passes through point E . The price line P_B/P_B is flatter than P_A/P_A . It means that the price of commodity X is lower in B than in A and commodity Y is relatively cheaper in A than in B . When trade begins between the two countries, the capital-specific country A will export the relatively cheap capital-intensive commodity Y and the land-specific country will export the relatively cheap labour-intensive commodity X . Thus the specific factors model arrives at the same conclusion as provided by the H.O. model.

EXERCISES

1. Explain the role of dynamic factors in international trade.
2. Explain the impact of changes in factor endowments on output, volume of trade, national income, employment, gains from trade and terms of trade.
3. Explain the specific factors model of international trade.
4. Write notes on the effects of : (a) Economies of Scale on International Trade; (b) Changes in Tastes on International Trade;

(c) Differing Demand Conditions on International Trade; (d) Effect of Changes in Transport costs on International Trade.

1. There are a number of variants of the model. Interested readers may consult R.W. Jones, "A Three Factor Model in Theory, Trade and Policy" in J.N. Bhagwati *et al* (eds.), *Trade, Balance of Payments and Growth*, 1971; W. Mayer, "ShortRun and Long-Run Equilibrium for a Small Open Economy ," *J.P.E.*, Sept. 1974; J.P. Nearuj, "Short-Run Capital Specificity and the Pure Theory of International Trade", *E.J.* 88, 1978.



SOME NEW THEORIES OF INTERNATIONAL TRADE

1. INTRODUCTION

In the preceeding chapters, the classical and Heckscher-Ohlin (H.O.) theories have been discussed in detail alongwith their variants, refinements and extensions. Recently, several economists have discussed some new approaches to trade theories which are explained below.

2. THE KRAVIS THEORY OF AVAILABILITY

In 1956, I.B. Kravis¹, an American economist, questioned the assumption of the classical theory that technology was the same in all trading countries. While testing the H.O. theory he wanted to find out whether labour-intensive exports were produced by cheap labour. But he found that in almost every country the exporting industries paid the highest wage rates. According to him, a country produced and exported those goods which it had 'available', that is, goods developed by its entrepreneurs and innovators. Thus, Kravis propounded the theory that the commodity composition of trade is determined primarily by 'availability'. Availability means an elastic supply. Trade takes place in only those goods which are 'not available at home.' By this phrase he means (a) a country will import

those goods which are not available in the absolute sense, for example, diamonds; (b) export those goods which are available in quantities greater than domestic demand.

Kravis has explained four factors which influence availability. They are: natural resources, technical change, product differentiation, and government policy. Firstly, it is the availability of scarce natural resources that determines the trade pattern of a country. The second factor is the availability of technical knowledge possessed by a country for producing a particular commodity which it exports. The third factor is product differentiation which confers temporary monopoly of production on the innovating country so that it is able to export its commodity until the importing country imitates. Government policy influences trade in a negative way. Tariff policies, transport costs, cartelization etc., tend to eliminate from trade those goods which are available to a country through domestic production at slightly higher cost. Thus unavailability of a commodity is the result of lack of natural resources, technical knowledge, product differentiation or protectionist policies.

1. Irving B. Kravis, " 'Availability' and other influences on the Commodity Composition of Trade," *J.P.E.*, April 1956.

The availability theory can be explained with the help of an example. Suppose there are four countries: America (A), Britain (B), Canada (C) and Denmark (D). There are two goods, food (F) and manufactures (M). Both goods require labour and capital. But the production of F also requires land, and the production of M technical knowhow. It is further assumed that countries A , B and C possess land while B , C and D possess technical knowhow. Hence country A can only produce good F and country D only good M , but the other two countries B and C can produce both goods.

Suppose that the marginal rate of transformation between goods F and M is constant in both countries B and C , and that it is 5 F for 1 M in country B and 3 F for 1 M in country C . An equilibrium price ratio between F and M will be determined by the world demand conditions

and production possibilities. Based on availability, country *A* will always exports good *F*, and *D* country good *M*. But the equilibrium price ratio governs the trade patterns of countries *B* and *C*. If the price ratio is less than 3 *F* for 1 *M* both would export *F*. If it is greater than 5 for 1 *M*, they would export *M*. If the price ratio is set at 4 *F* for 1 *M*, then country *B* would export *F* and *C* country good *M*.

To sum up, country *A* would export good *F* to country *D*, and country *D* would export good *M* to country *A* on the basis of availability theory since each country cannot produce the imported good domestically. However, trade between *B* and *C* can be explained in terms of the comparative cost theory since both countries can produce both goods.

Prof. Findlay has related the availability approach to the factor proportions theory. Suppose there are two countries *A* and *B*, producing both goods *F* and *M*. Both have the identical endowment of labour and capital and the same technical knowledge for producing the two goods. But country *A* has more land than *B*. Further, land is required only for producing good *F* and technical knowhow only for producing good *M*. Given these assumptions, both countries will be able to produce the same quantity of good *M* if all resources are used for the purpose. But *A* can produce more of good *F* than *B* since she has more land, if all resources are used to produce this good. The production possibility curve of *B* country would be *BA* as shown in Fig. 1 and that of *A* country *BA*₁, lying outside. At terms of trade shown by the slope of the lines *PP* and *P*₁*P*₁ and demand proportions shown by the slope of ray *OR* from the origin, it is clear that country *A* will export good *F*. It is the higher ratio of land to capital and labour in *A* that explains why that country exports *F* and not country *B*.

However, we can argue that the availability approach is superior to the factor proportions theory. Suppose that good *M* has always a higher capital-labour ratio than good *F* and that country *A* has a higher capital-labour ratio than country *B*. But the same technical knowledge is available in both countries. Production of *F* requires

land which is available only in country A, while production of M requires iron-ore which is available only in country B. That A will export good F and country B good M . This means that the capital-abundant country A will export the labour-intensive good F , and vice versa. If the factor proportions reasoning is applied in the above manner, the answer would be wrong.

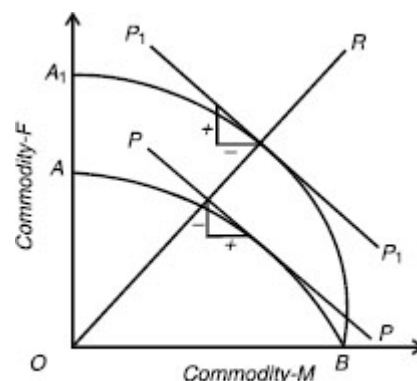


FIG. 1

But if the availability approach is adopted, then the availability of land in A and of iron-ore in B would give the right answer. If it is argued that country A has abundance of land and B of iron-ore, therefore A exports the land-intensive good F and country B exports the iron-intensive commodity M , then the factor properties theory also gives the correct answer. Findlay opines that since the list of specific types of natural resources is a very long one, generating the factor proportions approach in this manner becomes a very clumsy tool.

The availability approach is also used to explain special consumer preferences as for Scotch whisky and Swiss watches. In this case, foreign consumers have an 'irrational' attachment to the source of such goods on the basis of past excellent quality, advertising or some other reason. They are, therefore, prepared to pay more for such a commodity from the particular country than for an objectively identical product from another country. Hence a country that produces a commodity of this type will enjoy more favourable terms of trade than its competitor country.

Its Criticisms. The availability theory has not been accepted as an alternative to the comparative cost and factor proportions theories. It has been criticised as lacking in empirical evidence and as an inadequate explanation of trade.

1. Applicable in Special Cases. The availability approach as an explanation of the trade pattern is applicable in special cases. According to Findlay, availability as the main determinant of trade

pattern is true only in very special cases where there are as many commodities as there are countries such that each of the commodities requires an input that is not required by any of the others, and that each country has only one of these types of inputs. For explaining trade in commodities which require readily available inputs, traditional theory is definitely superior.

2. Fails to State Testable Hypotheses. Jagdish Bhagwati points out that the availability approach fails to state precisely testable hypotheses. However, he derives five hypotheses from this theory: (1) A country's imports will be characterised by domestic inelasticity of supply. (2) A country's imports will be characterised by the excess of foreign over domestic elasticity of supply. (3) A country's export industries will show rates of technical progress higher than the national average. (4) A country's export industries will show higher rates of technical progress than the same industries in the trading partners. (5) A country's export will be intensive in the use, or consist of raw materials which are relatively abundant in the country. But such Kravis-type hypotheses have neither been clearly formulated and analysed so far nor tested systematically with empirical evidence.

3. No Adequate Explanation of Trade Patterns. The availability approach is not an adequate explanation of the trade pattern of a country. It is possible that a country may be exporting a commodity though in a smaller quantity even if foreign consumers do not have attachment to it. Or, it is possible that the country may switch over to the production of some other commodity where its resources can be used more profitably even if foreign consumers do not have preference for it. "What Kravis has in mind seems to be trade in certain articles to which a snob value is attached and which should not otherwise enter world trade as cost differences are too small to warrant international trade."

3. LINDER'S THEORY OF VOLUME OF TRADE AND DEMAND PATTERN

The Swedish economist, S.B. Linder¹, has propounded a theory that explains the volume of trade in manufactures as proportion of national income between different pairs of trading countries. Linder argues that as a country's per capita income grows, its representative-demand pattern causes an expansion in the domestic production of certain manufactures. This expansion causes such reductions in the costs of these manufactures that they become the country's new comparative advantage exports. In this way, a country comes to export its representative demand product.

Its Assumptions. Linder's theory is based on the following assumptions :

¹. *An Essay on Trade and Transformation*, 1961.

1. A country's potential trade is limited to those goods which have a domestic demand.
2. The potential trade between two countries is limited to those goods for which demand exists in both countries.
3. The goods for which domestic demand exists, is determined by per capita income.
4. The potential trade between two countries depends on broadly similar income levels.

The Theory. To begin with, Linder makes a distinction between trade in primary products and in manufactures. While trade in primary products can be explained in terms of relative natural resources endowments, that in manufactures cannot be so explained. For the latter, there are many complex factors such as technological superiority, managerial skills and economies of scale which cannot be put into a precise and predictable pattern. He, therefore, does not explain the precise composition of trade in manufactures. Instead, he propounds a theory concerning the volume of trade in manufactures

as proportion of national income between different pairs of trading partners.

The analytical framework of Linder's theory can be explained as follows. The pre-condition for trade in manufactures as an export is the presence of home demand. This is due to several reasons: (a) foreign trade is only an extension of domestic trade; (b) there are innovating centres on existing industries; and (c) it is domestic demand which gives manufactures export possibility. But the main reason is that the foreign market is risky and the home market is not so. Therefore, producers do not wish to depend on foreign market alone. It follows that the internal demand pattern determines the range of potential export commodities.

A country will export only those products for which it has a large and active domestic demand. It is only when the production for the domestic market is large that firms are able to achieve economies of scale and reduce costs, and enter the foreign market.

According to Linder, a country will export its products more to those countries whose income levels and demand patterns are similar to those of the exporting country. This is what he calls "preference similarity". This preference similarity leads to overlapping of demands. Linder argues that other things being equal in a given country, consumers in higher income groups demand high quality goods and those in low income groups demand low quality goods. The same rule applies at the international level where on an average low-income countries will tend to demand low quality products and high income countries high quality products. This does not mean that high income countries do not demand low quality products, and low income countries high quality products. In fact, income distribution is not equal in any society. High and low income groups are found in every country. That is why there is preference similarity in different countries and demand patterns overlap. These lead to the existence of trade relations among countries, and every country produces and exports a variety of manufactured products after meeting its domestic demand.

Linder's theory of preference similarity or overlapping demand is explained in terms of Fig. 2.

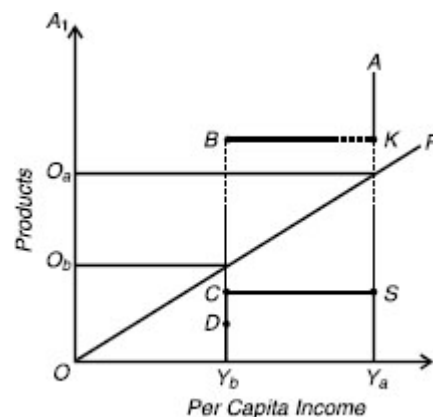


FIG. 2

We take two countries *A* and *B*. Per capita income is taken on the horizontal axis and quality products on the vertical axis. Ray *OR* depicts relationship between them. Country *A* with higher per capita income *OY*. demands higher quality products *Qa*; while country *B* with lower per capita income *OYb* demands lower quality products *Qb*. If there is equal distribution of income among all persons in each country, there will be no trade between the two countries because each country will produce only one standard quality product demanded by the residents.

In reality, income distribution is uneven. So in each country products of both qualities are demanded. Suppose in country *A* income distribution leads to demand for both products in the range *AS*. while in country *B* the range is *BD*. The range of overlap demand in the two countries is *BC = KS*. Since there is overlapping of demands, trade is possible between the two countries. The higher per-capita income country *A* will export the higher quality product *Qa* to the lower per capita income country *B* to meet the demands for consumers in higher income group. On the other hand, the lower per capita income country will export the lower quality products *Qb* to the higher per capita income country *A* to meet the demands for consumers in lower income group. The greater the overlap in the product composition of potential exports range of a trading country, the larger will be the volume of trade. The larger the potential volume of trade, the higher will be the income level in the trading country. And, the larger the potential volume of trade, the larger will be the actual volume of trade.

Criticisms. Linder's theory is an improvement over the H.O. theory. The latter is based on the hypothesis that it is differences in factor

endowments that lead to trade between two countries. On the other hand, Linder's theory asserts that trade can take place when factor endowments are similar. It says that the volume of trade will be the greatest between countries with similar capital-labour ratios and per capita income levels.

ITS WEAKNESSES

But it has certain *weaknesses*.

1. Linder's theory does not explain the reason that leads a country to develop the home market for a product which it ultimately exports.
2. The theory does not clarify the meaning of the term 'quality' and how can it be measured.
3. It also fails to explain why 'quality' alone varies with per capita income and affects trade.
4. The concept of 'representative demand' is loose for it has been precisely defined by Linder.
5. He also does not lay down the conditions that can be expected to influence the volume of trade.
6. It says nothing about which goods will be imported and which exported by any particular country.
7. Linder's theory does not take into account the influence of the demonstration effect on the volume of trade.
8. Even Linder's brief attempt at empirical verification is not satisfactory. Linder's theory is suggestive but it lacks rigorous analysis and empirical verification.

Conclusion. Despite these weaknesses Linder's approach is novel and ingenious which explains the reasons for large volume of trade in manufactures among developed countries. also highlights the facts that the lion's share of the world trade is among the developed

countries with broadly similar per capita incomes rather than between the developed and under-developed countries.

4. POSNER'S IMITATION GAP OR TECHNOLOGICAL GAP THEORY

The Ricardian and Heckscher-Ohlin theories are based on the assumption that technology is the same in all trading countries. As such, they do not analyse the effect of technological change on trade. M.V. Posner¹ in an article in 1961 analysed the effect of technology on trade. Posner regards technological changes as a continuous process which influences the pattern of international trade. A technological innovation in the form of production of a new good in one country leads to the imitation gap and the demand gap in the other country. The extent to which trade will take place between the two countries depends on the net effect of the demand lag and the imitation gap.

¹. "Technical Change and International Trade", *O.E.P.*, No. B, 1961.

ITS ASSUMPTIONS

Posner's theory is based on the following assumptions:

1. There are two countries.
2. There are similar factor endowments in both.
3. Demand conditions are similar in both.
4. Pre-trade factor price ratios are similar in both.
5. Technologies differ in both countries.

EXPLANATION

The imitation gap theory explains the sequence of innovation and imitation as it affects the pattern of trade. When a firm innovates in the form of a new product which becomes profitable in the domestic market, it enjoys a temporary monopoly. As it exports the product to foreign market and has an absolute advantage in this product. After some time, the profits of the innovating firm encourage imitation in the other country. But it will continue to export the product and have a comparative advantage in its production till the importing country learns the new process, change plant, equipment, *etc.* in order to produce it. This is the imitation gap. Imports of the new product in the other country continue during the period of the imitation gap.

According to Posner, the imitation gap has *three* components. The *first* is the 'foreign reactions lag' which is the time taken by the innovating firm to start the production of the new product. The *second* is the 'domestic reaction lag' which is the time taken by other domestic producers to follow suit and establish a hold on the domestic market. The *third* is the 'learning period' which is the time taken by domestic producers to master the technique of producing the new product and selling it in the domestic market. These three components together form the imitation lag. There is also the 'demand lag' which is the time taken by consumers in the importing country to acquire the taste for the new product. Imports of the new product will not continue by the full duration of the imitation lag due to the demand lag. To obtain the period during which its imports will continue, the demand lag must be subtracted from the imitation lag. If producers in the importing country start producing the new product (imitate) quickly and consumers in that country are slow to adopt (demand) the new product, the imitation lag will be shortened and the period of importation of the new product will be reduced. On the contrary, if consumers adopt (demand) the new product quickly and producers are not able to produce it, the imitation lag will be lengthened, and the country will continue to import the new product for a long time. It is only when the imitation lag equals the demand lag that imports of the new product will fully stop. Thus the pattern of trade between the two countries will depend upon the relative strength of these two lags.

Posner's theory is explained in Fig. 3 where time is plotted on the horizontal axis and the trade balance of the innovating country A against the imitating country B is taken on the vertical axis. Upto point t_1 , there is no trade between the two countries, in say good X . At t_1 , A innovates the new product. The demand lag in B will determine the amount of exports of A and thus the slope of t_1B . The imitation

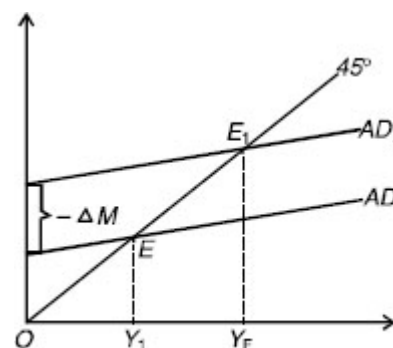


FIG. 3

lag will determine how long country B will import the commodity from A and the extent of A 's exports. If there is no imitation of the commodity in B , country A will continue to export it till exports reach the maximum level B at time t_3 . The period from t_1 to t_3 is the demand lag. If producers in B start producing the new product by time t_3 , the exports of A will decline and may even stop at time t_4 , as shown by the downward arrow from B to t_4 . In this situation, the imitation lag t_3t_4 is shorter than the demand lag. If the imitation lag is longer and producers in B are unable to adopt the innovation of the new commodity till time t_5 , country A will continue to export it to its maximum level B_1 . As B starts producing this commodity, the imitation lag becomes shorter and exports from A continue to decline until they fully stop at time t_6 when the commodity is fully imitated in country B . If producers in B introduce a new innovation in the commodity so that it is better than A 's commodity, B will penetrate A 's market. In this case, A will start importing it from B , as shown by the downward arrow from t_6 to A .

Further, Posner combines the two concepts of innovation and imitation lag into a single concept of 'dynamism'. He defines the dynamism of a country in international trade as a function of the rate at which it innovates (*i.e.*, the number of new products it introduces per unit of time), and the speed with which it imitates foreign innovations. If two trading countries have an equal degree of dynamism, they will have trade without any balance of payments difficulties, and trade leads to all round development as innovations

from each country are quickly imitated in the other. If one trading country has a higher degree of dynamism than the other, the second country will find its balance of trade in deficit because it will be importing more of the new product. It will try to correct the balance of trade by exporting its traditional products at less favourable prices to the first country. The impetus to trade in traditional products is caused by the dynamic factors of innovation and imitation with the importation of the new product from the first country.*_

ITS CRITICISMS

The imitation gap theory of Posner is more realistic than the traditional theories because it analyses the effect of technical changes on the pattern of international trade. But it has certain weaknesses. It fails to answer the following questions:

- (a) What generates innovation in country A, and subsequent innovations? and,
 - (b) What is the competitive pattern of innovations in the two countries?
-

5. VERNON'S PRODUCT CYCLE THEORY

Prof. Raymond Vernon in an article¹ published in 1966 put forth the product cycle hypothesis. It states that the development of a new product moves through a cycle or a series of stages in the course of its development, and its comparative advantage changes as it moves through the cycle. The theory is based on the experience of the US economy.

ITS ASSUMPTIONS

The theory is based on the following assumptions:

1. Firms which develop a new product do so on the basis of some real or imagined monopolistic advantage.
-

* Students may leave this para without loss in continuity.

1. "International Investment and International Trade in the Product Cycle", *Q.J.E.*, 1966.

2. Stimulus to innovate a new product is provided by the need and opportunities of the domestic market.

3. Innovating firm have no information about conditions in foreign markets whether in other advanced countries or in developing countries.

4. Innovating firms in advanced country are exposed to a very different home environment from other advanced industrialised countries.

5. A triggering event, such as the appearance of rival producers, leads to the manufacture of the product for export.

6. New products are initially developed in capital rich countries.

EXPLANATION

Vernon argues that many new products are developed initially in capital-rich countries like United States because of its comparative advantage in R & D. The new products that are likely to develop are consumer products that seem to have a ready domestic market. This is because with high per capita income such countries offer opportunities for the sale of the new products. Further, capital-rich countries induce innovations that are associated with economies of scale. They also prefer a home location to minimize transport costs. Once a new product has been introduced and marketed in the home country, a process starts that affects the country's flow of international trade in a reasonably predictable way in the form of a cycle in the life of the new product.

Vernon suggests the following three stages in the life cycle of a product:

1. New Product Stage. In the first stage, production requires highly skilled labour in the production process. While the product is being developed, costs are high. Given the risk and uncertainty of the new investment, the main consideration for the innovating producer is the existence of a ready domestic market where demand is less elastic for the new product.

2. Maturing Product Stage. In the second stage, there is mass production and distribution of the new product. Costs and prices fall, and the product is exported. The innovating country continues to have a monopoly in producing and exporting the product. Its monopoly depends upon (i) the rate of growth in demand in foreign markets; (ii) the nature of product developed; (iii) the speed with which other countries acquire the new technology; (iv) the effectiveness of patent rights; (v) the extent of scale economies; and (vi) the organisation of industry.

3. Standardised Product Stage. In this stage, the product and manufacturing operations become standardised in the innovating country. Sales fall, elasticity of demand is high and exports fall. This becomes possible when after a lag, other advanced countries start producing the new product, often with the help of subsidiaries set up by producers of the innovating country. As the technology in this product line becomes common and increasingly standardised, the innovating country loses its comparative advantage. Increasing imitation by other countries ultimately makes them net exporters of the product. According to Vernon, when the product becomes standardised, producers in *less developed countries* undersell their competitors in the advanced countries by combining cheap labour with advanced technology borrowed from the innovating firm, and thus enjoy a comparative advantage by exporting the product to the latter countries. As the technological and imitation gaps narrow, so does the product gap, and the comparative advantage of producing the product also changes from one country to the others. This is known as 'catching up product cycle' which every country experiences, when it passes through the sequence from an importer to an exporter of the standardised product.

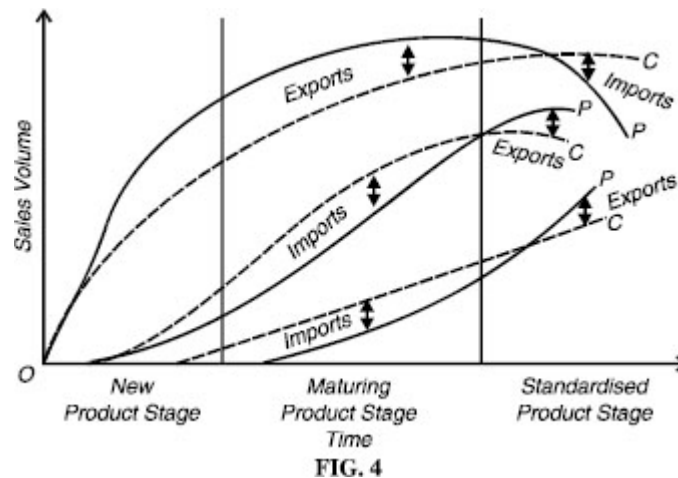


Figure 4 explains the possible international trade patterns in the life cycle of a new product. Time is measured along the horizontal axis and the sales volume on the vertical axis. The figure shows three sets of curves. Thick curves *P* relate to production of the new product and dotted curve *C* relate to its consumption. The uppermost set of curves relates to the innovating country, the middle set to other advanced countries, and the lowest set to the less developed countries. First consider the uppermost set of curves relating to the innovating country. In the first stage, when the new product is introduced, it is consumed in the domestic market, as shown by one curve from the origin *O* till they split into two. From that time onwards, there is mass production which outstrips consumption thereby leading to exports of the new product in the maturing product stage. In the last stage, the product is standardised when other advanced countries also start producing the new product. Consequently, production declines in the innovating country and it even starts importing the product. The middle set of curves shows that other advanced countries having started the production of the new product continue to increase its production up to the maturing product stage and then become net exporters of the product in the standardised product stage. The lowest set of curves relating to less developed countries shows that such countries continue to import the product throughout the three product stages. It is, however, in the maturing product stage that they start its production and become its net exporters very late in the last stage when the product actually becomes 'old' in advanced countries.

ITS CRITICISMS

However, critics have questioned some of the assumptions of this theory.

1. Information about Foreign Markets. It is not correct to assume that innovating firms have no information about conditions in foreign markets. With the development and spread of communication at the global level, firms in advanced countries, especially MNCs, keep in touch with conditions in foreign markets.

2. Home Environment not Different. The assumption that innovation firms in advanced countries are exposed to different home environment from other advanced countries is also not wholly acceptable. No doubt, there are differences among the advanced countries, but such differences are trivial. It is not only the United States but every advanced country has requisite capabilities to innovate and produce a new product these days.

3. Not Essential to be Capital Rich Country. The assumption that new products are initially developed in capital rich countries does not hold true in the present world. Many European and Japanese firms are innovating these days by placing greater emphasis on material-saving and capital-saving objectives rather than on labour-saving.

4. Developing Countries not Late Starters. The theory states that developing countries are late starters in the process of absorbing the innovations of advanced countries. But this is not the case of every developing country. There are countries like India, Mexico, Brazil and Korea that are adapting an innovated product of the parent MNC and are initiating their own product cycle and exporting to other developing countries and even to the developed countries. One such instance is the Suzuki Maruti car.

Critical Appraisal. The product cycle theory is an extension of the technological gap model. It is based on the experience of the United States which being a capital rich economy having skilled labour force innovates and produces new products because of its high average

income and large domestic market. As the new product matures and becomes standardised, the United States loses its comparative advantage. Thus this theory is essentially a short-run theory. It is at the same time dynamic because the other countries start producing and exporting the product as it becomes standardised.

This theory is not in conflict with the theories of comparative advantage and factor proportions because an innovating country possesses relative abundance of scientific and technical personnel as compared with other countries. Further, such a country has a comparative advantage over other countries because it is in a position to produce and export the new product cheaply.

A series of studies of the product life cycle in particular industries separately by G.C. Hufbeaur, Hoffmeyer, and other US economists have revealed that trade started with some innovation in technology leading to a technological gap which ultimately spread through imitation. In the end, comparative advantage shifted away from the innovating industries and settled to rest in countries which became exporters instead of importers of new products.

Despite all this, the product cycle hypothesis continues to provide a guide to firms to innovate new products in all countries of the world.

6. KENEN'S THEORY OF HUMAN CAPITAL

P.B. Kenen¹ in an article in 1965 examined the role of human capital in international trade. He considers human capital instead of physical capital as the main theme of his theory. Human capital is created by investing in the education and training of the labour force. Education, like investment in physical capital, requires time and uses resources. The skills which education and training create last a long time and tend to increase the productivity of the labour force. The wage differentials among types of labour rate are due to differences in education and training. According to Kenen, land and labour are two original factors of production. But they cannot be improved upon

without the application of capital. Kenen regards capital as a homogeneous stock of 'waiting' as in the Heckscher-Ohlin model. Capital enters the production process through its application to land and labour. Education and training imparted to the labour force is the application to capital to labour. Machines are manufactured by combining capital with land or national resources. Thus production increases when improved labour is combined with improved land.

Generally, countries have different production possibilities because of differences in their resource endowments of labour, land, and capital. Even if two countries possess the same resource endowments, they may differ in their production possibilities due to the allocation of available capital between improving labour and land. To prove the point, Kenen cites the case of less developed countries which allocate their limited supplies of capital on improving physical capital rather than human capital. Consequently, their rate of return on physical capital is very low. He, therefore, suggests the application of capital to the labour force in order to raise the rate of return on physical capital.

[1.](#) P.B. Kenen, "Nature, Capital and Trade", *J.P.E.*, October 1965.

Next, Kenen formulates a theory of international trade based on his idea of the relation between capital and production.

ITS ASSUMPTIONS

His theory is based on the following assumptions: (a) unimproved labour and unimproved land are uniform within and between two countries; (b) factors of production are mobile within countries; (c) markets are competitive; (d) demand conditions are similar; and (e) production functions are identical in the two countries.

EXPLANATION

Given these assumptions, the opening of trade between two countries will bring about equalisation of product prices and of the

prices of services from improved labour and improved land. As the rate of interest is not the price of a factor service, it will not necessarily be equalised between them. So far as the terms of trade are concerned, they will be predicted by the net factor ratios in the two countries, the factor being the quantities of improved labour and improved land. The net factor ratios depend upon the initial endowments of the unimproved factors upon the supply of capital, and upon the distribution of capital between the two original factors for improving them. Kenen has explained the Leontief paradox in terms of his theory. Using a per cent rate of discount, Kenen estimates the value of human capital involved in US exports and import-competing products by capitalising the extra income of skilled workers over unskilled workers. He then adds the estimates of human capital to Leontief's physical capital estimates and finds that the Leontief paradox is reversed. Thus Kenen comes to the conclusion that the US export goods requiring skilled labour and import goods requiring relatively unskilled labour. On this basis, it is found that the US is abundant in human capital and it exports capital intensive products.

Kenen's theory is an important contribution to the analysis of international trade theory. It breaks new ground by incorporating the value of human capital in the production process which affects the pattern of international trade.

7. EMMANUEL ' S THEORY OF UNEQUAL EXCHANGE

Emmanuel in his book *Unequal Exchange: A Study in the Imperialism of Trade* (1970) has propounded the theory of unequal exchange in international trade between the centre (developed countries-DCs) and the periphery (less developed countries-LDCs) which has led to the exploitation of the latter by the former.

Emmanuel's theory is based on Marx's theory of 'prices of production' for the determination of international prices and technological changes in production. He believes that the main

reason for economic inequality between DCs and LDCs is the differences in techniques of production and differences in wages which lead to unequal exchange in trade. The product of an hour's labour in a DC is exchanged for the product of more labour hours of an LDC. This unequal exchange brings gain to DC and loss to LDC.

Its Assumptions. Emmanuel's theory is based on the following assumptions.

1. There are two countries: developed country *A* and *B* an LDC.
2. There are two different goods *X* and *Y* which are exchanged.
3. Capital is mobile internationally.
4. Labour is not mobile between countries.
5. Prices are high in DC and lower in LDC.
6. Rates of profit are equal in the two countries.
7. Wages are higher in DC and lower in LDC
8. Wages are given independent of prices.
9. Goods are freely traded.
10. Transport costs are zero.
11. There is a predetermined pattern of international specialisation so that each country specialises in a particular commodity.

Explanation of the Theory. Given these assumptions, Emmanuel believes that LDCs have failed to take advantage of the technological changes for their development. On the others hand, DCs have raised the 'organic composition of capital' through labour-saving technologies. This has led to unequal exchange in trade between them. But the main reason for unequal exchange is the difference between the wage rates of the centre (DCs) and the

periphery (LDCs). In Emmanuel's words, "Inequality of wages, as such, all other things being equal, is alone the cause of the inequality of exchange."

According to Emmanuel, unequal exchange occurs when two unequal countries produce two different commodities so that they are not in direct competition with each other. Since wages are low in LDC, the cost of production of the commodity is also low and so is its price. On the other hand, wages being high in DC, the cost of production of the commodity is high and so is its price. Thus the commodity of LDC being cheaper and that of DC being dearer, there is unequal exchange in trade between the two. The reason is that the former country (LDC) exports more of its commodity in order to get a given quantity of imports from the latter country (DC). Let us illustrate the theory in terms of a numerical example. There are two countries A and B, country A producing good X and B producing good Y. Suppose the wage rate in the developed country A doubles so that it buys 4 units of each commodity while the wage rate in the less developed country B buys 2 units of each. The rate of profit being the same in both the countries, the prices in the two countries are based on a percentage of profit on unit labour costs $(1 + r)$. Thus given the rate of profit, the price equations in the two countries are:

$$P_{Ax} = (1 + r) (4P_x + 4P_y)$$

$$P_{By} = (1 + r) (2P_x + 2P_y)$$

Where P_A and P_B are the two countries, P_x is the price of good X and P_y is the price of good Y. The relative prices of the countries are $P_{Ax} = 2P_{By}$ ^{*}. The less developed low-wage country B exports 2 units of the export good Y in order to buy 1 unit of its import good X. Its terms of trade have worsened by 50 per cent. Thus there is unequal exchange whereby the developed country A gains at the expense of the less developed country.

^{*} It can be worked out thus

$$P_{Ax} = (1 + z) (4P_x + 4P_y)$$

$$P_{By} = (1 + z) (2P_x + 4P_y)$$

$$\frac{P_{Ax}}{P_{By}} = \frac{4(P_x + P_y)}{2(P_x + P_x)}$$

$$2P_{Ax} = 4P_{By}$$

$$P_{Ax} = 2P_{By}$$

The theory of unequal exchange is explained in Figure 5 where prices in the two countries are taken on the vertical axis and the terms of trade on the horizontal axis. The price of commodity Y in less developed country B is taken as $P_B = 1$ which is shown as the horizontal line $P_B P_B$.

The price of commodity X in country A is shown by the curve so that the equilibrium terms of trade is given by OT_1 . As increase in wages and costs leads to the rise in price in country A which shifts its price curve to the left as As a result, the terms of trade of country B are reduced to OT_2 . Unequal exchange is measured as the difference between the actual terms of trade, OT_1 , and the changed terms of trade, OT_2 . Thus the terms of trade of country B have worsened by $T_1 T_2$.

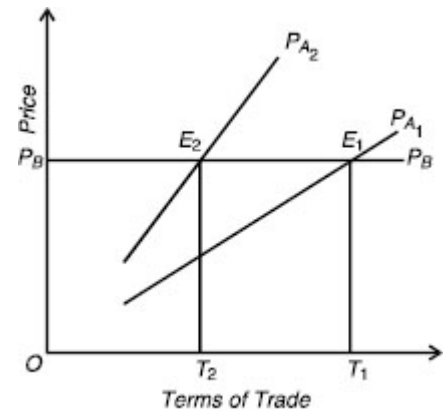


FIG. 5

Its Criticisms. Emmanuel's theory of unequal exchange has been severely criticised by economists on the following grounds :

1. The theory assumes that unequal exchange is the result of wage differences between DCs and LDCs. But it does not explain many factors that affect wage differences between the two types of countries.
2. Even if it is accepted that wage differences lead to unequal exchange, there can be unequal exchange between DCs because differences in wages are also found among them. So the theory breaks down as it is equally applicable on DCs and not on LDCs alone.

3. If wage differences are in money wages and they are due to differences in labour productivity, the terms of trade of LDCs may not be very bad. If differences in money wages equal differences in productivity in LDCs and DCs, there would be no differences in costs and prices per unit of output. It is only when real wages do not rise as fast as productivity in LDCs as compared to DCs, that the terms of trade of LDCs become unfavourable.

4. The theory assumes that the rate of profit is equal in LDCs and DCs. This is an unrealistic assumption because the rate of profit in DCs is always higher because of the capitalist mode of production. Since there is unequal exchange, according to this theory, the rate of profit is bound to increase with the exploitation of LDCs.

5. According to this theory, unequal exchange in trade leads to the exploitation of LDCs by DCs. Economists do not agree with this view of Emmanuel, because unequal exchange has not prevented the growth of LDCs.

6. The theory assumes that capital is mobile within countries. If this is true, then wage differences will be eliminated with the movement of capital from the developed to the less developed country. Thus the theory breaks down.

8. INTRA-INDUSTRY TRADE

The classical, neo-classical, Heckscher-Ohlin, Samuelson and other models explain inter-industry trade between two countries. Inter-industry international trade refers to a situation where the commodity of one industry is exchanged for the commodity of a *different* industry. For instance, Indian rice is traded for German machinery. Inter-industry international trade is based on the assumption of perfect competition. On the other hand, in intra-industry international trade is the trade within an industry in differentiated products which are similar but not identical. For example, German cars are traded for French cars, and so are computers, soaps, shoes, books and

innumerable other products are traded between nations. With product differentiation when countries with substantial cost differences produce and exchange all varieties of different products, it is inter-industry trade. But countries without substantial cost differences specialise at the without industry level and trade, it is intra-industry trade. The level of inter-industry trade is usually measured by the following index:

$$B_j = 1 - \frac{|X_j - M_j|}{(X_j + M_j)}$$

where B_j is the trade balance of industry j of a country, X_j is the value or volume of its exports and M_j is the value or volume of its imports. When this index B_j is zero, trade comprises either exports or imports only (either $X_j = 0$) or $M_j = 0$). There is inter-industry trade and no intraindustry is taking place. When $B_j = 1$, exports are matched by imports and there is perfectly matching intra-industry trade.

Intra-industry trade is due to specialisation and increased division of labour which is dependent on the size of the market. With rapid economic growth and globalisation of the world economy, intra-industry trade has spread in intermediate products and finished products. It has also spread as border trade due to high transport costs and as seasonal trade due to high storage costs of fruits and vegetables between countries.

Intra-industry trade takes place because domestic and foreign firms that make identical varieties of the same product will invade each other's national market. When two firms in two countries have monopoly in the production of a similar product, the opening of trade between them leads to competition which will reduce prices and profits of the two firms. As a result, the monopoly firms lose but consumers gain in the two countries.

When two countries are producing differentiated products and their markets are characterised by monopolistic competition, intra-industry trade follows with the opening of trade between them. First, such trade makes available large varieties of products in the two

countries. With the expansion of trade, producers are able to reap the benefits of economies of scale and thus reduce their costs and prices of products. As a result, some producers may stop production and leave the industry. Thus both countries benefit from trade when cheap and quality products are available. Second, with product differentiation a small country can undersell a large country through economies of scale and specialisation and thus gain from international Trade. Third, intra-industry trade increases the volume of trade between two countries of similar size and similar factor endowments. Last but not the least, trade based on differentiated products leads to increase in the production of parts and components and their assembling in different countries in order to minimise their costs of production. This has led to sharp increase in trade in parts and components mostly by multinational corporations.

Thus according to Bo Sodersten, “Explanations of intra-industry trade typically involve all or some product differentiation, economies of scale, monopolistic competition or oligopolistic behaviour, the workings of multinational companies and so on”.¹

EXERCISES

1. Critically explain Kravis’s availability theory.
2. What is novel in Linder’s Volume of Trade Theory? Explain this theory.
3. Explain the Imitation Gap theory of international trade.
4. Explain the Product Cycle theory of international trade.
5. Explain the role of human capital in international trade.
6. Discuss Emmanuel’s Theory of Unequal Exchange in Trade.

¹ Bo Sodersten and Geoffrey Reed, *International Economics*, 3/e. 1994. A number of intra-industry trade models have been developed by H.G. Grabrel

and D.J. Lloyd, *Intra-Industry Trade*, 1975; D. Greenway and C.R. Milner, *The Economics of Intra-Industry Trade*, 1986; H.Kurzkowski, (ed.), *Monopolistic Competition in International Trade*, 1984.



ECONOMIC GROWTH AND INTERNATIONAL TRADE

1. INTRODUCTION

The preceding chapters on the pure theory of international trade have been concerned with given conditions of supply relating to factor endowments and technology. But these factors do not remain constant over the long-run. When they change, they bring about the growth of an economy. Economic growth may take the form of either factor accumulation or technical progress or both. This chapter analyses the effects of factor accumulation or growth on production, consumption and terms of trade.

2. EFFECTS OF GROWTH ON TRADE

Economic Growth has production and consumption effects on international trade.

PRODUCTION EFFECTS OF GROWTH

The production effects of factor accumulation or growth emphasise the behaviour of domestic production of exportables. An increased production of exportables tends to increase the volume of trade, and an increased production of importables tends to decrease the

volume of trade. Johnson¹ has classified the production effects of factor growth into five types. Growth is *neutral* if it increases the production of exportable and importable goods in the same proportion. It is *anti-trade-biased* or *import-biased* if it increases the production of importables in greater proportion than the production of exportables in greater proportion than the production of exportables. It is *pro-trade-biased* or *export-biased* or *ultra-export-biased* if growth reduces the domestic production of importables. It is *ultra-pro-trade-biased* or *ultra-export-biased* if growth reduces the domestic production of importables. Finally, it is *ultra-anti-trade-biased* or *ultra-import-biased* if it reduces the production of exportables. “In formal terms, it will be ‘pro-trade-biased’, ‘neutral’, or ‘anti-trade-biased’, according as the output-elasticity of supply of importable goods is less than, equal to or greater than unity. Formally, ultra-pro-trade bias means a negative output elasticity of supply of importables, and ultra-anti-trade bias a negative output elasticity of supply of exportables.”

¹ H.G. Johnson, *Money, Trade and Economic Growth*, 2/e. 1964.

ASSUMPTIONS

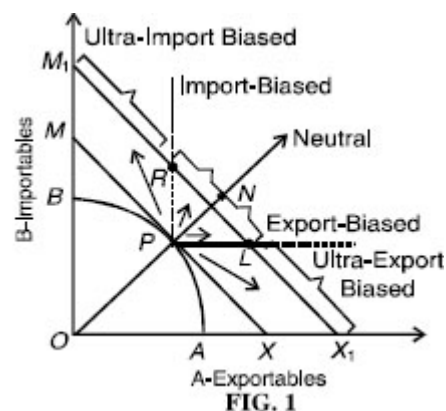
This analysis is based on the following assumptions :

1. There are two countries *A* and *B*.
2. Country *A* is the domestic country which experiences economic growth.
3. There are two factors of production—labour and capital.
4. The quantities of labour and capital increase with growth.
5. There are two commodities *X* and *Y*.
6. Commodity *X* is capital-intensive and commodity *Y* is labour-intensive.

7. Commodity X is an exportable and commodity Y is an importable.
8. International terms of trade are constant.
9. There is no change in technology.
10. There is incomplete specialisation.

EXPLANATION

Given these assumptions, the five production effects of growth are illustrated in Fig. 1. Exportables— A and capital are measured along the horizontal axis and importables— B and labour along the vertical axis. In the pre-growth situations BA is the production possibility curve and MX the terms of trade line which is tangent to the former at the production point P . Economic growth resulting from labour or capital growth or from both leads to an outward shift of the production possibility curve. Such situations have not been shown to simplify the diagram. Only production points have been depicted on the international terms of trade line M_1X_1 in the post-growth situation. It is presumed that the line M_1X_1 is tangent to the production possibility curve which determines each production point. The terms of trade are constant because the line M_1X_1 is parallel to the MX line.



As a consequence of factor growth when the production point P shifts to N the growth is *neutral* because the proportions of exportables and importables produced are unchanged. It is a case when both capital and labour grow proportionately and the production possibility curve shifts outward in a parallel movement to BA .

If the new production point is between N and L , the growth is *export-biased* (or pro-trade biased). This is the result of proportionately greater use of capital in the production of exportables.

If the new production point lies in the range L and X_1 , the growth is *ultra-export-biased* (or ultrapro-trade-biased). This results from an increase in the supply of capital without any increase in the supply of labour.

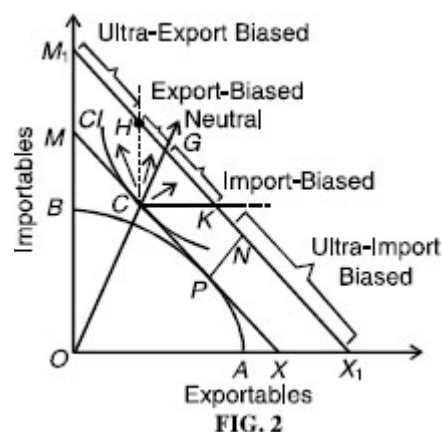
On the other hand, a movement above the neutral point N shows import-biased growth. If the new production point falls between N and R , the growth is *import-biased* (or anti-trade-biased).

This is the result of proportionately greater use of labour in the production of importables. If the new production point lies in the range RM_1 , the growth is *ultra-import-biased* (or ultra-anti-tradebiased). This is due to an increase in the supply of labour without any increase in the supply of capital.

CONSUMPTION EFFECTS OF GROWTH

The consumption effects of factor growth emphasise the behaviour of domestic consumption of importables. An increased consumption of importables tends to increase the volume of trade, and an increased consumption of exportables tends to decrease the volume of trade. Like the production effects, Johnson has classified the consumption effects of factor growth into five types. On the consumption

side, growth is *neutral* if it increases the total demand for importables in the same proportion as the increase in the demand for exportables. Growth is *anti-trade-biased* or *import-biased* if it increases the demand for importables in lesser proportion than it increases demand for exportables. It is *pro-trade-biased* (or export-biased) if it increases the demand for importables in greater



proportion than it increases the demand for exportables. It is *ultra-pro-trade-biased* (or ultra-export-biased) if it increases the demand for importables absolutely, and ultra-anti-trade-biased (or ultra-import-biased) if it decreases the demand for importables absolutely. Formally, it can be related to the output-elasticity of demand for importables. Growth is pro-trade-biased (or export-biased), neutral or anti-trade-biased (or import-biased), according as the output-elasticity of demand for importables is greater than, equal to or less than unity. Ultra-anti-trade-biased (ultra-import-biased), if this elasticity is negative, and ultra-pro-trade-biased (or ultra-export-biased) if the output elasticity of demand for *exportables* is negative.

An increase of factor supplies will increase real income which will cause some change in the relative quantities of importables and exportables consumed in the domestic market. Assuming constant terms of trade, constant tastes, no change in income distribution, the possible consumption effects of growth are illustrated in Fig. 2.

In the pre-growth situation, the economy produces at point P and consumes at point C where the terms of trade line MX is tangent to the community indifference curve CI . In the post-growth situation, the economy produces at point N and the consumption point can be anywhere on the new consumption-possibility frontier M_1X_1 . The line MX is parallel to M_1X_1 , showing constant terms of trade. It is presumed that at such points as K , G and H , a different community indifference curve touches the line M_1X_1 .

If the new consumption point lies at G on the income consumption curve OCG passing through the origin, the consumption effect is *neutral*. If C moves to the region GH , the consumption effect is export-biased. If C moves to the region HM_1 , the consumption effect is ultra-export-biased. On the other hand, if C moves to the region GK , the consumption effect is import-biased, and in the region KX_1 ultra-import-biased.

“If growth is due to some other cause than population change, income per head will rise, and the type of growth will depend on the

average income-elasticity of demand for imports : if imports are luxury goods, growth will be pro-trade biased, if they are necessary goods, growth will be anti-trade biased; if imports are inferior goods growth will be ultra-anti-trade-biased and if exports are inferior goods growth will be ultra-pro-trade-biased.”

COMBINED CONSUMPTION AND PRODUCTION EFFECTS OF GROWTH

The combined production and consumption effects of growth (or the total effects of growth) are explained in terms of a shift in the growing country's offer curve. This is illustrated in Fig. 3. Country A experiences growth whose offer curve before growth is OA. The offer curve of the other country B with no growth is not shown to simplify the diagram. The slope of the ray OT shows constant international terms of trade. When growth is *neutral* on both the production and consumption sides, the total effect of growth is neutral. This is shown by the outward shift of the offer curve to the right as ON. This curve intersects the terms of trade line OT at E₀. This shows an increased volume of trade. The total effect of growth is *export-biased* (or pro-tradebiased) if (a) both the production and consumption effects are export-biased; or (b) the production effect is export-biased and the consumption effect is neutral; or (c) the production effect is neutral and the consumption effect is export-biased. This is shown by the outward shift of the offer curve to OX which intersects the terms of trade line at E₁. This shows increase in the volume of trade because there is pro-trade-bias on both the production and consumption sides or on the production side or on the consumption side.

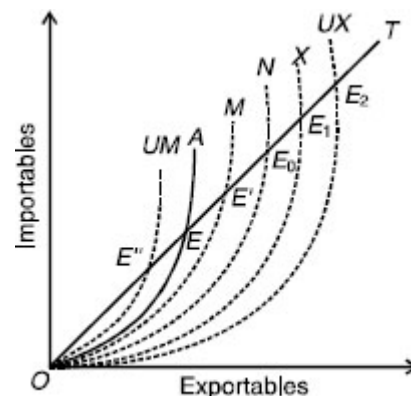


FIG. 3

The total effect of growth is *import-biased* (or anti-trade-biased) if (a) both the production and consumption effects are import-biased : or (b) the production effect is import-biased and the consumption effect is neutral; or (c) the production effect is neutral and the consumption effect is import-biased. This is shown by inward shift of the offer

The total effect of growth is *import-biased* (or anti-trade-biased) if (a) both the production and consumption effects are import-biased : or (b) the production effect is import-biased and the consumption effect is neutral; or (c) the production effect is neutral and the consumption effect is import-biased. This is shown by inward shift of the offer

curve to OM which intersects the terms of trade line at E' . This shows decrease in the volume of trade because there is anti-trade-bias on both the production and consumption sides or on the production side or on the consumption side.

An *ultra-import-bias* (or ultra-anti-trade-bias) on the production side leads to ultra-import-bias on balance. It means that the domestic production of importables increases more than total output and also more than the demand for importables. This leads to an absolute reduction of importables and exportables thereby shrinking the volume of trade. This is shown by the inward shift of the offer curve to OUM when it intersects the terms of trade line at E'' .

Similarly, an *ultra-export-bias* (or ultra-pro-trade-bias) on the production side leads to ultra-export-bias on balance. It means that the production of exportables increases more than under export-bias and the demand for importables increases by more than the total output. This leads to an absolute increase in the volume of trade. This is shown by the outward shift of the offer curve of OUX when it intersects the terms of trade line OT at E_2 .

3. EFFECT OF GROWTH ON TERMS OF TRADE

To analyse the effect of growth on the terms of trade of a country, the following *assumptions* are made :

- (1) Only the domestic country experiences growth.
- (2) The factor which leads to growth is not taken into account.
- (3) International terms of trade are constant.
- (4) Commodity terms of trade are taken.

Given the above assumptions, it is the growing country's demand for imports at constant terms of trade that determines its terms of trade. When the demand for imports increases, the terms of trade of the

growing country deteriorate (or are unfavourable). In case the demand for imports decreases after growth, its terms of trade improve (or become favourable). If the demand for imports remains unchanged in the post-growth situation, its terms of trade remains unchanged (or are neutral). These three possibilities are illustrated in Fig. 4 (A), (B) and (C). In Panel (A), BA is the domestic production possibility curve. Growth is shown by its outward shift to B_1A_1 . In the *pre-growth* situation TT is the TOT (terms of trade) line which is tangent to the BA curve at point P and the CI (community indifference) curve at point C . As a result of growth, the production point shifts from P to P_1 on the B_1A_1 curve and the consumption point from C to C_1 on the CI_1 curve which are points of tangency with the constant terms of trade line T_1T_1 parallel to TT . In Panel (A), PP_1 is parallel to CC_1 which means that the terms of trade of the growing country are constant. This is because with the increase in the general expansion of output of X and Y commodities, the share of domestic exportables is of the same degree as the share in the general expansion of consumption.

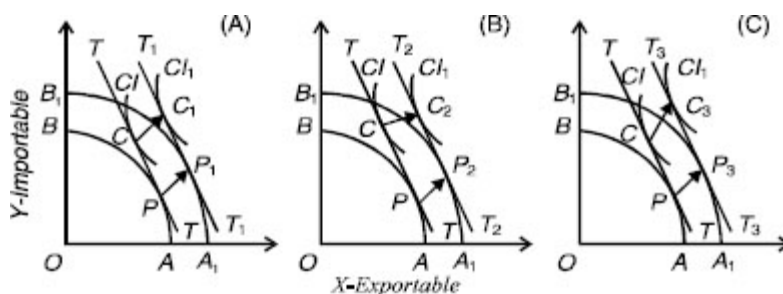


FIG. 4

If the consumption point C moves downwards to the right to C_2 in the post-growth situation on the B_1A_1 curve and the production points P and P_2 , as shown in Panel (B), the terms of trade move in favour of the growing country. This is because the output of the exportable commodity X increases more than the domestic demand for it and exports increase more than the domestic demand for the importable commodity Y .

If, on the other hand, the consumption point C moves to C_3 and the production point P to P_3 on the B_1A_1 curve, in the post-growth situation, as shown in Panel (C), the terms of trade will move against the growing country. This is because the output of the exportable commodity X expands by less than the domestic demand for it and the demand for the importable commodity Y rises more than the exportable X .

4. EFFECTS OF GROWTH ON PRODUCTION, TRADE, WELFARE AND TERMS OF TRADE OF A SMALL COUNTRY

To analyse the effects of growth on trade and welfare of a small country, we assume that (1) only one factor labour grows; (2) there are two commodities X and Y ; (3) growth of labour increases the production of labour-intensive commodity X and decreases the production of capital-intensive commodity Y ; and (4) the international terms of trade remain constant for this country.

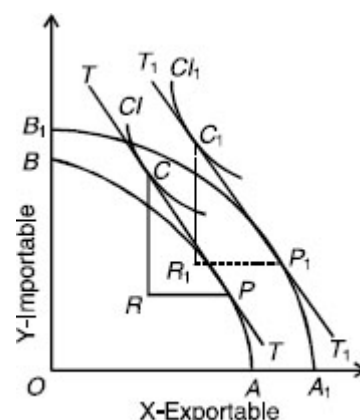


FIG. 5

In the *pre-growth* situation in Fig. 5, the production possibility curve is BA and P is the production point where the terms of trade line TT is tangent to it. C is the consumption point on the CI curve. CRP is the trade triangle whereby the country exports RP of X and imports RC of Y commodity. After the growth of labour, the production possibility curve shifts outward to B_1A_1 . Note that the shift along the horizontal axis AA_1 is greater than BB_1 on the vertical axis representing capital even if there has been no increase in the growth of capital. This is because labour is also used in the production of Y commodity. The new production point is P_1 and the consumption

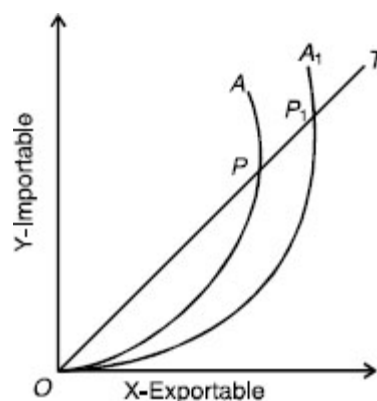


FIG. 6

point is C_1 where the constant T_1T_1 line is *tangential*. Point P_1 shows higher output of both X and Y commodities. The volume of trade also increases after labour growth at point P_1 because the new trade triangle $C_1R_1P_1$ is bigger than the pre-growth triangle CRP . Country's exports increase from RP to R_1P_1 and imports from RC to R_1C_1 . The *welfare* of the country also increases because the new consumption point C_1 is on the higher curve CI_1 than the original point C on the CI curve. However, when there is labour growth in the country without capital growth the per capita availability of capital decreases. As a result, less capital is available per labour which reduces the per capita productivity of capital. Therefore, the availability of commodities per person in the country is reduced which is likely to reduce the welfare of the commodity despite increase in the volume of output and trade.

As the growing country is small, it trades at constant international terms of trade even after growth because it is not in a position to influence international terms of trade. The straight line OT in Fig. 6 shows constant terms of trade where the pre-growth trade point is P and the post growth point is P_1 in country A . Even at constant terms of trade, the country exports and imports more quantities of X and Y commodities after growth, as point P_1 is above P on the OT line.

5. EFFECTS OF GROWTH ON PRODUCTION, TRADE AND WELFARE OF A LARGE COUNTRY

Factor growth affects production, volume of trade and welfare of a large country in different ways than that of a small country.

Factor growth in a large country generates two types of effects : (1) wealth effect, and (2) terms of trade (TOT) effect. The wealth effect is the change in per worker output due to factor growth. It may be positive, negative or zero. It is *positive* when per worker output increases due to factor growth. It is *negative* when per worker output decreases with factor growth and is *zero* when per worker output

remains unchanged with factor growth. Thus, a positive wealth effect increases a country's welfare, a negative wealth effect reduces its welfare, and a zero or neutral wealth effect does not affect the community welfare.

The *TOT* effect is related to the effect of factor growth on the volume of trade and relative commodity prices of the traded goods. The *TOT* effect may be favourable, unfavourable or neutral. The *TOT* effect is *positive* when factor growth changes the relative commodity prices in such a way that the country exports less exportables in exchange for a given quantity of importables. The *TOT* effect is *unfavourable* when factor growth changes the relative commodity prices in such a way that the country exports more exportables in exchange for a given quantity of importables. The *TOT* effect is *neutral* when factor growth changes the relative commodity prices in such a way that the quantity of exportables equals the quantity of importables.

The welfare effect of factor growth is the sum of wealth effect and *TOT* effect. If factor growth and output lead to a positive wealth effect and improvement in *TOT*, welfare increases. If they lead to negative wealth effect and unfavourable *TOT* effect, welfare decreases. In case of zero wealth effect and neutral *TOT*, the welfare effect remains unchanged. But an opposite movement of wealth effect and *TOT* effect may increase, decrease or remain the same, depending on their relative magnitudes.

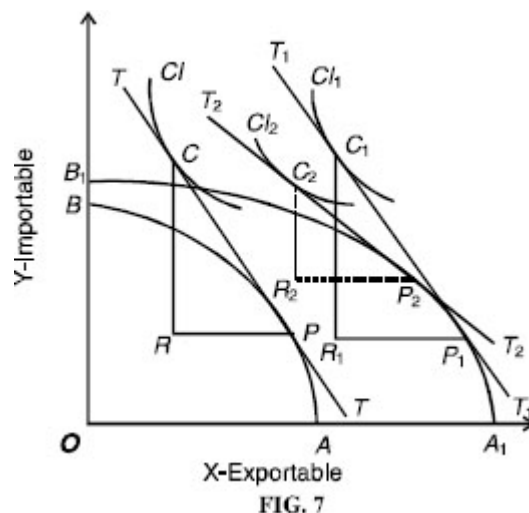
It may also be noted that the volume of trade after growth is the sum of production effect and consumption effect.

EFFECTS OF FACTOR GROWTH

To analyse the effects of factor growth on production, volume of trade, and welfare, it is *assumed* that : (a) there is one large country which trades with the rest of the world; (b) it produces two commodities *X* and *Y* ; (c) *X* is labour-intensive and *Y* is capital-intensive; (d) *X* is an exportable and *Y* is an importable commodity; (e) there are two factors—labour and capital; and (f) the supply of labour increases and that of capital remains unchanged.

Given these assumptions, the effect of labour growth is on production, volume of trade and welfare in a large country is illustrated in Fig. 7.

In the *pre-growth* situation BA is the production possibility curve and P is the production point where the international terms of trade TT is tangential. C is the consumption point on the CI curve. CRP is the trade triangle, which shows the volume of trade, the combination of production and consumption effects. Country A exports RP of X and imports RC of Y . After labour growth, the new production possibility curve is B_1A_1 . The difference BB_1 on the vertical axis implies that labour is also used in the production of capital intensive commodity Y . The new production point is P_1 and consumption point is C_1 where the constant terms of trade line T_1T_1 (parallel to TT) is tangential. Point P_1 shows greater volume of trade after labour growth, as shown by the bigger trade triangles $C_1R_1P_1$. Both the production effect and consumption effect are positive.



But the *wealth effect* is *negative* because the increase in labour supply by AA_1 raises the production of X -commodity proportionately by a lesser amount, R_1P_1 than AA_1 . It means that per capita output has decreased with increase in labour supply. Moreover, there being little increase in the supply of capital, each worker works with less capital. This further reduces per worker output. The *terms of trade* effect of the large country is also *unfavourable* because with increase in labour supply, the production of labour-intensive commodity X increases. Consequently, its price falls. On the other hand, to produce more of X some capital is transferred from the capital-intensive commodity Y to industry X . This reduces the production of Y which raises its price. Since X is an exportable commodity whose price falls and Y is an importable commodity, whose price rises, the new terms of trade line is T_2T_2 . It is tangential to

the B_1A_1 curve at P_2 and to the Cl_2 curve at C_2 . These points give $C_2R_2P_2$ as the new trade triangle. The country now exports R_2P_2 of X and imports R_2C_2 of Y . Since the country gets less units of Y in exchange for one unit of X , $R_2C_2 < R_2P_2$, the terms of trade have deteriorated. It means a *negative* terms of trade effect.

The terms of trade effect is also shown separately in Fig. 8 where OB is the offer curve of B (other country) and OA of the home country A . At the terms of trade T_1 corresponding to T_1T_1 in Fig. 7, A offers less X in exchange for more Y . With change in the terms of trade to T_2 corresponding to T_2T_2 in Fig. 7, A gets less units of Y in exchange for one unit of X , i.e. $Y_1Y_2 < X_1X_2$ which shows that the terms of trade have deteriorated.

Welfare Effect. The welfare effect of factor growth is the sum of its wealth effect and *TOT* effect. We have analysed above that both the wealth effect and the *TOT* effect of labour growth are negative. Therefore, the welfare effect is also negative. Fig. 7 shows that with the change in the relative prices of X and Y after labour growth, at the price line T_2T_2 , the country produces at point P_2 which leads to a lower trade triangle. The country produces

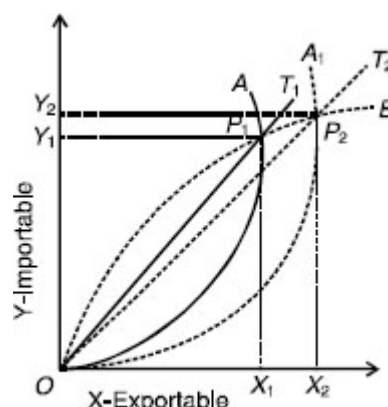


FIG. 8

and consumes less than at points P_1 and C_1 respectively and the Cl_2 curve is also below the Cl_1 curve. This means that the welfare effect of labour growth is negative in the case of a large country.

The effects of capital growth will be opposite to the above analysis.

6. IMMISERISING GROWTH

The theory of immiserising growth relates to deterioration in the terms of trade of the country experiencing growth. Edgeworth was the first economist to suggest the possibility that economic growth

may lead to the worsening of the terms of trade of the growing country to such a large extent that the gain in output resulting from growth may be wiped out by the adverse terms of trade. Jagdish Bhagwati calls this phenomenon “immiserising growth.”² In his words, “Economic expansion increases *output* which, however, might lead to a sufficient deterioration in the terms of trade to offset the beneficial effect of expansion and reduce the real income of the growing country.”

ASSUMPTIONS

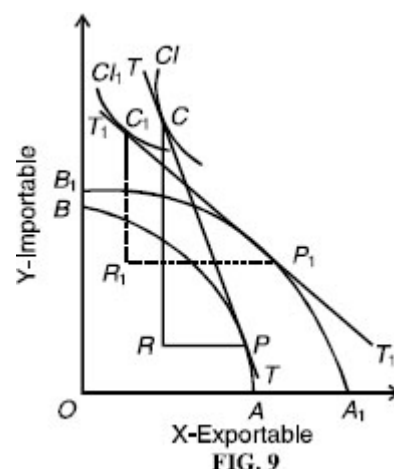
The theory of immiserising growth assumes that :

- (1) There are two countries *A* and *B*.
- (2) Country *A* is the domestic country which experiences economic growth.
- (3) There are two commodities *X* and *Y*.
- (4) Commodity *X* is an exportable and commodity *Y* is an importable.
- (5) There is full employment of resources.
- (6) There is mobility of resources between different countries.
- (7) There is neutral technical progress.
- (8) Growth takes place in the abundant factor labour.

EXPLANATION

Given these assumptions, the case of immiserising growth is illustrated in Fig. 9. *BA* is the production possibility curve in the pre-growth situation. The country is producing at production point *P* where the terms of trade line *TT* is tangent to the *BA* curve, and consuming at point *C*, where the terms of trade line is tangent to the commodity indifference curve *CI*. The country imports *CR* of commodity *Y* and exports *RP* of commodity *X*. Suppose economic

growth occurs which pushes its production possibility curve outwards to B_1A_1 . But the terms of trade deteriorate to offset the gain from growth so that the relevant price (or terms of trade) line is T_1T_1 which is tangent to the production possibility curve B_1A_1 at point P_1 and to the community indifference curve Cl_1 at point C_1 . As a result of growth, the country is worse off than in the pre-growth situation by dropping to a lower community indifference curve Cl_1 from Cl . Consequently, the consumption of importables is reduced from CR to C_1R_1 and the production of exportables is increased from RP to R_1P_1 .



2. J. Bhagwati, "Immiserising Growth : A Geometrical Note," *RES*, June 1958.

NECESSARY CONDITIONS FOR IMMISERISING GROWTH

According to Bhagwati, the following are the necessary conditions for immiserising growth to occur :

- (1) The country's growth is biased in favour of its export sector.
- (2) The growing country is large in the world market so that increase in the supply of its exportables affects the world trade.
- (3) The foreign demand for the country's exportables is inelastic.
- (4) The demand for importables increases with growth.
- (5) There is free trade in the world market without any tariffs or price distortions. Thus the theory of immiserising growth is applicable to those developing countries which are heavily dependent on world trade, are large, and produce a large portion of the world market of a primary commodity whose demand is inelastic. Brazil is a case in point where a bumper coffee crop bids down the world price of

coffee so that Brazil's terms of trade worsen and the country experiences the immiserising-growth phenomenon. So the theory of immiserisation growth highlights the fact that the worsening of the terms of trade outweigh the gains from a large volume of production to such an extent that welfare is decreased.

Johnson regards the theory of immiserising growth as a *curiosum* because with the expansion in output and exports, the welfare of the society declines in a growing country.

The remedy to this problem for developing countries is industrialisation by import substitution. They should produce industrial goods with high prices and high income elasticity of demand, either for export or for domestic market.

EXERCISES

1. Discuss the effects of economic growth on international trade.
2. Explain Immiserising Growth. What conditions are essential for producing the case of immiserising growth?
3. Distinguish between export-biased technological innovations and discuss the effects of the former on terms of trade, assuming all other things to remain unchanged.
4. Explain the effects of economic growth on terms of trade.
5. Discuss the effects of factor growth on production, trade and terms of trade in the case of a large country.
6. Explain the effects of factor growth on terms of trade of a small country.



TECHNICAL PROGRESS AND INTERNATIONAL TRADE

1. MEANING OF TECHNICAL PROGRESS

Technical progress or change consists of discovering new methods of production, developing new products and introducing new techniques of marketing, management and organisation. Technical progress is synonymous with a change in the production function. When there is technical progress, it leads to an increase in the productivity of labour and capital, assuming only two inputs. This is represented diagrammatically by a shift towards the origin and even a change in the slope of the isoquant. This signifies that more output can be produced either with the same inputs or with fewer inputs.

2. CLASSIFICATION OF TECHNICAL PROGRESS

Prof. John Hicks¹ was the first economist to classify technical progress as neutral, labour-saving and capital-saving. A technical change is said to be neutral when it is neither capital-saving nor labour-saving. According to Hicks, technical progress is neutral when it raises the marginal productivities of labour and capital in the same proportion, at the pre-technical change capital-labour ratio. Technical progress is *labour-saving* (or capital-using) if it raises the marginal productivity of capital relative to that of labour at constant relative

factor prices. Technical progress is *capital-saving* (or labour-using) if it raises the marginal productivity of labour relatively to capital, at constant relative factor prices.

3. EFFECTS OF TECHNICAL PROGRESS ON TRADE

The effects of neutral, capital-saving and labour-saving technical progress on the rewards of factors, output and terms of trade are discussed below.

ASSUMPTIONS

This analysis is based on the following assumptions :

(1) The economy experiences economic expansion due to technical progress.

(2) It produces two commodities *X* and *Y*.

[1.](#) J.R. Hicks, *The Theory of Wages*, 1932.

(3) Commodity *X* is labour-intensive and commodity *Y* is capital-intensive.

(4) The production functions for both commodities are homogeneous of the first degree.

(5) Output levels of each commodity are represented by their respective isoquants which represent equilibrium exchange ratio between the two commodities.

(6) Isoquants cut only once.

(7) Factor supplies are unchanged.

(8) There is perfect competition.

(9) There is full factor mobility.

EFFECTS OF NEUTRAL TECHNICAL PROGRESS

Technical progress is neutral when it raises the marginal productivities (*MPs*) of labour and capital in the same proportion. The effects of neutral technical progress on the rewards of factors, on output and on terms of trade of capital-intensive export industry *Y* of a country are explained below.

Start from the pre-technical progress (or innovation) situation in Fig. 1 where *BA* represents the relative factor-price line, *XX* is the isoquant for the labour-intensive commodity *X* and the isoquant *YY* for the capital intensive commodity *Y*. These isoquants are tangent to the *BA* line at points *S* and *R* respectively. The capital-labour used in commodity *X* is measured by the line *OS* and in *Y* by *OR*.

Suppose neutral technical progress occurs in the *Y* industry so that its isoquant *YY* shifts below to *Y₁Y₁* position. This is tangential to the factor-price line *GH* at point *R₁* where the ray *OR* passes through it. As *GH* is parallel to *BA*, the same capital-labour ratio is used at unchanged factor prices, signifying a neutral technical progress. But

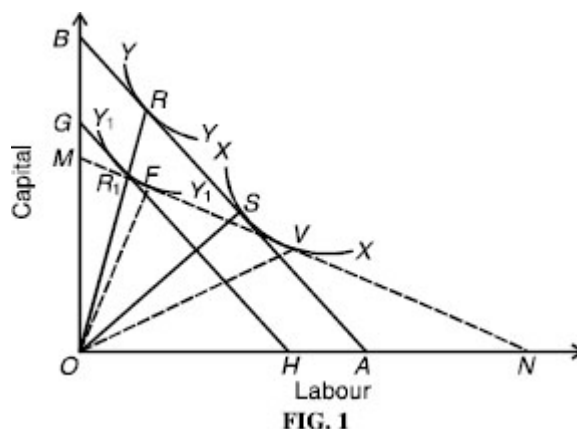


FIG. 1

the new isoquant *Y₁Y₁* lies on a lower factor-price line *GH* than *BA*. It means that the commodity-price ratio has fallen. In order to maintain the same commodity-price ratio that prevailed in the preinnovation situation, a new factor-price line *MN* is drawn which is tangential to both isoquants *Y₁Y₁* and *XX* at *F* and *V* respectively. The new capital-labour ratio in industry *X* is *OV* and in *Y* industry *OF*. Since these lines *OV* and *OF* are to the right of the lines *OS* and *OR* respectively, they show that the capital-labour ratios have fallen in both *X* and *Y* industries. It means that because of technical progress the marginal productivities of both capital and labour have increased

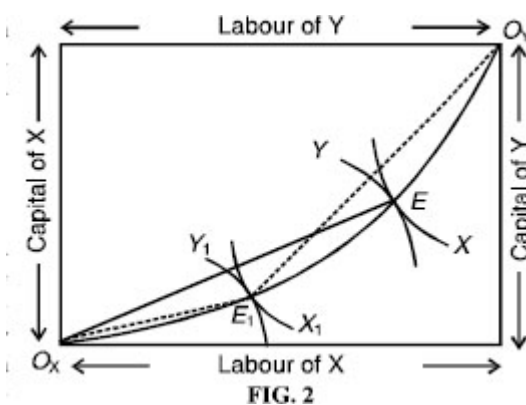
in industry Y . Producers will, therefore, want to produce more of Y . They will bid for more capital and labour at constant factor prices. Since industry Y is capital intensive, the demand for capital will rise and so will the relative price of capital. This will tend to raise the price of capital and to the substitution of labour for capital in both X and Y industries, as shown by the new capital-labour ratios OV and OF .

EFFECT ON REWARDS TO FACTORS

What will be the effect on real rewards to capital and labour after technical progress? They will depend on the price of capital (r) and the wage rate (w). As noted above, when marginal productivities of both capital and labour increase in industry Y with neutral technical progress, producers will produce more of Y . They will, therefore, bid for more capital and labour at constant factor prices. But Y being the capital-intensive industry, the demand for capital will rise and so will the relative price of capital (r) rise in both X and Y industries. This will lead to fall in the demand for labour and consequently to a fall in wage rate (w) in both X and Y .

EFFECT ON OUTPUT AND TERMS OF TRADE

In order to study the effects of neutral technical progress on output and terms of trade, we take the box diagram of Fig. 2. O_x is the origin of commodity X and O_y of commodity Y . O_xO_y is their contract curve. We start from the equilibrium situation at E where the isoquants X and Y relating to the two commodities are tangential.



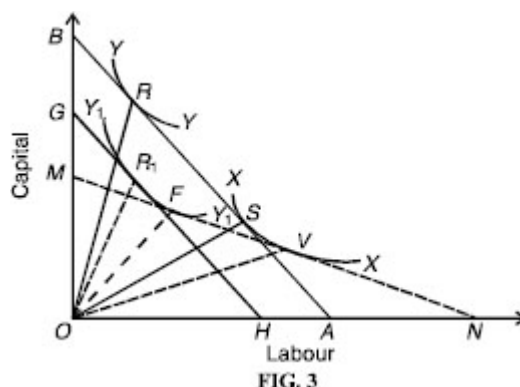
With neutral technical progress taking place in the capital-intensive industry Y , its isoquant shifts to Y_1 and is tangential to the new isoquant X_1 of X at point E_1 . As a result, the output of Y increases from O_yE to O_yE_1 and that of X decreases from O_xE to O_xE_1 . With the increase in the supply of the exportable commodity

Y relative to the decrease in the output of the importable commodity X, the price of Y will fall and that of X will rise. This will lead to unfavourable terms of trade.

EFFECT OF LABOUR-USING OR CAPITAL-SAVING TECHNICAL PROGRESS

Technical progress is capital-saving (or labour-using) when it increases the marginal productivity of labour more than the marginal productivity of capital (MP).

The effects of capital-saving technical progress on the rewards of factors, on output and on terms of trade of capital-intensive export industry of a country are explained in Fig. 3. The figure shows that technical progress is capital-saving in the Y industry when the new capital-labour ratio falls from OR on the YY isoquant to OR_1 on the



Y_1Y_1 isoquant at constant factor prices so that GH is drawn parallel to BA . The MP of labour increases more than that of capital at R_1 on the isoquant Y_1Y_1 . To maintain the same commodity-price ratio in the post-innovation situation, factor-price line MN is drawn tangent to the isoquants Y_1Y_1 and XX at points F and V respectively so that the new capital-labour ratio in industry X is OV and OF in industry Y. As these lines are to the right of OR and OS lines (or less steep), they show fall in capital-labour ratios in both X and Y industries and increase in the of both labour and capital in industry Y. But since the capital-labour ratio at point F is less than at point R_1 on the Y_1Y_1 isoquant, labour will be substituted for capital in Y industry. Thus more labour and less capital will be used after technical progress which means capital-saving or labour-using technical progress.

EFFECT ON REWARDS TO FACTORS

So far as the effect on real rewards to capital and labour to technical progress in industry Y are concerned, they depend on r and w . When

MPs of both labour and capital increase in industry *Y*, producers will tend to produce more of *Y*. But due to capital-saving technical progress, the increase in *MP* of capital is less than that of labour when factor prices change, as shown by point *F* as compared to point *R*₁ in Fig. 3. Thus the demand for labour will be more than that for capital. As *X* is a labour-intensive industry, the demand for labour will further increase in it with the increase in the *MP* of labour. Therefore, the wage rate (*w*) will increase in both *X* and *Y* industries. But the price of capital (*r*) will decrease relative to the wage rate because the demand for capital will fall due to capital-saving technical progress.

EFFECTS ON OUTPUT AND TERMS TO TRADE

The effects of capital-saving technical progress on output and terms of trade of a country are explained in terms of Fig. 4. In the pre-technical progress situation, the equilibrium is at point *E* where the isoquants *X* and *Y* are tangential. Here *O*_{*x*}*E* is the output of *X* and *O*_{*y*}*E* is the output of *Y*. When technical progress takes place in the capital-intensive industry *Y*, its isoquant shifts to *Y*₁ and is

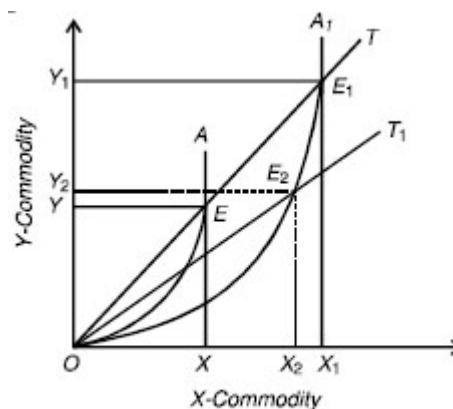


FIG. 4

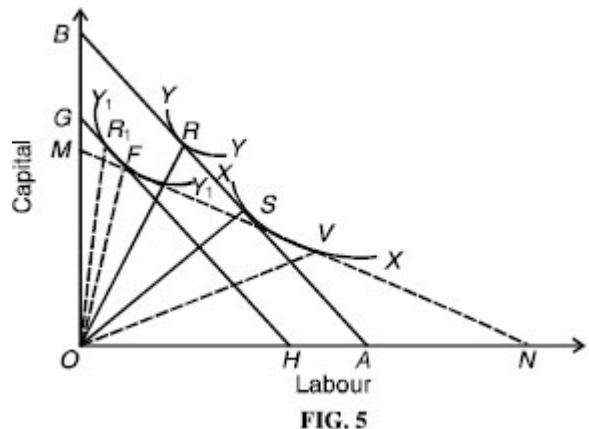
tangent to the new isoquant *X*₁ of *X* at point *E*₁. Thus, when technical progress is capital-saving, at constant factor prices, the output of the capital-intensive commodity *Y* increases and that of labour-intensive commodity *X* decreases.

As the technical progress is capital saving or labour-using, more labour will be transferred to the *Y* industry. As a result, the price of the importable commodity *X* will rise because its output has already fallen from *O*_{*x*}*E* to *O*_{*x*}*E*₁. On the other side, the output of the exportable commodity *Y* has increased from *O*_{*y*}*E* to *O*_{*y*}*E*₁, thereby leading to a fall in its price. Thus the terms of trade have become unfavourable for the country.

EFFECTS OF CAPITAL-USING OR LABOUR-**SAVING** TECHNICAL PROGRESS

Technical progress is capital-using or labour-saving when it increases the productivity of capital more than the productivity of labour.

This is illustrated in a similar manner in terms of Fig. 5, where pre-innovation points are R and S for commodity Y and X respectively on the isoquants YY and XX . With capital-using technical progress in industry Y , the new isoquant is Y_1Y_1 which is tangent to the constant factor-price line GH (parallel to BA) at R . Now the



capital-labour ratio in industry Y has increased because OR is to the left of (more steep than) OS . To maintain the same commodity-price ratio, the factor-price ratio changes with capital-using technical progress. This is because in order to produce more Y , more capital will be needed. Thus the new factor-price ratio MN is drawn which is tangent to the isoquant Y_1Y_1 at F and the isoquant XX at V . The figure shows that the capital-labour ratio in industry Y rises because the ray OF is to the *left* of OR . It is more steep than OR . On the other hand, the capital-labour ratio in industry X *falls* because the ray OV is to the *right* of OS . It is less steep than OS . It means that MP of capital has increased in Y and that of labour has fallen in X , thereby showing the use of more capital and less labour in these industries respectively.

EFFECT ON REWARDS TO FACTORS

So far as the effect of capital-using or labour-saving technical progress on the rewards of capital and labour are concerned, the price of capital (r) will rise and the wage ratio (w) will fall. This is because the MP of capital increases in industry Y at point F in Fig. 5. As a result, the demand for capital will rise and so will r , the price of

capital. But there will be fall in the relative wage rate due to labour-saving technical progress, as the demand for labour falls. In the labour-intensive industry X, the relative wage rate will also fall and the price of capital will rise. This is because with the fall in MP of labour, the demand for labour will decline and of capital increase.

EFFECTS ON OUTPUT AND TERMS OF TRADE

The effects of capital-using technical progress on output and terms of trade of a country are explained in terms of Fig. 6. In the pre-technical progress situation, the equilibrium is at point E where the isoquants X and Y are tangential. Here $O_x E$ is the output of X and $O_y E$ of Y . If capital-using technical progress is labour-saving in Y industry and factor prices

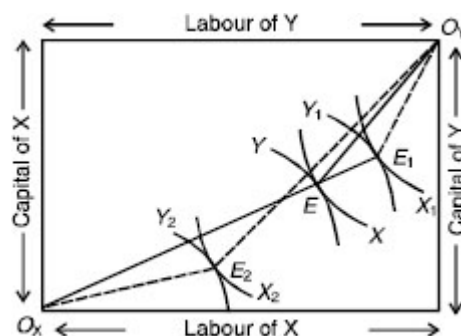


FIG. 6

remain the same, then E will be the new equilibrium point where the isoquants X_1 and Y_1 are tangential. Thus the output of X is higher and that of Y lower at E_1 than at E , that is, $O_x E_1 > O_x E$ and $O_y E_1 < O_y E$. In this situation, the price of the importable commodity X will fall because its output has increased in the country. On the other hand, the price of the exportable commodity Y will rise because its output has fallen. Thus the terms of trade will improve for the country.

If technical progress is *capital-using* in industry Y , the new equilibrium point will be at E_2 where the isoquants X_2 and Y_2 are tangential. As is evident from the figure, the output of Y is higher at E_2 than at E and that of X is lower, ie. $O_y E_2 > O_y E$ and $O_x E_2 < O_x E$. In this case, the price of exportable commodity Y will fall because its output has increased and that of the importable commodity X will rise because its output has fallen. As a result, the terms will be *unfavourable* for the country. Thus the effect of capital-using or laboursaving technical progress on the capital-intensive export industry Y on the terms of trade of a country is *indeterminate*.

CONCLUSION

To conclude with Bo Sodersten, “When technological progress increases the marginal productivities of both the factors..., the effects on output and relative prices, and terms of trade are clearly determinate. But if the marginal productivity of one of the factors or both the factors falls, then the resulting phenomenon about terms of trade cannot be firmly determined.”²

EXERCISES

1. What do you mean by technical progress? Discuss the effects of technical progress on output and terms of trade of a country.
2. Examine the effects of capital-saving and capital-using technical progress on terms of trade of a country.

². *Op. cit.*, p. 178.



THE GAINS FROM TRADE

1. MEANING

The gains from trade refer to net benefits or increases in goods that a country obtains by trading with other countries. It also means the increase in the consumption of a country resulting from exchange of goods and specialisation in production through international trade.

The theory of gains from trade was at the core of the classical theory of international trade.

According to *Adam Smith*¹, the gains from trade resulted from the advantages of division of labour and specialisation both at the national and international level. They were due to the existence of *absolute differences in costs*, that is, each country would specialise in the production of that commodity which it could produce more cheaply than other countries and import those commodities which it could produce dearly. Thus international specialisation would increase world output and benefit all the trading countries.

For *Ricardo*, extension of international trade very powerfully contributed 'to increase the mass of commodities, and therefore, the sum of enjoyments... obtaining the imported goods through trade instead of domestic production.' J.S. *Mill* analysed the gains from international trade in terms of his theory of reciprocal demand which depends upon the terms of trade. In *modern* analysis, the gains from

international trade refer to the gains from exchange and the gains from specialisation based on the general equilibrium analysis.

2. POTENTIAL AND ACTUAL GAIN FROM INTERNATIONAL TRADE

Economists usually distinguish between potential and actual gain from international trade. The potential gain from international trade is the difference in *domestic cost ratios* of producing two commodities in two countries. If X and Y are two commodities and A and B two countries, then the potential gain can be expressed as

$$G_p = \left[\frac{C_x}{C_y} \right]_A - \left[\frac{C_x}{C_y} \right]_B$$

where G_p is the potential gain, C_x is the cost per unit of X , C_y is the cost per unit of Y , and the subscripts A and B refer to the two countries.

[1.](#) For Smith's analysis, refer to ch. 3.

On the other hand, the actual gain from international trade is the difference in *price ratios* of two commodities in the two trading countries. Assuming X and Y as two commodities and A and B as two countries, the actual gain can be shown thus

$$G_A = \left[\frac{P_x}{P_y} \right]_A - \left[\frac{P_x}{P_y} \right]_B$$

where G_A is the actual gain, P_x is the per unit price of X and P_y is the per unit price of Y .

Under perfect competition and free trade between two countries, the cost ratio equals the price ratio of the two commodities in each country so that the potential gain equals the actual gain,



$$\therefore G_p = G_A$$

But if there are tariffs and other trade restrictions and commodity and factor markets are imperfect, the price and cost ratios will not be equal in each country. If the price ratio is more than the cost ratio, the actual gain will be less than the potential gain. Symbolically,

$$\left[\frac{P_x}{P_y} \right] > \left[\frac{C_x}{C_y} \right]$$
$$\therefore G_A < G_p$$

Since there is always imperfect competition in world markets the actual gain is always less than the potential gain in international trade.

3. MEASUREMENT OF GAINS FROM TRADE

Economists have adopted various methods to measure the gains from international trade which are explained as under:

1. The Classical Method. Jacob Viner² points out that the classical economists followed three different methods or criteria for measuring the gains from international trade : (1) differences in comparative costs; (2) increase in the level of national income; and (3) the terms of trade. But they often intermixed these methods without specifying them clearly. We discuss them as under.

Ricardo's Approach. To take Ricardo's approach first, a country will export those commodities in which its comparative production costs are less, and will import those commodities in which its comparative production costs are high. "The country thus economises in the use of its resources, obtaining for a given amount thereof a larger total income than if it attempted to produce everything itself."

Prof. Ronald Findlay in his *Trade and Specialisation* (1970) has explained Ricardo's approach to the gains from international trade in

terms of Fig. 1. In the pre-trade situation, AB is the production possibility curve of a country which produces two commodities X and Y , given the quantity of labour input. On AB , the country is in equilibrium at point E . After it enters into trade, its international price ratio is given by the slope of the line CB . Suppose that it is in equilibrium at point F on the line CB . If the quantities of X and Y represented by the combination at F are to be produced domestically, the quantity of labour input will have to increase sufficiently to shift the domestic production possibility curve up from AB to A_1B_1 . The gains from trade will thus be measured by BB_1/OB .

2. Jacob Viner, *op. cit.*, pp. 436-40.

But Malthus criticised Ricardo for greatly over-estimating the gains from trade. In terms of Fig. 1, Malthus's view is that with the shifting of the domestic production possibility curve to A_1B_1 , F would not be the equilibrium point. Relative prices along A_1B_1 would not be more favourable to the exported commodity X than along CB , so that consumer will prefer a point to the right of F on A_1B_1 rather than F itself. Hence the gains from trading along CB cannot be measured by an increase of labour input in the ratio BB_1/OB . This is because the change to the right of F on A_1B_1 is preferable to that on CB .

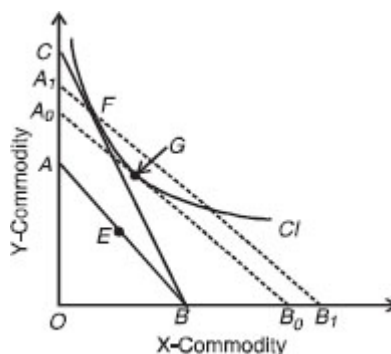


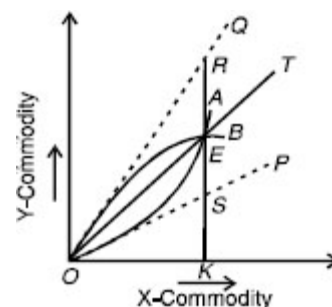
FIG. 1

Prof. Ronald Findlay has modified the Ricardo measure of the gains from trade using the community indifference curve CI . If the labour input is increased sufficiently to push the production possibility curve to A_0B_0 instead of to A_1B_1 , the point G on the CI curve will make each individual as better as he is at the free trade point F . The gains from trade would, therefore, be equal to BB_0/OB instead of the larger BB_1/OB . This measure satisfies Malthus's criticism of Ricardo.

Mill's Approach. J.S. Mill analysed the gains as well as the distribution of the gains from international trade in terms of his theory of reciprocal demand. According to Mill, it is reciprocal demand that determines terms of trade which, in turn, determine the distribution of gains from trade of each country. The term 'terms of trade' refers to the barter terms of trade between the two countries *i.e.*, the ratio of the quantity of imports for a given quantity of exports of a country. To take an example, in country A, 2 units of labour produce 10 units of X and 10 units of Y, while in country B the same labour produces 6X and 8Y. The domestic exchange ratio (or domestic terms of trade) in country A is $1X = 1Y$, and in country B, $1X = 1.33Y$. This means that one unit of X can be exchanged with one unit of Y in country A or 1.33 units of Y in country B. Thus the terms of trade between the two countries will lie between $1X$ or $1Y$ or $1.33Y$.

However, the actual exchange ratio will depend upon reciprocal demand, *i.e.*, "the relative strength and elasticity of demand of the two trading countries for each other's product in terms of their own product." If A's demand for commodity Y is more intense (inelastic), then the terms of trade will be nearer $1X = 1Y$. The terms of trade will move in favour of B and against country A. B will gain more and A less. On the other hand, if A's demand for commodity Y is less intense (more elastic), then the terms of trade will be nearer $1X = 1.33Y$. The terms of trade will move in favour of A and against B. A will gain more and B less.

The distribution of gains from trade is explained in terms of the Marshall-Edgeworth offer curves in Fig. 2. OA is the offer curve of country A, and OB of country B. OP and OQ are the domestic constant cost ratios of producing X and Y in country A and B respectively. These rays are, in fact, the limits within which the terms of trade between the two countries lie. However, the actual terms of trade are settled at E the point of inter-section of OA and OB. The line OT represents equilibrium terms of trade at E.



The cost ratio within country *A* is *KS* units of *Y* : *OK* units of *X*. But it gets *KE* units of *Y* through trade. *SE* units of *Y* is, therefore, its gain. The cost ratio within country *B* is *KR* units of *Y* : *OK* units of *X*. But it imports *OK* units of *X* from country *A* in exchange for only *KE* units of *Y*. *ER* units of *Y* is its gain. Thus both countries gain by entering into trade.

2. The Modern Approach. In modern trade theory, the gains from international trade are clearly differentiated between the gain from exchange and the gain from specialisation. The analysis is explained in terms of the general equilibrium of a closed economy by taking demand and supply. It is characterised by the tangency of a community indifference curve with the transformation curve, and the equality of the marginal rates of substitution between commodities in consumption and production with the domestic terms of trade or commodity price ratio. "The introduction of international trade permits the realisation of a gain from exchange and gain from specialisation. When equilibrium is established and these gains are maximised, the new marginal rate of transformation in production and the new marginal rate of substitution in consumption are equal to the international price ratio or terms of trade." Thus both producers and consumers gain from international trade by producing and consuming more than the pre-trade level.

Fig. 3 explains the gains from international trade. *AB* is the transformation curve representing the supply side and *CI₀* is the community indifference curve representing the demand side of an economy. The closed economy (no trade) equilibrium is shown by point *E* where the *AB* and *CI₀* curves are tangent to each other and both equal the domestic terms of trade or commodity price ratio (line) *P*. With the introduction of international (or free) trade, the international price ratio (terms of trade) will be different from the domestic price ratio (terms of trade). It is shown as *P₁* and is steeper than the domestic price ratio *P*. It

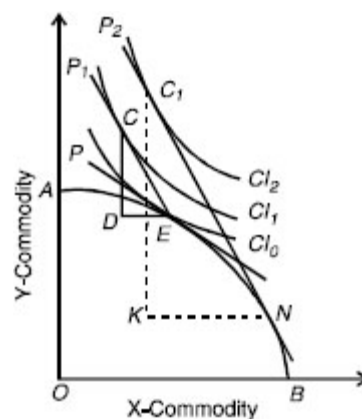


FIG. 3

means that the price of commodity X has increased in relation to commodity Y in the world market. At the international price line P_1 , the consumers move to point C on a higher community indifference curve CI_1 from point E on the CI_0 curve. This movement from E to C measures *the gain from exchange or consumption gain* with no change in production.

Since the price of X has increased in the world market, producers increase its production and decrease that of Y . This leads to movement along the transformation curve from point E to N where a new international price line P_2 is tangent to the AB curve. In other words, at N the marginal rate of transformation in production equals the international price ratio. The new world terms of trade ratio P_2 is the same as P_1 because it is parallel to P_1 . At N the country exports KN of X in exchange for KC_1 imports of Y .

As a result of increased specialisation in the production of X , there is a shift in consumption from point C on the CI_1 curve to point C_1 on the CI_2 curve, where consumers consume larger quantities of both X and Y . This movement from C to C_1 measures the *gain from specialisation in production or production gain*. At C_1 the marginal rate of substitution and the international price ratio are equal. Hence the gains from international trade are maximised at points N and C_1 because the marginal rate of transformation in production and the marginal rate of substitution in consumption are equal to the international price ratio P_2 . The total gain from free trade is the sum of the consumption and production gains and is shown as improvement in welfare from CI_0 to CI_2 . *Increase in National Income*. This analysis also explains the increase in the *real income* and hence the gains from trade. Point N on the price line P_2 corresponds to a higher real income than the pre-trade point E at the price line P . This is because at the new price line P_2 , there are production and consumption gains to the country after trade.

4. FACTORS DETERMINING THE GAINS FROM TRADE

There are several factors which determine the gains from international trade.

1. Differences in Cost Ratios. The gains from international trade depend on differences in comparative cost ratios in the two trading countries. "A country gains by foreign trade, if and when, the traders find that there exists abroad a ratio of prices very different from that to which they are accustomed at home. They buy what to them seems cheap and sell what to them seems dear. The bigger the gap between what to them seems low profits and high profits, and the more important the article affected, the greater will be the gain from trade."³ If country *A* has a comparative advantage in the production of wheat and country *B* has a comparative advantage in the production of cotton, both countries will gain from trade. The size of the gain will depend on the cost of production of each commodity in both countries. If with increase in efficiency of labour the cost of production of wheat in country *A* falls, then country *B* shall gain more from trade. Contrary will be the case if the cost of production of cotton in country *B* falls, then country *A* will gain from trade. Thus the greater the differences in comparative cost ratios, the larger is the gain from trade.

2. Reciprocal Demand. The terms of trade, in turn, depend upon reciprocal demand, *i.e.*, the relative strength and elasticity of demand of one country for the product of the other in exchange for its product. To carry out above example further, if *A*'s demand for commodity *Y* is more intense (inelastic), then the terms of trade will be nearer $1X = 1Y$. The terms of trade will move in favour of *B* and against country *A*. *B* will gain more and *A* less. On the other hand, if *A*'s demand for commodity *Y* is less intense (more elastic), then the terms of trade will be nearer $1X = 1.33Y$. The terms of trade will move in favour of *A* and against *B*. *A* will gain more from trade and *B* less. Thus a country gains the most from trade whose demand for foreign goods is highly elastic while the other country's demand for its goods is highly inelastic.⁴

3. Level of Income. The level of money income of a country is another factor which determines the gains and the share of trade. A country whose goods have a constant demand in other countries will have a high level of money income. If the demand for its exports is high, its export industries will expand. Consequently, the level of money wages will rise in these industries. Competition for labour will force other industries to raise money wages to the level of export industries. Thus the overall level of money incomes will tend to be high in the country. But the prices of foreign goods being imported into the country will be low, while the money incomes of the people will be high. So people of the country will gain as consumers of cheap imported goods. On the contrary, a country having high demand for foreign goods will have low money incomes. As it will have high demand for foreign goods, their prices will be high. Consequently, its people will lose as consumers of those imported goods.

4. Terms of Trade. The most important factor which determines the gains from trade is the terms of trade. The terms of trade refer to the rate at which one commodity of a country is exchanged for another commodity of the other country. This refers to the barter terms of trade which *Mill* used to determine the gains as well as the distribution of the gains from international trade, as explained above in terms of Fig. 2. In the modern analysis also, it is the terms of trade that determine the gains from trade (shown by the domestic price line P in Fig. 3). But when international trade takes place, the terms of trade change and are different from the domestic terms of trade. It is the international terms of trade (shown by the line P_1 and P_2 in Fig. 3) that determine the gains from trade.⁵

³ R.F. Harrod, *International Economics*, p. 34.

⁴ Explain with Fig. 2.

⁵ The relation between gains from trade and terms of trade should be explained in detail by drawing Fig. 2 and Fig. 3.

5. Productive Efficiency. An increase in the productive efficiency of a country also determines its gain from trade. It lowers costs of production and prices of goods in the home country. As a result, the other country gains by importing cheap goods and its terms of trade improve but that of the home country deteriorate. On the other hand, if productive efficiency increases in the foreign country, its goods will be cheaper. The home country will increase its imports of these goods. Its terms of trade will improve and it will gain from trade.

6. Nature of Commodities Exported. Another factor is the nature of commodities exported by a country. A country which exports mainly primary products has unfavourable terms of trade. Consequently, its gain from trade will be smaller. On the contrary, a country exporting manufactured goods has favourable terms of trade and its gain from trade will be larger.

7. Technological Conditions. A country which is technologically advanced and has an abundance of capital, its volume of foreign trade will be large and so will be its gain from international trade. On the other hand, if a country is technologically backward with abundant labour, its volume of foreign trade will be small and so will be its gain from trade.

8. Size of the Country. The gain from trade also depends on the size of the country. A small country which specialises in the production of those commodities in which it enjoys a comparative advantage, exchanges them with a large country. Under conditions of constant opportunity cost and different demand patterns, the more foreign market prices differ from domestic prices, the greater will be the gain from trade for the small country. [6](#)

5. GAINS FROM TRADE AND INCOME DISTRIBUTION

When a country enters into trade with another country, it gains from trade. The gain from trade leads to income distribution in the country.

The analysis that follows is based on the following assumptions :

1. There is a small country.
2. It produces two commodities X and Y .
3. There are two consumers A and B .
4. The government redistributes income between them in accordance with a defined welfare function.

Given these assumptions, the income distribution from the gains of trade is explained in terms of Fig. 4 where A 's utility from the consumption of commodity X is measured on the horizontal axis and B 's utility from the consumption of commodity Y is measured on the vertical axis. Their utility possibility frontier in the pre-trade situation is BA . If they consume the combination C , A 's utility is more than that of B 's, because A consumes more commodity of X than commodity Y consumed by B , i.e., $OX > OY$. If they are at point D , they get equal utilities from the consumption of the two commodities, i.e., $OX_1 = OY$.

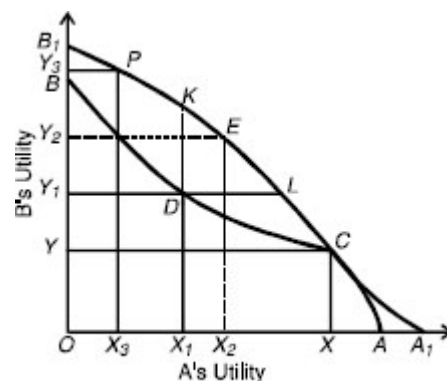


FIG. 4

By entering into trade, when the country gains from trade, its utility possibility frontier is B_1A_1 which touches the pre-trade utility possibility frontier at point C . Any point above C on the B_1A_1 curve such as E on the triangle KDL would make both consumers better off because they consume more of X and Y (i.e. OX_2 and OY_2) than in the pre-trade situation at point D (i.e. OX_1 and OY_1).

[6.](#) For details, refer to section 5 in the present chapter.

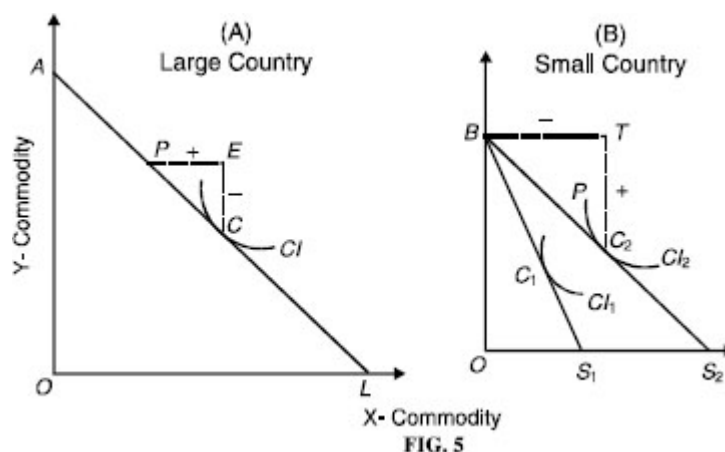
As a result of the gains from trade, there will be change in the distribution of income. Suppose in the trade situation, the consumers are at point P on the B_1A_1 utility possibility frontier where the

consumer B is better off and A is worse off than at point D in the pre-trade situation. The government redistributes income in such a manner between the two consumers that they move along the B_1A_1 curve to point E . Point E is the optimum point where the welfare is maximised because both consumers consume more quantities of (OX_2 and OY_2) X and Y than at point D .

6. GAINS FROM TRADE IN THE CASE OF LARGE AND SMALL COUNTRY *

Taking the size of the country, the gains from trade are relatively larger to a small country than to a large country. A small country does not possess many diversified resources and the size of its domestic market is also limited. So the gains from its domestic specialisation and exchange are limited. On the contrary, a large country possesses diversified resources and a large domestic market, so that it is able to reap the gain from specialisation and exchange within the country. With the opening of international trade, a small country specialises in the production of those commodities in which it enjoys a comparative advantage and exchanges them in the world market. The more world market prices differ from domestic prices, the greater the benefits that the small country may reap. *Heller* has shown that under the assumptions of constant opportunity cost and no change in the terms of trade of the large country, the large country shows no gains from international trade and the small country reaps all the gains.⁷ The case is illustrated in Fig. 5 (A) and (B). Fig. 5 (A) shows the production possibility curve AL of the large country A wherein the no trade situation it produces and consumes at point C where the community indifference curve C_1 is tangent to its production possibility curve AL . Similarly, the small country B produces and consumes at point C where the community indifference curve C_1 is tangent to its production possibility curve BS_1 , as shown in Fig. 5 (B). Since A is a large country, let its domestic price ratio as represented by the curve AL be the international price ratio. The small country B is now faced with the

possibility of exchanging its commodity produced at the international price ratio represented by the BS curve parallel to AL . It will gain by specialising in the production of only commodity Y and produce at point B . It also increases its consumption of X at point C_2 on the community indifference curve CI_2 in Fig. 5 (B). Since there is no change in the price ratio (terms of trade of the large country), it simply modifies its production pattern in order to meet the trade requirements of the small country. So it moves to point P . The small country will export TC_2 of commodity Y to the large country, shown as EC of imports in Fig. 5(A), and import TB of commodity X , shown as EP of exports of the large country.



* This and the next two sections are meant for advanced students.

7. This section is based on H.R. Heller, *International Trade*, Ch. 3 and *International Monetary Economics*, Ch. 1.

So the small country has gained both from specialisation and exchange by entering into trade with the large country, whereas the large country has not gained at all. "Under conditions of increasing opportunity cost and different demand patterns it is likely that the international terms of trade will find a new equilibrium somewhere between the domestic pre-trade price ratios prevailing in the two countries. In that case, both countries share in the benefits from trade, with the proportion of the benefits accruing to each country depending on how much the international terms of trade change from the pre-trade price ratios. Chances are that these prices

changes are more pronounced in the small country and therefore most of the gains accrue to its residents.”⁸

7. FREE TRADE SUPERIOR TO NO TRADE

Samuelson in his two papers ‘*The Gains from International Trade*’ (1939)⁹ and ‘*The Gains from International Trade Once Again*’ (1962)¹⁰ proved the proposition that *free trade is superior to no trade or autarky*.

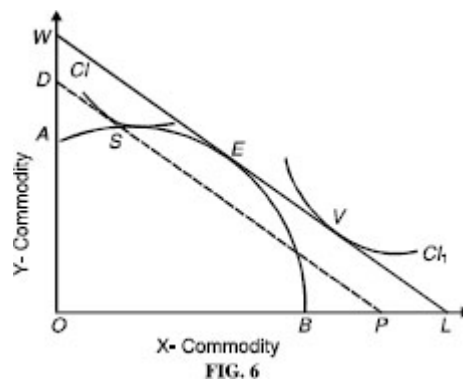
Free trade is defined as a situation in which domestic and world prices of commodities are equal. To prove the proposition that free trade is superior to (or better than) autarky or no trade, the following *assumptions* are made :

1. There is the absence of transport costs.
2. Factors of production are fixed in supply.
3. There are no trade, production and consumption taxes, subsidies and quotas.
4. There is the absence of monopoly power in trade.
5. The technology is such that it leads to concave production possibility curve.
6. There is perfect competition.
7. The country is small.

Given these assumptions, the proposition can be proved in terms of Fig. 6 which is slightly modified diagram given by Jagdish Bhagwati in his paper “*The Gains from Trade Once Again*.”¹¹ Let us suppose that the home country produces only two commodities X and Y. *ASEB* is the home country’s production possibility curve with no trade. The domestic price ratio is given by the line *DP* so that

production and consumption are taking place at point S in the country. With the opening of trade, the world price ratio is given by the slope of the line $WL \parallel DP$. The curve WL is the consumption possibility curve of the economy. Any point on it is reached by producing the combination of X and Y determined by the point E where the production possibility curve AB touches WL . Point E represents the most efficient production point from international trade. The consumption is maximised at a point such as V where WL is tangent to C_I representing community welfare.

We may conclude that under free trade the country produces more of both X and Y commodities at point E than at point S under no trade. It also consumes more of both commodities at point V under free trade than at point S under no trade. Further, the consumption possibility frontier WEL under free trade lies uniformly outside the consumption possibility frontier AEB under no trade, except at their common tangency point E . All these prove the proposition that free trade is superior to no trade or autarky.



[8.](#) *Ibid.*, pp. 7-8.

[9.](#) *Canadian Journal of Economics and Political Science*, September 1939.

[10.](#) *Economic Journal*, December 1962.

[11.](#) *Oxford Economic Paper*, July 1968.

8. RESTRICTED TRADE SUPERIOR TO NO TRADE

Kemp¹² has argued that restricted trade is superior to no trade when the restrictions are not prohibitive and are in the form of tariffs, quotas or exchange restrictions. This is illustrated in Fig. 7 where the no-trade equilibrium of the economy is shown by point E where the production possibility curve AB and the community indifference curve

CI_0 are tangent to each other and both equal the slope of the domestic price line P . Under free trade, the consumption gain is shown by the movement from E to C on the CI_1 curve on the international price line P_1 , and the additional gain from specialisation by the movement from C to C_2 when the international price line P_3 is tangent to the production possibility curve AB at N and to the CI_3 curve at C_2 .

Suppose the country imposes a non-prohibitive tariff, given the international price ratio. As a result, the domestic ratio is shown by the slope of the line PT and production shifts from point N to N_1 . At N_1 the new domestic price line, inclusive of tariff PT , is tangent to the production possibility curve AB . Restricted trade will take place along the international price line P_2 which is parallel to P_3 . Consumption shifts to C_1 on the CI_2 curve. This shows that welfare under restricted trade declines to CI_2 as compared with CI_3 under free trade but is more than CI_0 under no trade. This proves that free trade is better than restricted trade and *restricted trade is superior to no trade or autarky*.

Jagdish Bhagwati in his paper “*The Gains from Trade Once Again*” (1968) has demonstrated that the proposition *restricted trade is superior to no trade* is valid only if trade restrictions in the form of quotas, tariffs or exchange restrictions bring difference between foreign prices and domestic prices facing both the consumers and the producers. But if trade is restricted by a production subsidy (or, alternatively tax) on importables (or, alternatively exportables) Kemp’s theorem does not hold valid. Fig. 8 illustrates

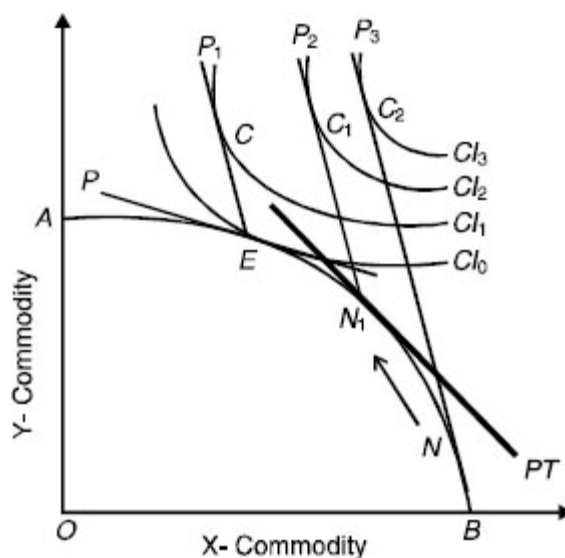


FIG. 7

the case of a production subsidy on the importable commodity Y . Under no trade, the welfare level is represented by the CI curve where E is the production and consumption point. Under free trade, at the given international price ratio measured by the slope of P_1 line, the production of exportable X -good increases at point N and consumption at point C so that welfare increases from CI_0 to CI_1 . When the production subsidy P_s is introduced, production shifts from N to N_1 and consumption is reduced from C to C' . Consequently, welfare is reduced below the free trade level and below the no trade level, CI' is lower than CI_0 . This proves that *restricted trade is inferior to no trade or autarky*.

12. M.C. Kemp, "The Gain from International Trade," *EJ*, December 1962.

RESTRICTED TRADE SUPERIOR TO FREE TRADE

The above cases relate to a small country which is not able to affect world prices. If we assume that the country is large, it will have an impact on world prices of the commodities when it imposes a tariff. When the country restricts the importation of a commodity through a tariff, its world price increases. Its terms of trade become favourable and the community welfare increases. This is illustrated in Fig. 9 where the free trade production point is N on the AB curve and the consumption point is C_2 on the CI_3 curve. As a result of the tariff, the production shifts from N to N_1 where the domestic price line PT inclusive of tariff is tangent to the production possibility curve AB in Fig. 9. Since the country is large, the imposition of a tariff on the importable commodity Y forces down its relative price in world markets. This is shown by the steeper international price line P_4 as against the pre-tariff world price line P_3 . This indicates improvement in the terms of trade and increase in

welfare from C_2 to C_3 on the community indifference curve CI_4 for this large country after the imposition of tariff. Thus it proves that restricted trade is superior to free trade, CI_4 is higher than CI_3 .¹³

9. STATIC AND DYNAMIC GAINS FROM TRADE

The gains from trade are divided into static and dynamic gains which are discussed as under :¹⁴

STATIC GAINS

The following are the static gains from trade:

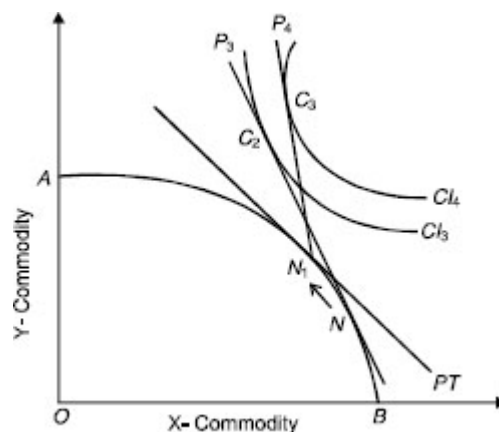


FIG. 9

1. Maximisation of Production. According to the classical economists, the gains from trade result from the advantages of division of labour and specialisation both at the national and international levels. Given the resources and technology in a country, it is specialisation in production on the basis of comparative advantage and trading which enables each country to exchange its goods for the goods of another country. Thus it reaps greater gain than without trade. Each country exports those goods which it produces cheaper in exchange for what other countries produce at a lower cost. According to Ricardo, "The gain from trade consisted in the saving of cost resulting from obtaining the imported goods through trade instead of domestic production." Thus trade maximises production.

¹³. This figure should be read along with Fig. 8.

¹⁴. The gains from trade do not relate to the merits of free trade.

2. Increase in Welfare. As a result of international division of labour and specialisation, the production of goods increases in the trading country. As a result, the consumption of goods increases and so

does the welfare of the people. As pointed out by Ricardo, “The extension of international trade very powerfully contributes to increase the mass of commodities and, therefore, the sum of enjoyments.”

3. Increase in National Income. When a country gains from international specialisation and exchange of goods in trade, there is increase in its national income. This, in turn, raises its level of output and growth rate of the economy.

4. Vent for Surplus. The gain from trade also arises from the existence of idle land, labour, and other resources in a country before it enters into international trade. With its opening (vent) to world markets, its resources are used to produce a surplus of goods which would otherwise remain unsold. This is Adam Smith’s vent for surplus gain from trade.

DYNAMIC GAINS

The following are the dynamic gains from trade:

1. Efficient Employment of Resources. The direct dynamic gains from foreign trade is that comparative advantage leads to a more efficient employment of the productive resources of the world.

2. Widens the Market. The major indirect dynamic gain from trade is that it widens the size of the market. By enlarging the size of the market and scope of specialisation, international trade makes a greater use of machines, encourages inventions and innovations, raises labour productivity, lowers costs and leads to faster growth.

3. Development of Other Activities. When a country starts producing goods for export and importing goods for domestic consumption, other economic activities also develop. There is expansion of infrastructure facilities in power, and building highways, bridges, flyovers, etc. Shopping and housing complexes are built along with industrial centres. The primary sector develops into business sector for export of raw materials and for domestic use.

Tertiary sector expands in the form of banks, communications, insurance, *etc.*

4. Increase in Investments. Foreign trade encourages the setting up of new units for assembling and production of variety of goods. Supplementary and ancilliary units are established. Production for exports leads to backward and forward linkages in developing other activities referred to above. All these increase autonomous and induced investments in the country.

EXERCISES

1. What do you mean by 'gains from trade'? Discuss the relation between 'gains from' and 'terms of trade'.
2. How is the gain from international trade determined?
3. How are the gains from trade measured? On what factors do they depend?
4. How will you measure the gains from trade in the case of large and small country.
5. "Free trade is superior to no trade". Explain this statement.
6. "Restricted trade is superior to no trade", and "Restricted trade is superior to free trade." Explain these statements fully.
7. Explain the static and dynamic gains from trade.
8. Distinguish between actual and potential gains from trade.



THE TERMS OF TRADE

The terms of trade refer to the rate at which the goods of one country exchange for the goods of another country. It is a measure of the purchasing power of exports of a country in terms of its imports, and is expressed as the relation between export prices and import prices of its goods. When the export prices of a country rise relatively to its imports prices, its terms of trade are said to have improved. The country gains from trade because it can have a larger quantity of imports in exchange for a given quantity of exports. On the other hand, when its imports prices rise relatively to its export prices, its terms of trade are said to have worsened. The country's gains from trade is reduced because it can have a smaller quantity of imports in exchange for a given quantity of exports than before.

Jacob Viner¹ and G.M. Meier² have discussed many types of terms of trade which we take up one by one.

1. COMMODITY OR NET BARTER TERMS OF TRADE

The commodity or net barter terms of trade is the ratio between the price of a country's export goods and import goods. Symbolically, it can be expressed as

$$T_c = P_x/P_m$$

where T_c stands for the commodity terms of trade, P for price, the subscript x for exports and m for imports.

To measure changes in the commodity terms of trade over a period, the ratio of the change in export prices to the change in import prices is taken. Then the formula for the commodity terms of trade is

$$T_c = \frac{P_{x_1}}{P_{x_0}} \bigg/ \frac{P_{m_1}}{P_{m_0}}$$

where the subscripts 0 and 1 indicate the base and end periods.

Taking 1971 as the base year and expressing India's both export prices and import prices as 100, if we find that by the end of 1981 its index of export prices had fallen to 90 and the index of import prices had risen to 110. The terms of trade had changed as follows :

1. J. Viner, *op. cit.*, pp. 558-70.

2. Gerald M. Meier, *The International Economics of Development*, 1986, Ch. 3.

$$T_c = \frac{90}{100} \bigg/ \frac{110}{100} = 81.82$$

It implies that India's terms of trade declined by about 18 per cent in 1981 as compared with 1971, thereby showing worsening of its terms of trade.

If the index of export prices had risen to 180 and that of import prices to 150, then the terms of trade would be 120. This implies an improvement in the terms of trade by 20 per cent in 1981 over 1971.

The concept of the commodity or net barter terms of trade has been used by economists to measure the gain from international trade. The terms of trade, as determined by the offer curves in the

Mill-Marshall analysis, are related to the commodity terms of trade.

ITS LIMITATIONS

Despite its use as a device for measuring the direction of movement of the gains from trade, this concept has important limitations.

1. Problems of Index Numbers. Usual problems associated with index number in terms of coverage, base year and method of calculation arise.

2. Change in Quality of Product. The commodity terms of trade are based on the index numbers of export and import prices. But they do not take into account changes taking place in the quality and composition of goods entering into trade between two countries. At best, a commodity terms of trade index shows changes in the relative prices of goods exported and imported in the base year. Thus the net barter terms of trade fail to account for large change in the quality of goods that are taking place in the world, as also new goods that are constantly entering in international trade.

3. Problem of Selection of Period. Problem arises in selecting the period over which the terms of trade are studied and compared. If the period is too short, no meaningful change may be found between the base date and the present. On the other hand, if the period is too long, the structure of the country's trade might have changed and the export and import commodity content may not be comparable between the two dates.

4. Causes of Changes in Prices. Another serious difficulty in the commodity terms of trade is that it simply shows changes in export and import prices and not how such prices change. As a matter of fact, there is much qualitative difference when a change in the commodity terms of trade index is caused by a change in export prices relative to import prices as a result of changes in demand for exports abroad, and ways or productivity at home. For instance, the commodity terms of trade index may change by a rise in export prices relative to import prices due to strong demand for exports abroad and wage inflation at home. The commodity terms of trade index does not take into account the effects of such factors.

5. Neglect of Import Capacity. The concept of the commodity terms of trade throws no light on the “capacity to import” of a country. Suppose there is a fall in the commodity terms of trade in India. It means that a given quantity of Indian exports will buy a smaller quantity of imports than before. Along with this trend, the volume of Indian exports also rises, may be as a consequence of the fall in the prices of exports. Operating simultaneously, these two trends may keep India’s capacity to import unchanged or even improve it. Thus the commodity terms of trade fails to take into account a country’s capacity to import.

6. Ignores Productive Capacity. The commodity terms of trade also ignores a change in the productive efficiency of a country. Suppose the productive efficiency of a country increases. It will lead to a fall in the cost of production and in the prices of its export goods. The fall in the prices of export goods will be reflected in the worsening of its commodity terms of trade. But, in reality, the country will not be worse off than before. Even though a given value of exports will exchange for less imports, the country will be better off. This is because a given volume of exports can now be produced with lesser resources, and the real cost of imports, in terms of resources used in exports, remains unchanged.

7. Not Helpful in Balance of Payment Disequilibrium. The concept of commodity terms of trade is valid if the balance of payments of a country includes only the export and imports of goods and services, and the balance of payments balances in the base and the given years. If the balance of payments also includes unilateral payments or unrequired exports and or/imports, such as gifts, remittances from and to the other country, *etc.*, leading to disequilibrium in the balance of payments, the commodity terms of trade is not helpful in measuring the gains from trade.

8. Ignores Gains from Trade. The concept of commodity terms of trade fails to explain the distribution of gains from trade between a developed and under-developed country. If the export price index of an underdeveloped country rises more than its import price index, it

means an improvement in its terms of trade. But if there is an equivalent rise in profits of foreign investments, there may not be any gain from trade.

To overcome this last difficulty, Taussig³ introduced the concept of the gross barter terms of trade.

2. GROSS BARTER TERMS OF TRADE

The gross barter terms of trade is the ratio between the quantities of a country's imports and exports. Symbolically, $Tg = Qm/Qx$, where Tg stands for the gross terms of trade, Qm for quantities of Imports and Qx for quantities of exports. The higher the ratio between quantities of imports and exports, the better the gross terms of trade. A larger quantity of imports can be had for the same volume of exports.

To measure changes in the gross barter terms of trade over a period, the index number of the quantities of imports and exports in base period and the end period are related to each other. The formula for this is :

$$Tg = \frac{Qm_1}{Qm_0} \bigg/ \frac{Qx_1}{Qx_0}$$

Taking 1971 as the base year and expressing India's both quantities of imports and exports as 100, if we find that the index of quantity imports had risen to 160 and that of quantity exports to 120 in 1981, then the gross barter of trade had changed as follows:

$$Tg = \frac{160}{100} \bigg/ \frac{120}{100} = 133.33$$

It implies that there was an improvement in the gross barter terms of trade of India by 33 per cent in 1981 as compared with 1971.

If the quantity of import index had risen by 130 and that of quantity exports by 180, then the gross barter terms of trade would be 72.22.

$$T_g = \frac{130}{100} \div \frac{180}{100} = 72.22$$

This implies deterioration in the terms of trade by 18 per cent in 1981 over 1971.

[3.](#) F.W. Taussig, *International Trade*, 1927.

When the net barter terms of trade (T_c) equal the gross barter terms of trade (T_g), the country has balance of trade equilibrium. It shows that total receipts from exports of goods equal total payments for import goods.

Numerically:

$$\begin{array}{lcl}
 & P_x \times Q_x & = P_m \times Q_m \\
 \text{or} & \frac{P_x}{P_m} & = \frac{Q_m}{Q_x} \\
 \text{or} & T_c & = T_g
 \end{array}$$

ITS CRITICISMS

The concept of gross barter terms of trade has been criticised by economists on the following grounds:

1. Aggregating Goods, Services and Capital Transactions. The concept of gross barter terms of trade has been criticised for lumping together all types of goods and capital payments and receipts as one category in the index numbers of exports and imports. No units are applicable equally to rice and to steel, or to export (or import) of capital and the payment (or receipt) of a grant. It is therefore, not possible to distinguish between the various types of transactions which are lumped together in the index. Haberler, Viner and other economists have, therefore, dismissed this concept as unreal and impracticable as a statistical measure.

2. Ignores Factor Productivity. This concept ignores the effect of improvement in factor productivity on the terms of trade of a country. A country may have unfavourable gross barter terms of trade due to

increase in factor productivity in the export sector. This increased factor productivity, in turn, reflects the gain for the exporting country.

3. Neglects Balance of Payments. The concept of gross barter terms of trade relates to the trade balance and ignores the influence of international capital receipts and payments of a trading country.

4. Ignores Improvements in Production. This concept measures the terms of trade in terms of physical quantities of exports and imports but ignores qualitative improvements in the production of exportable and importable goods.

5. Not True Index of Welfare. An improvement in gross barter terms of trade is regarded as an index of a higher level of welfare from trade. For the country exchanges more importable goods for its exportable goods. But this may not be true if tastes, preferences and habits of the people change so that the country needs less importables which yield greater satisfaction to the people. It will lead to unfavourable gross barter terms of trade but improve welfare.

Conclusion. Due to the above noted limitations, Viner uses only the concept of net barter terms of trade while other writers use only the export-import price ratio as the commodity terms of trade. So this concept has been discarded by economists.

3. INCOME TERMS OF TRADE

Dorrance⁴ has improved upon the concept of the net barter terms of trade by formulating the concept of the *income terms of trade*. This index takes into account the volume of exports of a country and its export and import prices (the net barter terms of trade). It shows a country's changing import capacity in relation to changes in its exports. Thus, the income terms of trade is the net barter terms of trade of a country multiplied by its export volume index. It can be expressed as

$$\left(\therefore T_c = \frac{P_x}{P_m} \right)$$

where T_y is the income terms of trade, T_c the commodity terms of trade and Q_x the export volume index.

[4.](#) G.S. Dorrance, 'The Income Terms of Trade', *R.E.S.*, Vol. XVI, 1948-49.

A.H. Imlah calculates this index by dividing the index of the value of exports by an index of the price of imports. He calls it the "Export Gain from Trade Index."[5](#)

Taking 1971 as the base year, if

$P_x = 140$, $P_m = 70$ and $Q_x = 80$ in 1981, then

$$P_y = \frac{140 \times 80}{70} = 160$$

It implies that there is improvement in the income terms of trade by 60 per cent in 1981 as compared with 1971.

If in 1981, $P_x = 80$, $P_m = 160$ and $Q_x = 120$, then,

$$P_y = \frac{80 \times 120}{160} = 60$$

It implies that the income terms of trade have deteriorated by 40 per cent in 1981 as compared with 1971.

A rise in the index of income terms of trade implies that a country can import more goods in exchange for its exports. A country's income terms of trade may improve but its commodity terms of trade may deteriorate. Taking the import prices to be constant, if export prices fall, there will be an increase in the sales and value of exports. Thus while the income terms of trade might have improved, the commodity terms of trade might have deteriorated.

The income terms of trade is called the *capacity to import*. In the long-run, the total value of exports of a country must equal to its total value of imports, i.e., $P_x.Q_x = P_m.Q_m$ or $P_x.Q_x/P_m = Q_m$. Thus $P_x.Q_x/P_m$ determines Q_m which is the total volume that a country can import. The capacity to import of a country may increase if other things remain the same (i) the price of exports (P_x) rises, or (ii) the price of imports (P_m) falls, or (iii) the volume of its exports (Q_x) rises. Thus the concept of the income terms of trade is of much practical value for developing countries having low capacity to import.

ITS CRITICISMS

The concept of income terms of trade has been criticised on the following counts:

1. Fails to Measure Gain or Loss from Trade. The index of income terms of trade fails to measure precisely the gain or loss from international trade. When the capacity to import of a country increases, it simply means that it is also exporting more than before. In fact, exports include the real resources of a country which can be used domestically to improve the living standard of its people.

2. Not Related to Total Capacity to Import. The income terms of trade index is related to the export based capacity to import and not to the total capacity to import of a country which also includes its foreign exchange receipts. For example, if the income terms of trade index of a country has deteriorated but its foreign exchange receipts have risen, its capacity to import has actually increased, even though the index shows deterioration.

[5.](#) A.H. Imlah, 'Terms of Trade of the United Kingdom', *J.E.H.*, Nov., 1950.

3. Inferior to Commodity Terms of Trade. Since the index of income terms of trade is based on commodity terms of trade and leads to contradictory results, the concept of the commodity terms of trade is usually used in preference to the income terms of trade concept for measuring the gain from international trade.

4. SINGLE FACTORAL TERMS OF TRADE

The concept of commodity terms of trade does not take account of productivity changes in export industries. Prof. Viner had developed the concept of single factorial terms of trade which allows changes in the domestic export sector. It is calculated by multiplying the commodity terms of trade index by an index of productivity changes in domestic export industries. It can be expressed as :

$$Ts = Tc \cdot Fx = \frac{Px \cdot Fx}{Pm} \quad \left(\because Tc = \frac{Px}{Pm} \right)$$

where Ts is the single factorial terms of trade, Tc is the commodity terms of trade, and Fx is the productivity index of export industries.

It shows that a country's factorial terms of trade improve as productivity improves in its export industries. If the productivity of a country's exports industries increases, its factorial terms of trade may improve even though its commodity terms of trade may deteriorate. For example, the prices of its exports may fall relatively to its import prices as a result of increase in the productivity of the export industries of a country. The commodity terms of trade will deteriorate but its factorial terms of trade will show an improvement.

Its Limitations. This index is not free from certain limitations. It is difficult to obtain the necessary data to compute a productivity index. Further, the single factorial terms of trade do not take into account the potential domestic cost of production of imports industries in the other country.

To overcome this weakness, Viner formulated the double factorial terms of trade.

5. DOUBLE FACTORAL TERMS OF TRADE

The double factorial terms of trade take into account productivity changes both in the domestic export sector and the foreign export sector producing the country's imports. The index measuring the double factorial terms of trade can be expressed as

$$Td = Tc \cdot \frac{Fx}{Fm} = \frac{Px}{Pm} \cdot \frac{Fx}{Fm} \quad \left(\because Tc = \frac{Px}{Pm} \right)$$

where Td is the double factorial terms of trade, Px/Pm is the commodity terms of trade, Fx is the export productivity index, and Fm is the import productivity index.

It helps in measuring the change in the rate of exchange of a country as a result of the change in the productive efficiency of domestic factors manufacturing exports and that of foreign factors manufacturing imports for that country. A rise in the index of double factorial terms of trade of a country means that the productive efficiency of the factors producing exports has increased relatively to the factors producing imports in the other country.

Its Criticisms

1. Not Possible to Construct a Double Factoral Terms of Trade Index. In practice, however, it is not possible to calculate an index of double factorial terms of trade of a country. Prof. Devons⁶ made some calculations of changes in the single factorial terms of trade of England between 1948-53. But it has not been possible to construct a double factorial terms of trade index of any country because it involves measuring and comparing productivity changes in the import industries of the other country with that of the domestic export industries.

2. Required Quantity of Productive Factors not Important. Moreover, the important thing is the quantity of commodities that can be imported with a given quantity of exports rather than the quantity of productive factors required in a foreign country to produce its imports.

3. No Difference Between the Double Factoral Terms of Trade and the Commodity Terms of Trade. Again, if there are constant returns to scale in manufacturing and no transport costs are involved, there is no difference between the double factoral terms of trade and the commodity terms of trade of a country.

4. Single Factoral Terms of Trade is more Relevant Concept. According to Kindleberger, "The single factoral terms of trade is a much more relevant concept than the double factoral. We are interested in what our factor can earn in goods, not what factor services can command in the services of foreign factors. Related to productivity abroad moreover, is a question of the quality of the goods imported."⁷

6. REAL COST TERMS OF TRADE

Viner has also developed a terms of trade index to measure the real gain from international trade. He calls it the real cost terms to trade index. This index is calculated by multiplying the single factoral terms of trade with the reciprocal of an index of the amount of disutility per unit of productive resources used in producing export commodities. It can be expressed as:

$$Tr = Ts \cdot Rx = \frac{Px}{Pm} \cdot Fx \cdot Rx \quad \left(\because Ts = \frac{Px}{Pm} \cdot Fx \right)$$

where Tr is the real cost terms of trade, Ts is the single factoral terms of trade and Rx is the index of the amount of disutility per unit of productive resources used in producing export commodities.

ITS CRITICISMS

A favourable real cost terms of trade index (Tr) shows that the amount of imports received is greater in terms of the real cost involved in producing export commodities. But this index fails to measure the real cost involved in the form of goods produced for export which could be used for domestic consumption to pay for

imports. To overcome this problem. Viner develops the index of utility terms of trade.

7. UTILITY TERMS OF TRADE

The utility terms of trade index measures “changes in the disutility of producing a unit of exports and changes in the relative satisfactions yielded by imports, and the domestic products foregone as the result of export production.” In other words, it is an index of the relative utility of imports and domestic commodities forgone to produce exports. The utility terms of trade index is calculated by multiplying the real cost terms of trade index with an index of the relative average utility of imports and of domestic commodities foregone. If we denote the average utility by u and the domestic commodities whose consumption is foregone to use resources for export production by a , then $u = \frac{Um_1}{Ua_1} / \frac{Um_0}{Ua_0}$, where u is the index of relative utility of imports and domestically foregone commodities. Thus, the utility terms of trade index can be expressed as :

$$Tu = Tr.u = \frac{Px}{Pm} \cdot Fx.Rx.u$$

[6.](#) E. Devons. ‘Statistics of the United Kindom Terms of Trade’, *Manchester School*, Sept. 1954.

[7.](#) C.P. Kindleberger, *op. cit.*, p. 76.

Since the real terms of trade index and utility terms of trade index involve the measurement of disutility in terms of pain, irksomeness and sacrifice, they are elusive concepts. As a matter of fact, it is not possible to measure disutility (for utility) in concrete terms.

Its Criticisms

Hence like the single and double factorial terms of trade concepts, the concepts of real and utility terms of trade are of little practical use. They are only of academic interest. That is why the concepts of the commodity terms of trade and of income terms of trade have been used in measuring the gains from international trade in developed as well as developing countries.

8. DETERMINATION OF TERMS OF TRADE*

When there are two countries and two goods, the terms of trade of a country refer to the ratio between export prices and import prices of its goods, *i.e.* P_X/P_M . The exports of one country being the imports of the other country and vice versa, the terms of trade of one country are the inverse of the terms of trade of the other country. Suppose there are two countries—Germany and England. Germany produces linen and England produces cloth which they trade with each other. The terms of trade of Germany are P_L/P_C and of England P_C/P_L . The terms of trade between them are determined when their price ratios are in equilibrium, *i.e.*, $P_L/P_C = P_C/P_L = 1$.

The determination of equilibrium terms of trade is explained in Fig. 1 where OE is England's offer curve and OG is the offer curve of Germany. The point A where the two offer curves intersect each other is the equilibrium point and the terms of trade are determined by the slope of the ray OT . The line OT is the relative price ratio of the two goods which is equal to 1, that is $P_X/P_M = P_L/P_L = OC/OL = 1$ for England and $P_X/P_M = P_L/P_L = OL/OC = 1$ for Germany.

At this price ratio OT , England exports OC units of cloth to Germany which exactly equal OL units of linen imports from

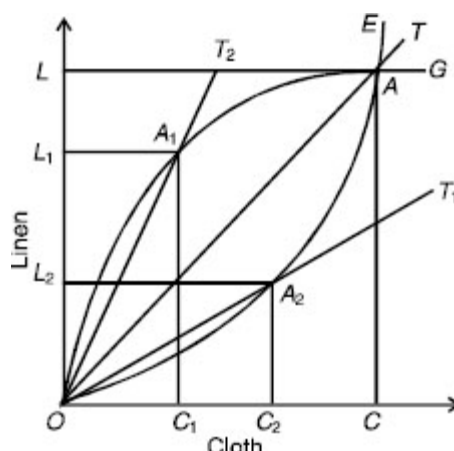


FIG. 1

Germany. On the other hand, Germany exports OL units of linen to England which exactly equal OC units of cloth from England. Since the exports and imports of cloth and linen supplied and demanded by England and Germany respectively equal at the line OT , the terms of trade are in equilibrium.

To prove that OT is the equilibrium price ratio at which the two countries trade cloth and linen, take the price ratios OT which cuts the offer curve OE of England at point A_2 . Similarly, take the price ratio OT_2 which cuts the offer curve OG of Germany at point A_1 . At point A_2 , the price ratio is $OC_2/OL_2 (= OL_1/OC_1)$. At this price ratio, England would export OC_2 of cloth in exchange for OL_2 imports of linen from Germany. On the other hand, at point A_1 , the price ratio is OL_1/OC_1 at which Germany would export OL_1 of linen in exchange for OC_1 cloth imports from England. But OL_1 units of linen exports by Germany are much greater than OL_2 units which England is willing to import from it. The supply of linen being more than its demand, it will lower its price (P_L/P_C) which will increase its demand by England. To meet this increased demand, Germany would continue to increase its supply of linen along its offer curve OG from point A_1 upwards till it reaches point A . Similarly, at point A_2 , England would export OC_2 units of cloth to Germany which are much greater than OC_1 units which Germany is willing to import. Thus the supply of cloth being more than its demand, the price of cloth (P_C/P_L) will fall which will increase its demand by Germany. To meet this increased demand, England would continue to increase its supply of cloth along its offer curve OE from point A_2 upwards till it reaches point A . Thus equilibrium terms of trade would be re-established at the OT price ratio where the desired quantities of exports and imports of linen and cloth are equal.

* This also relates to measuring terms of trade with offer curves. Also see Ch. 7.

9. FACTORS AFFECTING TERMS OF TRADE*

The terms of trade of a country are influenced by a number of factors which are discussed as under :

1. RECIPROCAL DEMAND

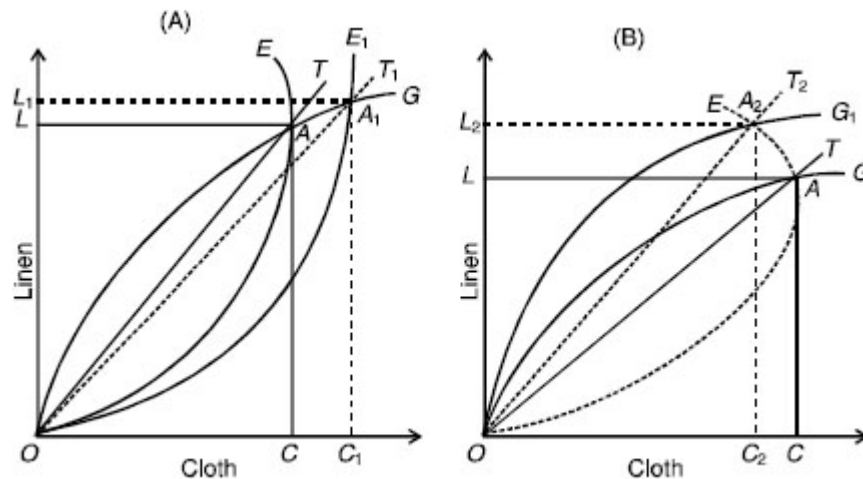


FIG. 2

The terms of trade of a country depend upon reciprocal demand, *i.e.* “the strength and elasticity of each country’s demand for the other country’s product”. Suppose there are two countries, Germany and England, which produce linen and cloth respectively. If Germany’s demand for England’s cloth becomes more intense (inelastic), the price of cloth rises more than the price of linen, the commodity terms of trade will move against Germany and in favour of England. On the other hand, if England’s demand for Germany’s linen becomes more intense, the price of linen will rise more than the price of cloth, and the commodity terms of trade will move in favour of Germany and against England. This is explained diagrammatically in Fig. 2 (A) and (B) where OE is England’s offer curve and OG is the offer curve of Germany. The point A where the two offer curves intersect each other is the equilibrium point at which OC of cloth is traded by England for OL linen of Germany. The terms of trade are represented by the slope of the ray OT .

Suppose England's demand for Germany's linen increases. England will be prepared to sell more cloth for Germany's linen. The increase in England's demand is shown by the shifting of its offer curve to the right as OE_1 which intersects Germany's offer curve OG at A_1 in Panel (A).

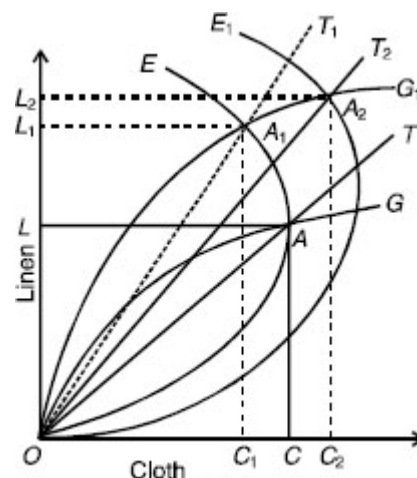


FIG. 3

Now the new terms of trade are represented by the ray OT_1 whereby England exports OC_1 units of cloth for OL_1 units of linen. The terms of trade have deteriorated for England and improved for Germany. This is evident from the fact that England exports CC_1 more units of cloth in exchange for LL_1 units of linen. CC_1 is greater than LL_1 .

* This section is meant for advanced study.

Similarly, in Panel (B), if Germany's demand for England's cloth increases, Germany's offer curve shifts to the left as OG_1 which intersects England's initial offer curve OE at A_2 . Now Germany exports OL_2 units of linen for OC_2 units of cloth. The new terms of trade, as shown by the slope of ray OT_2 , indicate that they have deteriorated for Germany and improved for England. This is evident from the fact that Germany exports LL_2 more linen in exchange for CC_2 less cloth. But the terms of trade will depend upon the elasticity of demand* of the offer curve of each country. The more inelastic the offer curve of a country, the more unfavourable are the terms of trade for it in relation to the other country. On the contrary, the more elastic its offer curve, the more favourable are its terms of trade in relation to the other country. This is illustrated in Fig. 3 where the initial equilibrium terms of trade are represented by OT with OE and OG curves intersecting at point A . England trades OC of cloth with OL of linen of Germany. When the OG curve of Germany shifts to OG_1 , it

cuts the OE curve of England at A_1 and the terms of trade line is OT_1 . Germany's offer curve OG_1 being inelastic in relation to England's offer curve OE , Germany's demand for English cloth is more intense than before. Now Germany offers more linen LL_1 against less cloth CC_1 of England than at the OT line. Thus the terms of trade are unfavourable for Germany and favourable for England.

Now suppose the offer curve of England shifts from OE to OE_1 and cuts the OG_1 curve of Germany at A_2 . The terms of trade are set at OT_2 line. In this case, England's offer curve OE_1 being more inelastic in relation to Germany's offer curve OG_1 , England's demand for German linen is more intense. Therefore, England offers more cloth C_1C_2 and Germany offers less linen L_1L_2 than at the OT_1 line. This shows that the terms of trade have worsened for England and improved for Germany.

* For elasticity of offer curve, refer to Ch. 2.

2. CHANGES IN FACTOR ENDOWMENTS

Changes in factor endowments of a country affect its terms of trade. Changes in factor endowments may increase exports or reduce them. With tastes remaining unchanged, they may lead to changes in the terms of trade. This is explained with the help of Fig. 4 where OE is the offer curve of England and OG is the offer curve of Germany. Before any change in factor endowments, the terms of trade of England and Germany are settled at point L where they trade OC of cloth for CL of linen. Suppose there is an increase in the supply of Germany's factors of production. As a result, the new offer curve of Germany is OG_1 . At the old terms of trade OT , Germany would be at point L_1 where it would export more linen C_1L_1 and import English cloth OC_1 .

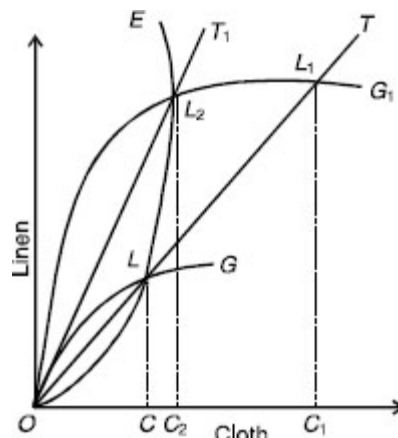
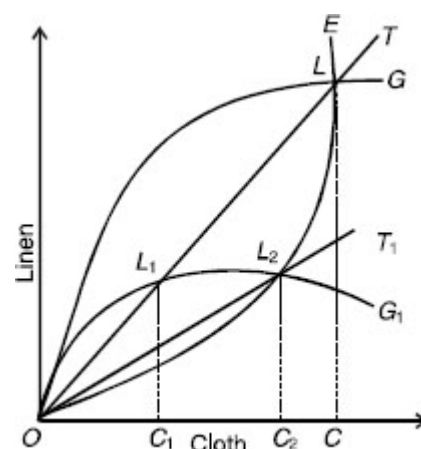


FIG. 4

But England may not be willing to trade with Germany at the old terms of trade because of its inability to produce so much cloth as its factor endowments and tastes remain unchanged. Thus the terms of trade will settle on the new terms of trade line OT_1 where England's offer curve OE intersects Germany's new offer curve OG_1 at point L_2 . At L_2 , Germany exports C_2L_2 of linen in exchange for OC_2 of cloth from England. Thus the terms of trade have moved against Germany from L to L_2 , with change in its factor endowments because it exports more linen (C_2L_2) than before (CL).

3. CHANGES IN TECHNOLOGY

Technological changes also affect the terms of trade of a country. The effect of technological change on terms of trade is illustrated in Fig. 5. Suppose there is change in technology in Germany. Before technological change the terms of trade between Germany and England are settled at point L on the OT ray where Germany exports CL of linen for OC of England cloth. With technological change, Germany's new offer curve is OG_1 which cuts the terms of



trade line OT at L_1 . At this point, Germany would like to export less linen (C_1L_1) and import less cloth (OC_1) than England wants to exchange at the terms of trade OT . So Germany's terms of trade improve when its new offer curve OG_1 intersects England's unchanged offer curve OE at L_2 where the new terms of trade are settled on the line OT_1 . At L_2 , Germany is better off because it exports less linen for more of England's cloth, i.e. $C_2L_2 < OC_2$. Its terms of trade have improved with technological change.

4. CHANGES IN TASTES

Changes in tastes of the people of a country also influence its terms of trade with another country. Suppose England's tastes shift from Germany's linen to its own cloth. In this situation, England would export less cloth to Germany and its demand for Germany's linen would also fall. Thus England's terms of trade would improve. On the contrary, a change in England's taste for Germany's linen would increase its demand and hence the terms

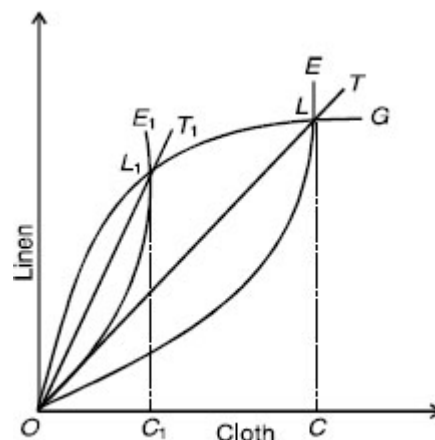


FIG. 6

of trade would deteriorate for England. The first case of an improvement in the terms of trade of England is depicted in Fig. 6. When England's tastes change from Germany's linen to its own cloth, its offer curve shifts up to OE_1 , and intersect Germany's unchanged offer curve OG at L_1 . As a result, England exports only OC_1 of cloth in exchange for C_1L_1 of Germany's linen. Obviously, England's terms of trade have improved for now it exchanges less cloth (OC_1) for more linen of Germany (C_1L_1) i.e. $OC_1 < C_1L_1$.

5. ECONOMIC GROWTH*

Economic growth is another important factor which affects the terms of trade. The raising of a country's national product or income over time is called economic growth. Given the tastes and technology in a country, an increase in its productive capacity may affect favourably or adversely its terms of trade. This is illustrated in Fig. 7 in terms of the production possibility curves and the community indifference curves of a country which experience economic growth. E_1E_1 is the production possibility curve of England before growth where the slope of T_1 shows its terms of trade. Before growth, it is producing at S_1 and consuming at C_1 on the community indifference curve CI_1 . Thus England is exporting R_1S_1 of cloth and importing R_1C_1 of linen for Germany. When growth takes place, the production possibility curve E_1E_1 shifts outward as E_2E_2 . The new terms of trade after

growth, as represented by the slope of the line T_2 , show an improvement when production takes place at point S_2 on the production possibility curve E_2E_2 and consumption at point C_2 of the community indifference curve CI_2 . As a result of the improvement in England's terms of trade, it exports less cloth to Germany in exchange for more linen than in the pre-growth situation. It exports R_2S_2 which is less than R_1S_1 and imports R_2C_2 which is greater than R_1C_1 .

6. TARIFF

An import tariff improves the terms of trade of the imposing country. This is explained with the help of Fig. 8 where the offer curves of England and Germany before the imposition of tariff are OE and OG respectively. The initial terms of trade are given by the line OT . England is exporting OC of cloth and importing CL of linen from Germany. Suppose a tariff is imposed on Germany's linen by England. It shifts the offer curve of England from OE to OE_1 . This changes the terms of trade OT to OT_1 in favour of England. Now England exports OC_1 of cloth in exchange for C_1L_1 of linen from Germany. It now exports $CC_1 = (ML_1)$ less of cloth than before and imports ML less of linen. Since the quantity of exports reduced as a result of tariff by England is greater than the quantity of imports reduced by Germany ($ML_1 < ML$), the terms of trade have definitely moved in favour of England.*

7. DEVALUATION**

Devaluation raises the domestic price of imports and reduces the foreign price of exports of a country devaluing its currency in relation to the currency of another country.

* For a detailed analysis of the effects of economic growth on terms of trade, refer to Ch. 13 also.

* For details, refer to the chapter on *Tariffs*.

** For details, study the chapter on *Devaluation*.

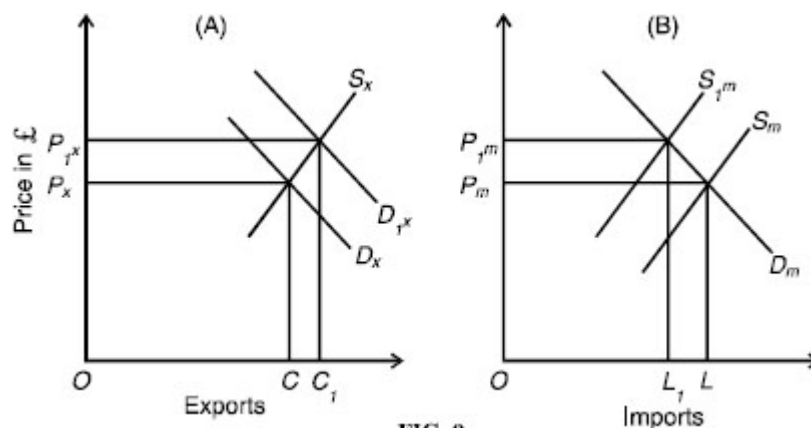


FIG. 9

The effects of devaluation on the terms of trade have been much debated among economists. According to Prof. Machlup, "Devaluation is supposed to improve the balance of trade. A reduction in the physical volume of imports in relation to the physical volume of exports constitutes an adverse change in the gross barter terms of trade." Thus devaluation will be successful only if the gross barter term become adverse. Prof. Robertson favours the use of the concept of the commodity terms of trade to assess the effects of devaluation. To him, if this concept is used, devaluation will lead to rise in the prices of imports and fall in the prices of exports in foreign currency, and hence deteriorate the commodity terms of trade. But Prof. Hirsch suggests that the right procedure should be to study price movements in exports and imports in the same currency in order to assess the true effects of devaluation. Both exports and imports prices normally rise in the home currency and fall in the foreign currency. The commodity terms of trade will deteriorate only when export prices fall more than import prices in terms of domestic currency. In reality, the elasticities of demand and supply for exports and imports of a devaluing country determine deterioration or improvement in its terms of trade. If both the foreign demand for exports and home demand for imports are highly elastic and supplies

both to home exports and foreign imports are highly inelastic to price movements, devaluation leads to an improvement in the commodity terms of trade. This is explained in Fig. 9 (A) and (B).

Suppose English £ (pound) is devalued in relation to German Mark, and the price movements before and after devaluation are taken in pound. The pre-devaluation price of OC exports is OP_x and that of OL imports is OP_m . The post-devaluation export price rises to OP_1x when the demand curve shifts upward to D_1x , and the import price rises to OP_1m with the shifting of the supply curve to the left as S_1m . A comparison of Fig. 8 (A) and (B) reveals that the export price has risen more than the import price $P_x P_1x > P_m P_1m$, and that while exports have risen from OC to OC_1 , imports have fallen from OL to OL_1 . These prove that the terms of trade have improved for England after devaluation.*

10. SUMMARY OF FACTORS AFFECTING TERMS OF TRADE**

The terms of trade (TOT) of a country are influenced by a number of factors which are explained below:

* For other factors, refer below.

** This is meant for students who find the diagrammatic explanation difficult.

1. Reciprocal Demand and Supply. The TOT of a country depends upon reciprocal demand and supply, *i.e.* the strength and elasticity of each country's demand and supply of exports and imports. When the demand for exports of a country is *less elastic* as compared to its imports, its TOT will be favourable. For its exports will fetch a higher price than its imports. On the other hand, if the demand for its imports is *less elastic* than its exports, its TOT will be unfavourable because it will have to pay a higher price for its imports.

If the supply of its exports is *more elastic* than its imports, its TOT will be unfavourable because it can increase or decrease the supply of its exports in keeping with international market conditions. The opposite will be the case when the supply of exports is less elastic. So the TOT will be favourable.

2. Change in Demand. The TOT are also influenced by the size of demand for exports and imports of a country. Other factors remaining the same, if the demand for exports increases, it will raise the prices of exportables as against the prices of importables. The TOT will be favourable. On the other hand, if the demand for importables increases, their prices will rise as against the prices of exportables, thereby worsening the TOT exportable.

3. Changes in Factor Endowments. The TOT of a country are influenced by changes in its factor endowments. With given tastes and technology, if the increase in factor supply is related to export industries, it will lead to the production of more of export goods and less of import goods. As a result, the TOT will worsen because exports of more goods will bid down their prices in world markets. Conversely, if the growth of factors produces more of import-competing goods, the TOT will improve. For the demand for import goods will fall which will bid down their relative prices in world markets.

4. Changes in Technology. Technological changes also affect the TOT of a country. If the technological changes lead to the production of more export goods, their supply will increase, prices will fall relative to its imports. It will export more than it imports. Therefore, its TOT will be unfavourable. On the contrary, if it leads to the production of more import-competing goods, its volume of world trade will be less and its TOT will improve.

5. Change in Tastes. Changes in tastes of the people of a country influence its TOT with another country. If the tastes for the products of another country increase, it leads to increase in the demand for the imported goods. Consequently, the TOT will become unfavourable, and *vice versa*.

6. Economic Growth. Another factor is economic growth which increases the country's productive capacity, welfare and income, given the tastes and technology. Economic growth affects TOT in two ways. The *first* is the *demand effects* which increases the demand for imports as a result of increase in per capita income with economic growth. The *second* is the *supply effect* which increases the supply of exportables and import-competing goods. It is the net effect of these two effects which ultimately determines the TOT of a country. If the demand effect is more powerful than the supply effect and the volume of trade increases through imports, its TOT will be unfavourable. On the other hand, if the supply effect is more powerful than the demand effect, and the country's trade volume increases through rise in exports and import-competing goods, its TOT will improve.

7. Tariffs. An import tariff improves the TOT of the tariff-imposing country. As a result of the imposition of tariff duties, imports will be reduced in relation to exports and its TOT will improve.

8. Quotas. Fixation of quotas also reduces imports and thus improves the TOT of the country fixing quotas.

9. Devaluation. By devaluation is meant a reduction of the value of domestic currency in terms of the foreign currencies. Devaluation makes imports costlier and exports cheaper in foreign markets. Thus it reduces imports and increases exports and makes the TOT favourable for the devaluing country. But the elasticities of demand and supply of exports and imports determine deterioration or improvement in its terms of trade. If both the foreign demand for exports and home demand for imports are highly *inelastic* to price movements, devaluation leads to an improvement in the terms of trade, and *vice versa*.

10. Market Conditions. A country which has got monopoly or oligopoly in the goods which it exports in the world market, but its import market is competitive, its TOT will be favourable. For it will sell its goods at a high price in the world market. If a few countries are oligopolistic and form a cartel, such as oil producing countries,

they can raise the price of oil by reducing its supply. So their TOT will improve.

11. Import Substitutes. If the country produces import-substitute goods in sufficient quantities, its import demand for such goods will be low. As a result, it will import less and its TOT will be favourable, and *vice versa*.

12. International Capital Flows. An inflow of capital from abroad in the form of capital and other goods reduces the demand for home products and exportables. As a result the prices of exportables fall relative to importables, thereby worsening the TOT of the country. On the other hand, when there is an outflow of capital to repay the debt in the form of larger exports, their prices fall which again make the TOT unfavourable for the country.

13. Balance of Payments. Deficit in BOP brings improvement in TOT because the exchange rate falls. On the other hand, a surplus in BOP worsens the TOT by raising the exchange rate of the currency.

14. Inflation and Deflation. Inflation worsens the TOT because with the rise in domestic prices. On the other hand, deflation improves the TOT because the prices of domestic goods fall, the demand for exports increases and for imports falls.

EXERCISES

1. Examine critically the various concepts of terms of trade.
2. Distinguish between Gross Barter Terms of Trade and Barter Terms of Trade or Income Terms of Trade and Net Barter Terms of Trade.
3. Discuss the factors which determine the terms of trade.
4. Name different kinds of terms of trade. Which of these concepts is most helpful in indicating 'gains from trade' and why?

5. What do you mean by Terms of Trade? Explain the determination of equilibrium terms of trade.



TERMS OF TRADE AND ECONOMIC DEVELOPMENT : SECULAR DETERIORATION HYPOTHESIS

Economists like Myint, Nurkse, Prebisch, Singer, Lewis and Myrdal maintain that certain 'disequalising forces' have been operating in the world economy as a result of which the gains from trade have gone mainly to the DCs (developed countries) leading to foreign exchange constraint.

We shall mainly discuss the Prebisch-Singer hypothesis.

1. THE PREBISCH-SINGER THESIS

The Prebisch-Singer thesis enunciates that the secular deterioration in terms of trade has been an important factor in inhibiting the growth of LDCs. The terms of trade between the peripheral (LDCs) and the cyclical centres (DCs) have shifted in favour of the latter.

ASSUMPTIONS

The Prebisch Singer thesis is based on the following assumptions.

1. On account of the operation of Engel's Law as incomes rise in DCs, the demand pattern shifts away from primary to manufactured products.

2. Demand for the primary products of LDCs rises slowly in DCs.
3. Export market for DCs' products is monopolistic and that for LDCs' products competitive.
4. Trade unions being weak in LDCs, wages are low there. So are the prices of primary products which lead to declining terms of trade.
5. Substitutes for primary products of LDCs are appearing in the world which diminish the demand for them.
6. Producers of manufactured products in DCs do not pass on the benefit of increase in productivity through lower prices in LDCs.
7. Income terms of trade is the determining factor for economic growth in LDCs.

EXPLANATION

Prebisch¹ assumes that the capacity to import or income terms of trade is the determining factor of economic growth in LDCs and the terms of trade is the most important 'conduit' for transmission of productivity gains from cyclical centres (DCs) to the peripheral countries (LDCs). His contention is that in the organic growth of the world economy, the primary producing LDCs have failed to share in the gains of this world economic growth generated by the DCs and the reason for this has been their declining capacity to import. He points out on the basis of the United Kingdom's terms of trade with the LDCs that between the 1870s and the 1930s there was secular downward trend in the prices of primary goods relative to the prices of manufactured goods. They give the following reasons for deterioration in the TOT of LDCs.

¹. R. Prebisch, *Economic Development of Latin America and Principal Problems*, 1950.

1. Technical Progress. Technical progress increases the income of workers and entrepreneurs and a high price for their goods, some of

them are exported to the LDCs. But the benefits of technical progress do not flow to the LDCs. As a result, wages of workers do not rise. Prices of their primary goods which they exports in relation to their imports fall, thereby worsening their TOT. This has been due to technical progress in raw material saving products like synthetic, jute and rubber, rayon *etc.* which have adversely affected the traditional exports of LDCs.

2. Relation between Incomes and Productivity. According to Prebisch, the incomes of entrepreneurs and productive factors increase relatively more than productivity in DCs, the increase in incomes is less than that in productivity in LDCs for two reasons:

(i) **Population Pressure.** Population pressure in LDCs due to increase in population and surplus manpower have led to the rise in labour supply which is absorbed mainly in those sectors where labour productivity is already very low. Consequently, the level of wages falls further.

(ii) **Weak Trade Unions.** Trade unions are mostly non-existent in the large unorganised sector of LDCs and where they exist, as in the organised sector, they are very weak. They are, therefore, incapable of raising wages for their workers. On the other hand, trade unions being very strong in DCs are highly successful in raising wages of their members.

3. Monopoly Elements. Another cause for deterioration in TOT of LDCs, according to Prebisch, has been monopoly elements in product markets of DCs. The DCs have a high degree of monopoly power in manufactured industrial and capital goods for which they charge high prices from LDCs. On the other hand, the world prices of primary products of LDCs are low because they are not properly organised. As a result, the TOT have remained unfavourable for the LDCs.

4. Effects of Cyclical Instability and Balance of Payments Difficulties. Prebisch points out that, after the opening up of LDCs to world markets, there has been phenomenal rise in their exports.

But this has not contributed much to the development of the rest of the economy of these countries, as the export sector has developed to the utter neglect of the other sectors of the economy. On the other hand, too much dependence on exports has exposed these economies to international fluctuations in the demand for and prices of their products. During a depression, the TOT (terms of trade) become adverse and foreign exchange earnings fall steeply. As a result, they suffer from unfavourable balance of payments. But they are unable to take advantage of a fall in prices of their products by increasing their exports due to the *inelastic* nature of supply of their export goods which are mainly agricultural and mineral products. Similarly, they are unable to benefit from a boom in world market. An improvement in their terms of trade due to a boom is not accompanied by an increase in output and employment due to market imperfections, inadequate overhead capital and structural maladjustments. On the contrary, increased export earnings lead to inflationary pressure, malallocation of investment expenditure and to balance of payments difficulties. As a result, there has been a *secular deterioration in the income terms of trade*² (or the capacity to import) of LDCs.

². They are defined as the ratio of export prices to import prices times the quantity of exports ($P_x/P_m \times Q_x$). They are a measure of the total purchasing power of exports over imports. If the terms of trade are against the LDCs, they have to pay more to DCs.

5. Effects of Foreign Investments. Singer's³ contention is that the opening of the LDCs to foreign trade and investment tended to inhibit their development since the purpose and effect of these investments have been to open up new sources of food for people and for the machines of developed countries. The specialisation of LDCs in exports of food and raw materials to industrialized countries, largely as a result of investment by the latter has been unfortunate for the LDCs for three reasons : (i) The investing countries have reaped the larger share of the cumulative multiplier effects of foreign investment as a result of heavy profit remittances abroad. (ii) It has "diverted the underdeveloped countries into types of activity offering less scope

for technical progress, internal and external economies taken by themselves...” (iii) It has led to the deterioration in the terms of the trade of LDCs.

Of the three factors, the last one has been crucial in impoverishing the LDCs because the developed countries have gained in the form of higher wages and profits by exporting manufactured articles to the LDCs at higher prices whereas the gains in food and raw material production in LDCs have been dissipated in price reductions thereby agains benefitting the developed countries. This is reflected in rapidly rising standards of living of the latter as against the former. The operation

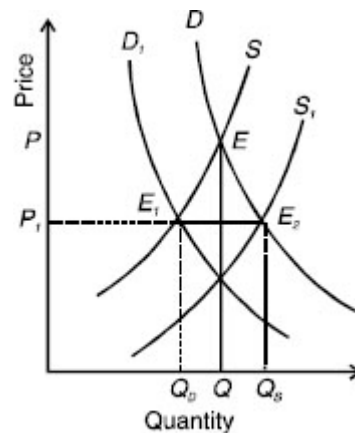


FIG. 1

of Engel’s Law has been a major factor in accentuating price differentials between the ‘peripheral’ and the ‘centre’. As incomes rise, the demand for food rises more slowly than the demand for manufactured articles. As a result of technical progress in manufacturing, there is reduction in the amount of raw materials used per unit of output. Thus the demand for raw materials falls. This fall in demand alongwith low price elasticity of demand for both raw materials and food results in large price falls, both cyclically and structurally. “At the same time, the short-run supply is said to be equally inelastic and equally subject to erratic shifts occasioned by forces of nature; a drought or disease can decimate a crop or the weather may produce a bumper harvest. Consequently, prices are said to be very volatile. In general price fluctuations in the post-war period have, however, been more often caused by changes in demand than by changes in supply.” This is illustrated in Fig. 1 where D and S represent world demand and supply curves of primary products which are inelastic. They intersect at point E and OQ quantity is demanded and supplied at OP price. A small increase in supply from S to S_1 sets the new equilibrium at point E_2 . This shows that a small increase in supply by QQ_s leads to a large fall in price by PP_1 . Similarly, a small decrease in demand from D to D_1 establishes the new equilibrium at E_1 so that a small fall in demand

by QQ_D brings about a large fall in price by PP_1 . Thus the developed countries have enjoyed beneficial cumulative effects in their dual capacity as consumers of imported food and raw materials at low prices and as producers of high-priced exportable manufactured articles, whereas the LDCs suffered both as producers of low priced food and raw materials and consumers of high-priced food and raw materials and consumers of high-priced imported manufactures.

[3.](#) H.W. Singer, "The Distribution of Gains Between Investing and Borrowing Countries," *American Economic Review*, May 1950.

According to Singer, the fairly widespread impression that this trend toward deterioration in the terms of trade of primary producers has been reversed since pre-war days has not been borne out by facts. The LDCs have failed to benefit from high prices for their primary products because they use the profits for expanding their production rather than investing them in capital goods. Conversely, when prices are low they do not have the means to industrialize, though the desire is great. Here again it seems, writes Singer, "that the under-developed countries are in danger of falling between two stools : failing to industrialize in a boom because things are as good as they are, and failing to industrialize in a slump because things are as bad as they are."

6. Debt Problems of LDCs. Another reason which Singer advances for deterioration in TOT of LDCs in recent years has been their mounting debt. *First*, a large amount of proceeds from exports are utilised to repay their debts instead of paying for imports. *Second*, to repay their debts, LDCs compete with each other to increase their export earnings.

7. Immiserising Growth^{*}. According to Bhagwati, immiserising growth in LDCs leads to deterioration in the TOT of LDCs when (i) the economy's growth leads to the production of more exportables; (ii) the demand for exports is inelastic; and (iii) growth reduces the domestic production of importables at constant commodity prices.

8. Shortage of Intermediate Products. Linder⁴ points towards the shortage of intermediate products in LDCs as the cause for deterioration in their terms of trade. Due to the shortage of such products in relation to their expanding demand, they are imported at relatively higher prices than the prices of exportables. These price differences, results in deteriorating in TOT.

9. Weak Bargaining Power. Most of the primary products exported by LDCs to DCs are perishable. So they have to accept the conditions laid down by the DCs because of their weak bargaining power. The price and quantity conditions for exports are always against the LDCs which leads to worsening of their TOT.

10. Lack of Adaptability in Production. The raw materials and agricultural products of LDCs lack in adaptability to their world prices. When their world prices start declining the producers of primary products cannot switch over production to some other goods whose prices are not decreasing. This leads to deteriorating in their TOT.

11. Dependence on DCs. LDCs depend on DCs for capital equipment, machinery and knowhow for their development of import-substitution industries and infrastructure. These are supplied at high prices as compared to their export prices which worsen their TOT.

Conclusion. Thus the LDCs have not only failed to share in the productivity gains because of population pressures, technological backwardness, monopoly elements, debt problems and for the principal reason that their economic activity is dominated by the cycles of industrial activity in the developed countries.

* This and the next points are not to be given if the question relates to the Prebisch-Singer Hypothesis

⁴ S. B. Linder, *Trade and Trade Policy for Development*, 1967.

CRITICISMS

Economists have severely criticised the Prebisch-Singer secular deterioration thesis both for its statistical and analytical arguments.

1. Faulty TOT Index. The thesis is based entirely on the 'inverse' of the new annual index of the United Kingdom's commodity TOT. This is a weak statistical base for the generalisation that historically the TOT of LDCs have deteriorated between 1870 and 1930. Certain *objections* are advanced against the TOT index. *First*, this index does not take into account *quality changes in products* and makes little allowance for new products. This introduces a bias against primary products which remain almost unchanged in quality and in favour of industrial products which are improved in quality and range. *Second*, the TOT index *leaves out services*. In the British TOT import prices are taken *c.i.f.* and export prices *f.o.b.*, so transport costs are covered in import prices and excluded in export prices. Even if transport costs change, the TOT of one country cannot be regarded as an accurate index of the TOT of the other. Thus any computation that omits services like transport costs will naturally be biased against the LDCs. *Third*, the thesis is a generalisation based on the British TOT which cannot be taken as representative of other developed countries. Kindleberger⁵ has proved on the basis of his computation of indices for other European countries that the generalisations based on the TOT of the United Kingdom do not hold good for other DCs. *Fourth*, even taking the TOT of the United Kingdom as representative of the DCs, the import-price index is a mixed bag concealing different price trends in foodstuffs, minerals and raw materials. *Fifth*, the commodity terms of trade between primary products and manufactured articles are not the same as between LDCs and DCs. *Last*, it is not correct to move on the presumption that the prices of different primary products like foodstuffs, minerals, raw materials all move together because the LDCs export varied primary products. It is, therefore, wrong to group them together for the purpose of this thesis. Haberler asks in this connection, "Can any one seriously maintain that the long-run change in the terms of trade is the same for : (a) agricultural exporters (Argentina, Uruguay), (b) mining countries (Bolivia), (c) coffee exporters (Brazil), and (d) petroleum exporters (Venezuela)?"

2. Not Supported by Empirical Evidence. The secular deterioration thesis has not been proved correct by modern researches made by Kindleberger, Ellsworth, Morgan, Haberler and Lipsey.⁶ Lipsey concludes in his study thus, “Two widely held beliefs regarding net barter terms of trade found no confirmation in the data for the United States. One is that there has been a substantial long-term improvement in the terms of trade of developed countries, including the United States; the other, that there has been a significant long-term deterioration in the terms of trade of primary as compared to manufactured products. Although there have been very large swings in US terms of trade since 1879, no long-run trend has emerged. The average level of US terms of trade since World War II has been almost the same as before World War I.”

3. LDCs also Export Manufactures. It is not correct to identify that all LDCs export primary products and all developed countries export manufactures because there are many LDCs like India that also export manufactures, and developed countries like Australia and Denmark also export primary products.

4. Monopolistic Elements in DCs not Proved. The argument that monopolistic elements in the DCs have kept the benefits of technical progress with themselves and have hurt the producers of primary products in LDCs, has not been proved by any empirical evidence.

5. Engel's Law not Applicable to Raw Materials. The contention that the operation of Engel's Law tends to reduce secularly the demand of developed countries for primary products has been exaggerated because this law applies to food and not to raw materials. Moreover, “relative prices depend not only on demand but also on supply conditions which are likely to change profoundly over long periods.”

6. Neglect of Supply Conditions. The Prebisch-Singer thesis discusses only demand conditions and ignores supply conditions in determining TOT. But relative prices depends not only on demand but also on supply conditions which are likely to change much over long periods.

7. LDCs Benefit from Foreign Investments. According to Freddie Mehta⁷, the terms of trade is not the most important determinant of economic development. Though productivity gains have not been passed on the LDCs in the form of low priced manufactures, yet they have been passed on to them in the form of 'product improvement', 'product inventions' and 'product diversification'. They have actually benefitted from foreign investments.

⁵ C.P. Kindleberger, *The Terms of Trade : A European Case Study*, 1956.

⁶ C.P. Kindleberger, *ibid*.; P.T. Ellsworth, "The Terms of Trade between Primary Producing and Industrial Countries," *Inter-American Economic Affairs*, Summer 1956; T. Morgan, "The Long-Run Terms of Trade between Agricultural and Manufacturing." *Econometrica*, 1957; G. Haberler, *International Trade and Economic Development*, 1959; and R.E. Lipsey, *Price and Quantity Trends in the Foreign Trade of the US*, 1963.

⁷ F.A. Mehta, "The Effects of Adverse Income Terms of Trade on the Secular Growth of Under-developed Countries", *I.E.J.*, Jan. 1957.

8. Not Possible to Assess Changes in Demand of Primary Products. It is unreasonable to infer from the conditions of 1870 to 1930 that there has been a secular deterioration in the TOT of LDCs due to the declining world demand for their primary products. Tremendous changes have taken place in methods of production and transportation in world production and trade, and in world population and standards of living since 1870. It is, therefore, not possible to assess their impact on the changes in demand for primary products and on TOT.

9. Export Instability not due to Price Changes Alone. According to MacBean⁸, export instability in LDCs seems to arise from quantity fluctuations than from changes in prices. This suggests that policies which aim solely at price stabilisation may remove relatively little of the export instability and in some cases may even increase fluctuations in total proceeds.

10. Foreign Investment not the Cause. There is no empirical evidence to prove Singer's contention that the development of the

export sector has been at the expense of the domestic sector. Foreign investment and trade have not always stood in the way of domestic investment. Nevertheless, as pointed out by Nurkse, “even unsteady growth through foreign trade is surely better than no growth at all.”

11. Weak Policy Measures. As a policy measure, Prebisch suggest protection while Singer favours better utilisation of foreign capital. There is no dispute with regard to Singer’s suggestion, but Prebisch has been severely criticised for his protectionism. Myrdal doubts that the LDCs possess sufficient monopoly or monopsony power to improve their terms of trade by imposing import or export duties. Even if they were to have monopolistic co-operation, the gain would be short-lived because it could be negated by retaliatory measures or by changes in the value of the demand and supply elasticities.⁹ The policy measures are weak because they fail to emphasize the importance of export promotion, import substitution and monetary and fiscal measures to correct the terms of trade.

Conclusion. Discussions have been going on among economists about deterioration or other wise of the TOT of LDCs. Two UNCTAD studies between 1950-1961 and 1960-1973 show a relative decline in TOT of LDCs in relation to DCs. Similarly, Thirlwall and Bergevin in their study between 1973-82 for all primary commodity exports from LDCs have shown 0.36% annual trend deterioration in their TOT. Singer and Sarkar analyse the TOT for export of *manufactures* by LDCs *vis-a-vis* DCs from 1970-87 and find that the decline in their TOT has been approximately 1% per annum. “It appears, therefore, that the developing countries suffer double jeopardy. Not only do the prices of their primary products decline relative to manufactured goods, but also the prices of these manufactured exports decline relative to those of developed countries, reflecting, no doubt, the commodity composition of their exports.”¹⁰ There is little doubt that over the decade of the 1980s, world prices of primary products fell sharply and the terms of trade of LDCs declined between 1980-93, as revealed by the World Development Report, 1995. We may conclude with Streeten that there are still forces at work that for an

uneven distribution of gains from trade and economic progress generally, so that the lion's share goes to the lions, while the poor lambs themselves are swallowed up in the process.

ADVERSE EFFECTS OF DETERIORATION IN TOT

The deterioration in the TOT of LDCs led to the following harmful effects on their economies:

[8.](#) A.I. MacBean, *Export Instability and Economic Development*, 1966.

[9.](#) G. Myrdal, *An International Economy*, 1955.

[10.](#) A.P. Thirlwall, *Growth and Development*, 5/e, 1994.

1. Decline in Import Capacity. With the fall in the prices of exportables of LDCs *vis-a-vis* DCs, the capacity to import goods has been declining with the result that they are faced with balance of payments problems and rising external debts.

2. High Balance of Payments Deficits. The deterioration in TOT of LDCs has led to declining export earnings as against their rising import bills. Consequently, their balance of payments deficits have widened.

3. Mounting Debts. The worsening of the TOT has tended to increase the foreign debt obligations of LDCs. To repay the debt and interest, they are required to increase their export earnings, which they cannot increase due to their weak bargaining power with DCs. So they resort to more borrowings which further worsen their TOT. Thus they are caught in a vicious circle thereby entering into a debt trap.

4. Retard Development. High balance of payments deficits and mounting debts lead to huge fiscal deficits because LDCs are not in a position to meet their development and non-development expenditures. They, in turn, bring inflationary pressures. Thus

deteriorating TOT retard the process of economic development of LDCs.

EXERCISES

1. Examine the validity of the theory of secular deterioration of terms of trade of under-developed countries.
2. Discuss the Prebisch-Singer secular deterioration of terms of trade hypothesis in relation to under-developed countries.

PART TWO

COMMERCIAL POLICY



FREE TRADE VERSUS PROTECTION

1. FREE TRADE

MEANING

Free trade policy refers to a trade policy without any tariffs, quantitative restrictions and other devices obstructing the movement of goods between countries. Prof. Jagdish Bhagwati defines free trade policy, “as absence of tariffs, quotas, exchange restrictions, taxes and subsidies on production, factor use and consumption”.¹ This is an exhaustive definition. Prof. Lipsey gives a very simple definition. According to him, “A world of FREE TRADE would be one with no tariffs and no restrictions of any kind on importing or exporting. In such a world, a country would import all those commodities that it could buy from abroad at a delivered price lower than the cost of producing them at home.” Thus the policy of free trade means simply complete freedom of international trade without any restrictions on the movement of goods between countries. However, there is an exception. Import duties can be levied for revenue and not for protection even under free trade. This can be understood with the help of an example. If the government levies a

duty of 15 per cent on all imports, all foreign goods which enjoy a cost and trade will continue as usual. But if even a simple foreign good enjoys a cost advantage of less than 15 per cent, it means the end free trade and import duty is for protection and not for revenue alone. Thus a country following the free trade policy levies import duties which are lower than the cost advantage enjoyed by the lowest cost foreign good.

THE CASE FOR FREE TRADE

The classical economists were in favour of the free trade policy. Of the modern economist, Haberler² advanced the following arguments in favour of free trade.

1. Maximisation of Output. The case for free trade arises from the theory of comparative advantage which states that a country specialises in the production of those commodities in which it possesses greater comparative advantage or least comparative disadvantage. Therefore, under free trade a country specialises in the production of those commodities which it is relatively best suited to produce and exports them in exchange for those imports which it can obtain more cheaply. This maximises the output of all the participating countries because all gain from trade which, in turn, increases the real national income of the world economy. Thus free trade leads to the maximisation of output income and employment.

¹. *International Trade*, 1986, p. 10.

². Haberler, *op. cit.*, Ch. XIV.

2. Optimum Utilisation of Resources. Free trade leads to international specialisation and geographical and territorial division of labour. Each country specialises in the production of those goods for which it has abundant supply of natural resources. As a result, the existing resources in each trading country are employed more productively and the resource allocation becomes more efficient. There is more efficient utilisation of factors within a firm or industry.

Thus international trade and division of labour leads to optimum utilisation of resources.

3. Optimisation of Consumption. Free trade secures the optimisation of consumption. In other words, it benefits the consumers when they are able to buy a variety of commodities from abroad at the minimum possible prices. This, in turn, has the effect of raising their standard of living.

4. High Factor Incomes. Under free trade, there is perfect mobility of factor of production. They can move from one place to another and between countries in order to earn more. Thus such factor incomes as wages, interests, rents and profits are high under free trade. There is increase in the real income of the world economy and of its participant countries.

5. Educative Value. According to Haberler, free trade has an educative value. International competition encourages home producers to sacrifice leisure in order to increase productivity. For this, they innovate and bring improvements in organisation and methods of production.

6. Wide Markets. Free trade leads to wide extent of markets for goods. As the demand for goods is not confined to one country but to a number of countries, the entire world becomes the market for all types of goods. This leads to the production of quality goods at low prices because of world competition.

7. Prevents Monopolies. Free trade prevents the establishment of monopolies. Under free trade each country specialises in the production of a few commodities, and the firms or industries are of the optimum size so that the cost of production of each commodity is the minimum. Thus free trade ensures a lower price for exports as well as imports and the price mechanism under perfect competition prevents the formation of monopolies.

8. Encourages Inventions. Free competition and trade encourage nations to produce the best and the cheapest products in order to

gain more. It stimulates them to invent new techniques and processes of production, to find new markets, new sources of raw materials, *etc.*

9. Develops Transport and Communications. Free trade encourages the development of the means of transport and communications not only within countries but also among countries. Rail, road, sea and air transport systems expand with better and more cargo facilities which move safely and quickly globally. The development of internet, E-Mail and E-Commerce has been possible due to more freed trade globally.

10. Promotes International Co-operation. Free trade also promotes international co-operation among nations. To solve bilateral and multilateral trade problems, different countries come into contact with each other, hold trade talks with among each other. International organisations like WTO are meant to solve trade problems and promote international co-operation.

11. Best Policy for Economic Development. Haberler points out that “substantial free trade with marginal, insubstantial corrections and deviations is the best policy from the point of view of economic development.” Besides, the direct gains of free trade noted above, free trade fosters development in the following ways : (a) it leads to the importation of capital goods, and raw materials; (b) it instills new ideas, and brings technical knowhow, skills, managerial talents and entrepreneurship to the developing countries; (c) it facilitates the flow of foreign capital; and *Lastly*, it fosters healthy competition and checks inefficient and exploitative monopolies.

THE CASE AGAINST FREE TRADE

The policy of free trade, with all its advantages noted above, was abandoned after the Great Depression by the countries of the world. There are certain theoretical and practical difficulties in following the free trade policy.

1. Laissez Faire and Perfect Competition do not Exist. Free trade presupposes the existence of laissez-faire and the working of price mechanism under perfect competition. But these conditions do not exist in the present day world. Monopoly, monopsony, cartels, imperfect labour markets and tariffs led to the abandonment of free trade.

2. One-sided Development. Under the policy of free trade, some industries expand in which the country possesses comparative advantage but other industries are not developed. An agricultural country may develop only agriculture and neglect the industrial sector. Or, one type of industries may be developed while others may remain undeveloped. This naturally leads to the one-sided development of the economy.

3. Production of Inferior and Harmful Goods. There being no restrictions on the movement of goods under free trade, substandard and harmful commodities are likely to be produced and traded. This leads to diminution of social welfare. Trade restrictions on the import of such commodities become necessary.

4. Cut-throat Competition and Dumping. Countries with better factor endowments are able to produce certain commodities cheaper than others. This led to cut-throat competition in the world market under free trade. So certain countries like Japan resorted to the policy of dumping whereby they would sell huge quantities of their products at rock-bottom prices in the foreign markets. Naturally, this policy led to the imposition of trade restrictions.

5. Emergence of Multinational Corporations and Monopolies. Free trade leads to the emergence of international monopolies and local monopolies, according to Haberler. Such monopolies developed with the spread of multinational corporation under free trade which proved harmful to the other countries and the domestic interests. This factor also led to the adoption of the policy of protection.

6. Exploitation and Colonisation of Countries. Economists do not agree with Haberler that the free trade policy helps in the development of under-developed countries. Rather, this policy led to the exploitation and colonisation of countries during the 19th and early 20th centuries.

7. Economic Dependence. Free trade leads to economic dependence which is harmful for a backward country. Such a country has to depend on the imports of varied types of consumers and capital goods, raw materials, *etc.* On developed countries both in war and peace.

8. Trade Cycles. Free trade leads to international business fluctuations. Booms and depressions spread among countries. But the danger of depression is more as was the case of the Great Depression of the 1930s. Depression in America spread to the whole world, except Russia which was a closed economy at that time.

2. PROTECTION

MEANING

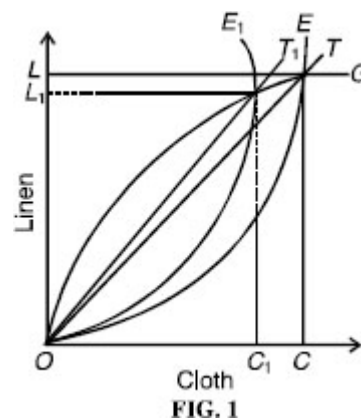
The term protection refers to a policy whereby domestic industries are to be protected from foreign competition. The aim is to impose restrictions on the imports of low-priced products in order to encourage domestic industries, may be protected by imposing import duties which raise the price of foreign goods by more than the price of domestic goods. Or, they may be protected by quotas or other non-tariff restrictions which make imports of cheap foreign goods difficult or impossible. Or, the domestic industries may be paid subsidies, or bounties to enable them to compete with cheap foreign goods.

ARGUMENTS FOR PROTECTION

Haberler has divided the arguments for protection into two groups: economic and non-economic. We discuss these one by one.

A. Economic Arguments. The economic arguments which are usually given in favour of protection are :

1. Terms of Trade Argument. The terms of trade argument is given to correct disequilibrium in the balance of payments of a country. It is argued that the imposition of a tariff on imports improves the rate at which the country's exports are exchanged for imports. This means that a tariff improves its terms of trade because the foreign exporter is forced to pay some part of the import duty. The extent to which a country can improve its terms of trade



by imposing import duty will depend upon the relative demand and supply elasticities at home and abroad. A country which imports a large quantity of a particular commodity, whose demand is less elastic, will be in a better position to impose a tariff duty and improve its terms of trade than a country which imports a small quantity of a given commodity whose demand is elastic.* The improvement in the terms of trade by imposing tariff is illustrated in Fig. 1. In the figure, the offer curves of England and Germany before the imposition of tariff are OE and OG respectively. The initial terms of trade are given by the line OT . England is exporting OC of cloth and importing OL of linen from Germany. Suppose a tariff is imposed on Germany's linen by England. It shifts the offer curve of England from OE to OE_1 . This changes the terms of trade from OT to OT_1 in favour of England. Now England exports OC_1 of cloth in exchange for OL_1 of linen from Germany. It now exports CC_1 less of cloth than before and imports LL_1 less of linen. Since the quantity of exports reduced as a result of tariff by England is greater than the quantity of imports reduced by Germany ($CC_1 > LL_1$), the terms of trade have definitely moved in favour of England.

However, there are certain adverse effects on the tariff imposing country, *First*, the term of trade may improve but the volume to trade of the tariff-imposing country is reduced. *Second*, the imposition of

tariff increases the price of the imported commodity to the domestic consumer. *Third*, it may lead to retaliation by the other country. Thus too high a tariff leads to reduction in consumers' satisfaction, mal-allocation of domestic resources with the reduction in the volume of trade, and retaliatory tariffs harm the economies of both the countries.

2. Bargaining or Retaliation Arguments. It is argued that the imposition of tariffs is necessary to bargain in trade negotiations with other countries. Since international trade is based on reciprocal basis, tariff is used as a weapon to persuade or dissuade the other country to lower its tariff wall. Thus the fear of retaliation may induce countries to give reciprocal concessions to each other.

But the bargaining argument for protection is not sound on many counts. *First, tariffs as a weapon for bargaining may lead to retaliation on the part of the other country, thereby harming both the countries. Second*, vested interests may be created in the country which may be so powerful that they may not allow reduction in tariffs and reciprocal bargaining. *Third*, retaliation may lead to economic sanctions between countries and to rivalry. *Fourth*, it may lead to the shrinkage of world trade.

* The following explanation is for higher classes.

3. Anti-dumping Argument. Protection is advocated against the practice of dumping. Dumping means selling a product in a foreign market at a lower price than in the home market, after taking into account transport and other costs of transfer. Dumping aims at flooding a foreign market with low-priced commodities. As a result, the import competing firms are ruined. To protect such firms, a high tariff is imposed. This will raise the price of the product in the importing country and removes the threat of dumping.

4. Diversification Argument. Another argument advanced in support of protection is to diversify the domestic industries. It means that there should be a balanced growth of the economy so that all

the sectors of the economy develop side by side. For this purpose, agriculture and manufacturing industries should be protected from foreign competition. This is a valid argument, for experience has shown that countries which are not developed in a balanced way are affected more by international economic disturbance, such as crop failures, depressions, inflations, wars, *etc.* Therefore, they should diversify and become self-sufficient by protecting their industries. But it is not possible to diversify completely and attain self-sufficiency even by the richest country of the world. In fact, no country has all resources for a balanced growth of the economy. It has to depend upon other countries in one way or the other. Moreover, protection is not the only means to diversify an economy.

5. Infant Industry Argument. The infant industry argument is the oldest and the most accepted argument for protection. It was formulated by Alexander Hamilton in 1790 and was popularised by Friedrich List in 1885. This argument “rests on the assumption that the country has a latent comparative advantage in the industry or group of industries to be protected.” It is, therefore, argued that if industries in their infancy are not protected from established foreign producers, they must attain the optimum size so as to operate most efficiently and competitively and to produce at lower costs. Protection is also needed to facilitate the flow of resources into infant industries, even though consumers have to bear the burden of higher prices temporarily. Further, there may be “imperfection of the information flow” to infant industries in the form of difficulty to borrow funds for investment, knowledge of infrastructure facilities, labour market, *etc.* All these requires government protection to such industries. The economic justification lies in that social benefits exceed private benefits from investment in such industries. It means that the protection should be given to those infant industries which generate larger externalities than other industries not given protection. Moreover, infant industries require time to undergo the process of learning-by-doing to become competitive in the long-run. Therefore, they should be protected. Johnson regards the infant industry arguments as being explicitly dynamic arguments ‘for temporary intervention of correct transient distortion.’³ So infant

industries need protection for a while so that they may grow without any threat from foreign producers. When they attain adulthood, protection can be withdrawn and then they should be left free to face foreign competition.

3. H.G. Johnson, "Optimal Trade Interventions in the Presence of Temporary Distortions," in R.E. Baldwin (ed.), *Trade, Growth and Balance of Payments : Essays in Honour of G. Haberler*, 1966.

The case for infant industry protection is based on the argument that when a new industry is started, it cannot reap the economies of scale and its cost of production is high as compared with its foreign competitors. But if it is protected by providing all types of facilities, such as subsidies, heavy import duties on foreign goods. etc . it may expand and enjoy internal economies of scale. It may, in turn, lead to external economies for all firms within the industry in the form of lower costs of production through the availability of trained labour force, advanced production techniques, research facilities, *etc*. If infant industry protection is given to several industries simultaneously, several external economies accrue in the form of road, railway, power, technical and research facilities, *etc*. Moreover, protection to infant industry, leads to its expansion and a lowering of costs and prices which, in turn, benefits industries using the products of the protected industry. But protection results in lowering of welfare because a tariff increases production and consumption costs in the economy. Therefore, to increase social welfare, the infant industry must be protected and pass what is called *Mill's test*. This test requires that it should be protected temporarily and must grow up and be able to compete on equal terms at world market prices with foreign producers in domestic and world markets. For protection to be profitable, it should be able to pay back the losses incurred due to protection during the infancy period. After that, protection should be withdrawn. But Bastable suggested another test called *Bastable's test* which an infant industry must also pass. This test requires that the infant industry must be able to cover the costs of protection during its infancy by lowering production costs. If an industry passes

these two tests, then only it should be given infant industry protection.*

The infant industry argument for protection is illustrated in Fig. 2. Suppose the production possibility curve of a *small country* is SS . Under free trade, the TOT (international terms of trade) line T_1T_1 which is tangent to the SS curve at point P_1 . Where the country produces the two commodities exportable wheat and importable cloth. After exporting some wheat, it consumes the two commodities at point E_1 on the community indifference curve CI_1 . In order to protect its infant cloth

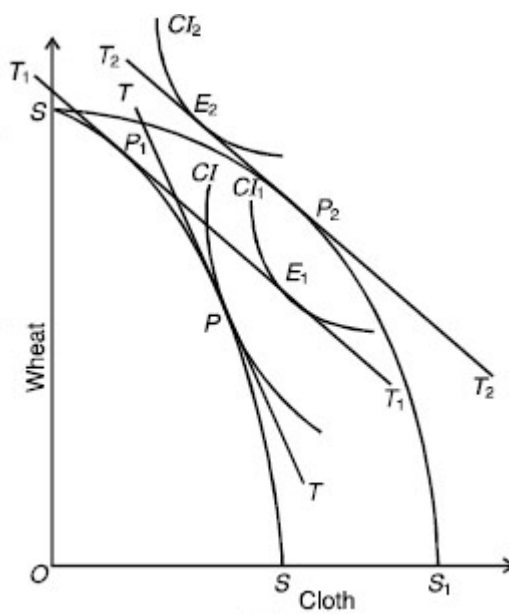


FIG. .2

industry, the country imposes a prohibitive tariff on the imports of cloth. This import tariff changes its TOT in favour of cloth, as represented by the line TT . This line is tangent to the SS curve and the CI curve at point P so that the country produces and consumes the two commodities at this point. But despite the imposition of tariff on imported cloth, the country is at a lower level of welfare because the curve CI is below CI_1 curve. There is loss in community welfare. But this is only a short-run situation. In the long run, protection increases the production of cloth. This enables the cloth industry to reap the available internal economies and to increase in its productive capacity. This shifts outward the production possibility curve SS to SS_1 but without any expansion in wheat. When the infant cotton industry grows and is in a position to face foreign competition, the country removes the tariff and returns to free trade. Assuming that the same international TOT prevail as before, with the imposition of tariff, the new TOT is T_2T_2 (parallel to T_1T_1) which is tangent to the production possibility curve at P_2 where the country produces both wheat and cloth. But it exports cloth and consumes both commodities at point E_2 on the CI_2 curve. Now the country is at a

higher level of welfare when compared with the earlier free trade situation because the curve CI_2 is above the CI_1 curve. It may be noted that protection to the cloth industry may continue for many years before it grows and becomes competitive. Thus the infant industry needs protection for a specified period of time till it is able to face foreign competition. It is then that the tariff should be withdrawn and at the same time the increase in community welfare should be more than compensate for the loss in the earlier years so that there are *net benefits* to the community.

* The following explanation is for higher classes.

Its Criticisms. The infant industry argument for protection has been severely criticised by economists on the following grounds :

1. Difficult Decision. It is difficult to decide which industry needs protection because every industry is in its infancy to begin with. In fact, it is difficult to select genuine infant industries because it requires “forecasting the potential cost structure of an industry, and its established competition.”

2. Lack of Reliable Criteria. Protection is given to an infant industry with the promise that it would be withdrawn after a few years when the industry attains adulthood and is able to face foreign competition. But it is difficult to decide about this due to the lack of any reliable criteria.

3. Vested Interests. Once protection is granted to an industry, vested interests are created which do not want the removal of duties. Thus as pointed out by Haberler, “temporary infant-industry duties are transformed into permanent duties to preserve the industries they protect.”

4. Difficult to Remove Duties. Even if a part of the industry is able to stand upon its feet, a number of less efficient concerns are established behind the shelter of tariffs which make it difficult to remove the duties.

5. Monopoly Profits. Some of the industrialists who start making monopoly profits under protection do not want the removal of duties. They, therefore, bribe the legislators and corrupt the general politics of the country.

6. External Economies do not Exist. Haberler does not agree with the view that the development of infant industries leads to internal and external economies of production. He has shown that alleged possibilities of external economies under infant industry protection are vague, muddled and doubtful “so that arguments for tariffs based upon them belong to *curiosa* of theory rather than to a practical economy theory.”

LDCs AND INFANT INDUSTRY ARGUMENT*

The infant industry argument for protection is generally applicable to LDCs. LDCs can have potential comparative advantage in one particular commodity. But due to small initial level of production and lack of knowledge, the initial production costs of the industry are very high. As a result, such an industry cannot be developed in the face of foreign competition. Therefore, it becomes necessary for an LDC to impose tariff in order to establish and give protection to an industry in its infancy. Such protection is justified so long as

the industry does not develop in size and efficiency to such a level as to compete with foreign competitors. This is explained in Fig. 3 where OP_w is the world price of that commodity in which the LDC has a potential comparative advantage. But in the beginning, the production cost of this commodity is OP_L in LDC which is higher than the world price OP_w . That is why this industry cannot be established or developed without protection in LDC against foreign competition.

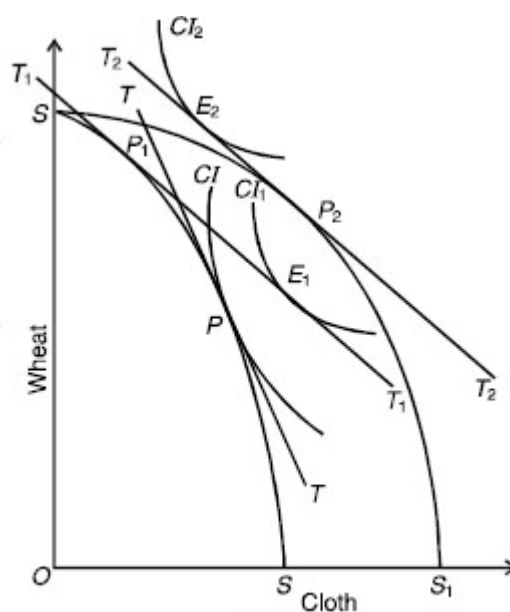


FIG. 2

Therefore, to protect this industry, import tariff higher than $P_w - P_L$ on this commodity can be imposed. When the infant industry expands in the long run, production increases and the industry reaps the economies of large scale production which reduces the production cost of the industry as shown in the figure from OQ_1 quantity onwards. When the industry expands further, its output OQ_2 equals the world price at point E . The protection on the industry can be removed now. After point E , the production cost being lower than the world price, the LDC can export this commodity.

* This is for higher classes.

The infant industry argument explained above is meant to encourage domestic production of the commodity. It is based on the argument that *Nurse the baby, protect the child and free the adult*. It means that unless an industry becomes capable of competing with foreign producers, protection should not be removed. But when it is able to face foreign competition, protection should be withdrawn. But the experience is that once protection is given to an industry, it likes to remain an infant industry for ever. Again, when an industry is protected through import tariff, it becomes difficult to remove it.* Therefore, economists prefer production subsidy to an import tariff. *First*, A subsidy is superior to a tariff because it leads to more consumption at point E_1 on the CI_1 curve than at point P on CI curve in Fig. 2. *Second*, if there is a properly functioning capital market, the profitability of the protected industry may lead to long term investment in it. *Third*, a subsidy can be reviewed every year, being a part of the annual government budget. *Fourth*, a subsidy can be raised or reduced according to the requirements of the protected industry without distorting relative prices and domestic consumption. But these arguments against an import tariff do not hold ground in LDCs because they lack a developed capital market, and even necessary knowhow to operate an infant industry. Moreover, a subsidy is a big burden on the taxrevenue system, while a tariff brings much needed revenue to the government. In the light of the

above arguments, it can be concluded that the infant industry argument is suited for LDCs.

6. Sunset Industries Argument. This is a very recent argument for protection which has emerged in Europe. From the 1970s onwards, some established labour-intensive industries such as producing steel products, textiles, clothing, footwear, *etc.* have been losing competitiveness to Japan, Taiwan, Malaysia, Korea, India and other East Asian countries. This argument implies that sun is setting on such mature industries of Europe which should be granted temporary protection so that they may be able “to re-equip and regain competitiveness”. In the absence of protection, it will lead to displacement of labour and capital in such industries. This has actually led to the imposition of import tariffs on textiles, clothing, footwear and such products in the European Countries. However, critics point out that is a political argument to solve the unemployment problem in such countries. Moreover, once protection is granted to such industries, it is difficult to remove tariffs.

7. Socially Important or Key Industries Argument. Protection should be given to socially important industries such as agriculture or strategically important industries as iron and steel, heavy electricals, machine making, heavy chemicals, *etc.* There is no dispute over this argument because the development of key and other socially important industries under protective tariffs is one of the principal aims of trade policy in a country.

* For other points of criticism, refer to the previous page.

8. Employment Argument. A usual argument for protection is that it is a cure for unemployment. The imposition of a tariff reduces imports and encourages employment directly in import competing industries. This, in turn, generates employment in other industries dependent upon this import-competing industry and may even spread to import-substitution industries. According to Prof. Haberler, unemployment in one single industry can be reduced by a tariff on the competing imports provided the demand for its products is *not*

completely elastic and its products compete with similar imported products. But this does not mean that total unemployment will diminish.**

The critics argue that a tariff is not likely to reduce unemployment because a restriction of imports will lead to reduction of exports. While unemployment may be reduced in import-competing industries, it will increase in exports industries. As pointed by Keynes, “If a reduction of imports causes almost at once a more or less equal reduction of exports—obviously a tariff . . . would be completely futile for the purposes of arguing employment.”

Keynes gave two arguments to show that a protective tariff might lead to increase in employment, provided exports are maintained at the old level, *First*, if the tariff-imposing country lends to foreign countries, its exports can be maintained at the old level, and the increase in the employment in the import-competing industries will not be offset by reduction in employment in export industries. *Second*, exports can be maintained at the old level, if subsidies are given to export industries out of the revenue from import duties.

But critics do not agree with Keynes on the adoption of these methods. They argue that lending to other countries would divert capital resources from home investment which would reduce domestic investment, thereby reducing total employment in the country. On the other hand, the grant of subsidies to export industries would lead to retaliation by other countries which would levy anti-dumping duties. Thus, it is not possible to increase employment by imposing a protective tariff.

Prof. Haberler has analysed the *effect of tariffs* on the various types of unemployment. *First*, unemployment may be frictional which arises from changes in the industrial structure as a result of the adoption of new investments and methods of production. Such technological unemployment can be removed by imposing a new tariff duty on imports only in the case of one industry, but not in the case of the entire industrial structure of the economy. Therefore, technological unemployment can be removed by protection, for it

“involves the abandoning of all the fruits of technical progress, in so far as they can be enjoyed only through the medium of international division of labour.” *Second*, unemployment may be due to the cyclical fluctuations of the industry. Cyclical unemployment can be reduced by a new tariff duty on one industry but not in the case of numerous industries and countries. Heavy protection in America in the 1930s failed to prevent crises and depression. As pointed out by Heberler, “Whether a country has high or low tariff has nothing to do with the acuteness of its crises and depression.” *Third*, there may be permanent unemployment which can again be removed by the imposition of a new tariff duty in the case of one industry but not for the entire economy. However, only high tariffs can cure permanent unemployment if it is due to very high wages. But high tariffs lead to retaliation. Under the circumstances, it is not high tariffs but readjustment of wages are needed to cure permanent unemployment. Haberler concludes that “leaving aside a few exceptional cases, a favourable result can be expected only in the short-run, so that tariffs can be advocated on this ground only from a short-run, and indeed, short-sighted, standpoint.

* The following paras are for higher classes.

9. Balance of Payments Arguments. This is one of the important arguments for protection, especially by LDCs. Tariffs help in restricting the imports of unnecessary goods and try to reduce the balance of payments deficit. They assist in conserving foreign exchange which can be used for importing essential goods and services for import-substitution industries and for the export sector. The expansion of the import-substitution and export sectors, in turn, raises employment and income in the country. And the increase in income increases savings and the supply of loanable funds which reduce the interest rate and encourage investment. Consequently, more employment and income are generated.*

In fact, both developed and less developed countries have used tariffs as an effective instrument to reduce their balance of payments deficits. This is illustrated in Fig. 4 where D is the domestic demand

curve and S the domestic supply curve of importables. OP is the constant world price at which the importers are prepared to sell their commodities in the domestic market. Thus the horizontal line PB is the supply curve of imports which is perfectly elastic at OP price. Under free trade (before the imposition of a tariff) the equilibrium market position is given by point B where the domestic demand curve D intersects

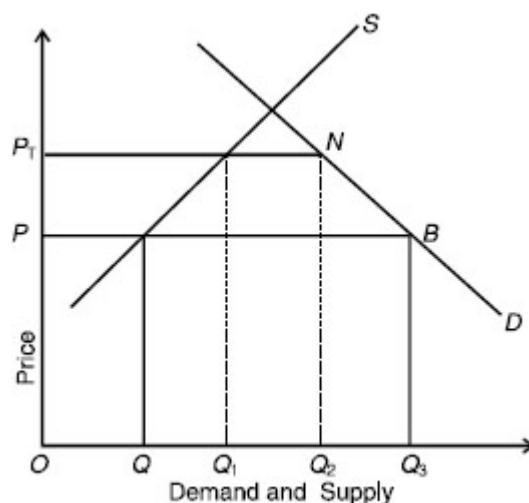


FIG. 4

the world supply curve PB at price OP . The total demand for importables is OQ_3 . The domestic supply is OQ . The difference between domestic demand and domestic supply is QQ_3 . The imposition of a tariff by PP_T amount raises the domestic price to OP_T and reduces the deficit from QQ_3 to Q_1Q_2 because domestic demand is OQ_2 and domestic supply is OQ_1 and $OQ_2 - OQ_1 = Q_1Q_2$.

But when the export surplus increases employment and income in one country, the import surplus in the other country reduces employment and income there. *Second*, such a policy will lead to retaliation by the other country. *Third*, this policy adversely affects the volume of world trade, and international specialisation suffers. Therefore, Johnson does not regard the imposition of tariffs to reduce balance of payments deficit as an optimum policy and prefers a cut in domestic expenditure or devaluation to tariffs.

10. Factor Income Redistribution Argument. Another argument, particularly related to LDCs, is to redistribute income. There is a large labour-intensive sector with low incomes and a small capital-intensive sector with high incomes. The latter sector is mainly dependent on imports. It is argued that the imposition of tariffs on the imports of this sector will encourage the production of the labour-intensive sector where real incomes will rise. Factors of production will move from the former to the latter sector in the long run.

However, the capital-intensive sector releases more capital but less labour which the expanding labour-intensive sector wishes to absorb. This causes wages in the labour-intensive sector to rise even more. At the same time, wages in the capital-intensive sector rise because the producers find it difficult to retain workers from moving to the other sector. Eventually, both the industries pay equal wages. Thus tariffs lead to equalisation of factor incomes in the long-run growth process. But, in reality, factor incomes are never equalised. Rather a tariff may harm the scarce factor more than it may benefit the abundant factor in such countries due to inherent sociological, political and economic constraints. But tariffs are not the most efficient instrument for redistribution of income. The best course is to resort to lumpsum redistributions of income without causing malallocation resources by taxing the high-income groups and giving the proceeds to low-income groups through various incentives and providing productive employment opportunities.

* The following para is for higher classes.

11. Revenue Argument. Tariffs are levied to generate revenue for the government and to protect domestic industries from foreign competition. In LDCs, revenue collection is considered the main objective of import and export tariffs. This is not a correct view because raising revenue is a by-product of protection to domestic industries. However, if such governments depend more on tariffs as a source of revenue, it may lead to some negative side-effects. If the demand for imported goods is fairly inelastic, tariffs may bring more revenue. On the contrary, in the case of highly elastic demand, tariffs may stop trade altogether and reduce the government revenue. Similarly, taxes (duties) on exports reduce the sales of exports and foreign earnings, thereby creating balance of payments difficulties.*

Despite these demerits, LDCs prefer tariffs for raising revenue because they are easy to levy and less expensive to collect than other direct and indirect taxes. But the tariff rates should not be so high as to become prohibitive and harmful for the country. So far as the burden of import tariffs on domestic importers and foreign

exporters is concerned, it depends on the price elasticities of demand and supply for the goods. If the demand for imports is relatively elastic and the supply exports is relatively inelastic, the main burden of the tariffs will fall on the foreign exporters. In case the demand for imports is relatively inelastic and the supply of exports is relatively elastic, the major burden will be borne by the domestic importers.

Two questions arise : *What is the specific rate of tariff which maximises the tariff revenue?* Is the optimum tariff which maximises the tariff revenue? The answers to these questions are : the first is the maximum tariff revenue rate. The second is that the optimum tariff does not maximise the tariff revenue. It is not the maximum tariff revenue rate.

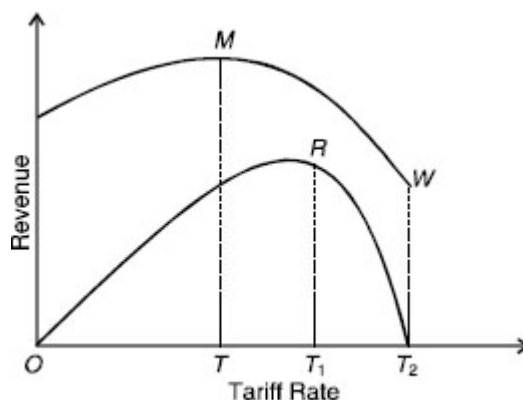


FIG. 5

Consider, Fig. 5 where the upper curve represents the optimum tariff. As the tariff rate increases along this curve, welfare also increases. At the OT tariff rate, welfare is the maximum at M but the tariff revenue is not. When the tariff rate is increased further, the total revenue continues to rise till OT_1 rate.

This is the maximum tariff revenue rate. The total revenue is the maximum at point R on the ORT_2 curve. If the tariff rate is increased beyond this maximum rate, revenue will begin to fall from R till it reaches the prohibitive tariff rate OT_2 . In this situation the tariff rate is so high that imports stop and the revenue is zero. Thus the optimum tariff is not the maximum tariff revenue rate. In fact, the maximum tariff revenue rate is higher than the optimum tariff rate. This rate maximises the country's welfare upto the T_2W level.

12. Domestic Distortions Argument. The domestic distortions argument for tariff is based on the fact that the domestic factor and commodity markets in an economy do not work under fully competitive conditions. Rather, there are market failures or

imperfections in these markets which lead to domestic distortions. Market failures or distortions are due to monopolies, the problem of externalities (external economies or diseconomies), wage differentials, trade unions, government activities or regulations. The basic idea is that when distortions exist in an economy which prevent it from operating under perfectly competitive conditions, the government should use a tariff to cancel partially the effects of such distortions. This is the *second best policy*.*

* The following paras are for higher classes.

* The following analysis is for higher classes.

The use of tariffs to remove domestic distortions requires answers to three questions. *First*, is tariff better than free trade to increase welfare? *Second*, is tariff better than other forms of trade interventions by the government in increasing welfare? *Third*, which is the optimal policy for the government to adopt? To answer these questions, an optimum situation requires :

$$DRS = DRT = FRT$$

where, *DRS* is the domestic rate of substitution in consumption, *i.e.* the slope of the social indifference curve, *CIC*. *DRT* is the domestic rate of transformation in production, *i.e.* the slope of the production possibility curve for home production between any two commodities. *FRT* is the foreign rate of transformation *i.e.* the slope of the world price line or international *TOT*.

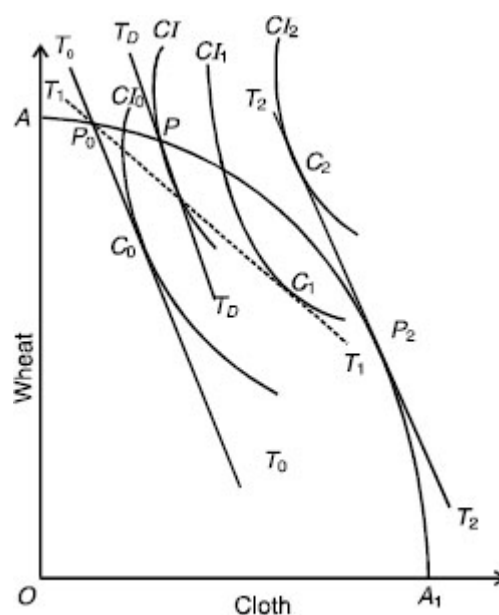


FIG. 6

DOMESTIC DISTORTIONS IN COMMODITY MARKETS

Domestic distortions in commodity markets are due to the existence of external diseconomies of production or negative production

externalities. These lead to divergencies between social and thus require protection to domestic industry. Private costs of production and suppose a country produces an exportable commodity wheat and an importable commodity cloth. Further, there are diseconomies in the production of wheat which are not reflected in its private cost of production. This means that the private cost of producing wheat is lower than its social cost. Thus the domestic relative prices do not reflect the social marginal rate of transformation in production. In such a situation, free trade may reduce welfare as compared to autarky.

This is illustrated in Fig. 6 where AA_1 is the production possibility curve of say country A which reflects its social marginal rate of transformation between wheat and cloth. Because of distortions in the production of wheat, the domestic terms of trade line is $T_D T_D$ and the country produces and consumes at point P under autarky. Suppose the international TOT line is $T_0 T_0$ which shows a comparative advantage in exporting wheat, the price of wheat being higher in the world market due to domestic distortions in comparison to the importable cloth. Now under free trade the country will increase its production of wheat to point P_0 , export some of it and consume the rest at point C_0 on the CI_0 curve which is lower than the CI curve under autarky. In this case, the community welfare has declined because domestic distortions have led the country to specialise in the wrong commodity wheat in which it does not possess comparative advantage. But the true comparative advantage will be if the international TOT is the dotted $T_1 T_1$ line where the country will consume at C_1 on the CI_1 curve which is higher than the CI curve under autarky. Therefore, the country will be better off with free trade. According to Bhagwati and Ramaswami, this need not always happen and the consumers may be worse off.

Hence the first-best policy is to solve the distortion problem by a domestic tax-cum-subsidy under free trade, instead of levying a protective tariff. In this case, a tax on the production of wheat or a subsidy on the production of cloth or both would lead the country to

maximise welfare when production takes place at P_2 , where the international TOT is T_2T_2 line (parallel to T_0T_0) is tangent to the production possibility curve AA_1 and consumption takes place at C_2 on the highest curve CI_2 .

DOMESTIC DISTORTIONS IN FACTOR MARKETS

Domestic distortions in factor markets exist due to wage differentials and immobility of labour among industries and rigidity of wages on the labour market side, or rationing of credit in capital markets. Such distortions necessitate protection to domestic industry because there is inefficiency in resource allocation. For instance, labour is underemployed and unemployed in the agricultural sector in LDCs whose wages are low as compared to high wages in industry.

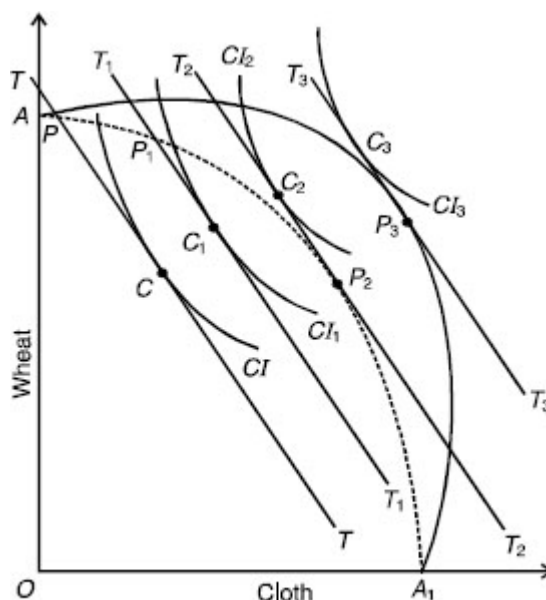


FIG. 7

This leads to divergence in the social and private cost of labour *i.e.* the private cost of labour in industry is much higher than the social cost of labour in agriculture. This shows inefficiency in resource allocation because labour is not being paid the same wage rate in both sectors of the economy. For an optimum resource allocation, protection to domestic production should be given either in the form of tariff or subsidy or both. The effect of distortion on the factor market is shown on a diagram by drawing a production possibility curve, such as the broken curve APA_1 , inward towards the O -axis in Fig. 7. Suppose under free trade at the international TOT line TT , the country is producing at P and consuming at C . To remove distortion, the country imposes a prohibitive tariff which leads to production at P_1 and consumption at C_1 . As a result, the welfare has increased because the new CI_1 curve is at a higher level than the CI curve. But such a tariff is not an

optimal policy because the international TOT line $T_1 T_1$ is not tangent to the domestic production possibility curve APA_1 at point P_1 .

So the better policy would be to give a production subsidy to the industrial commodity cloth. The right subsidy takes the country to the distorted curve APA_1 at point P_2 where the slopes of the production possibility curve APA_1 and the international TOT line $T_2 T_2$ are equal. The social welfare also increases under subsidy than under tariff because the CI_2 curve is at a higher level than the CI_1 curve. Again, a subsidy on *production* is not the best policy because it has not been able to remove the distortion in the factor market.

The first best policy is to use a tax-cum-subsidy on the distorted factor labour so as to equalise the wage rate. A tax on employing labour in agricultural sector producing wheat and a subsidy to industrial sector producing cloth for employing labour would take the country to the undistorted solid production possibility Curve $AP_3 A_1$. Thus the optimal production point on this curve is P_3 as against P_2 and C_2 respectively under subsidy.

Conclusion. To conclude, if distortions exist in the commodity markets and factor markets, a tariff is not an optimal solution. The first best solution is a tax-cum-subsidy on the commodity in the case of a commodity market and on the distorted factor in a factor market.

13. Strategic Trade Policy Argument. The strategic trade policy argument is based on the development of high-technology industries in developed countries which need protection against foreign competition. It is argued that modern industries in the fields of information technology, tele-communications, computers, *etc.* are capital-intensive *R & D* (Research & Development) oriented, high-risk oriented, lead to large external economies and have high growth prospects for the country. They therefore, are required to be protected in order to have a comparative advantage over other competing countries. Thus this argument is similar to the infant-industry argument for LDCs.

But this policy has certain limitations. *First*, it is difficult to lay down criteria and pick up industries which have large external economies. *Second*, it is also a problem to lay down appropriate policies so as to develop high-tech industries. *Third*, almost all developed nations adopted strategic trade policies simultaneously. Consequently, their efforts to protect their industries are neutralised. So they may not be able to benefit much from protection. *Fourth*, even if a country is successful by following this policy, it is at the cost of other countries who are likely to follow a retaliatory policy.

14. Conservation of National Resources Argument. Countries which export minerals and raw materials always fear that their exports would ultimately exhaust them. Therefore, protection to such exhaustible national resources as coal, manganese, mica, iron, *etc.* is essential to conserve them for the future development of the country. This is done by restricting their exports through high export duties.

15. Pauper Labour Argument. It is argued that goods produced by workers getting high wages in one country cannot compete with goods produced by low-wage workers in the other country. Therefore, high-wage domestic goods should be protected from low-wage imported goods by imposing tariffs.

This argument is based on two unrealistic assumptions. *First*, the prices of goods are determined by wage rates alone, and *Second*, labour is the only factor of production. But the fact is that goods are manufactured by a combination of factors. Labour is combined with land and capital. It is only in the labour-intensive goods that low-paid labour can have a cost advantage over high-paid labour. It is, therefore, fallacious to argue that a high-wage country is at a disadvantage in the production of all types of commodities.

Further, it is wrong to assume that the cost of production is high in the high-wage country. In fact, high wages may be due to high productivity. So in a country where labour productivity is high, per unit cost of production may be lower than the low-wage country.

Consequently, when unit costs are low in the high-wage countries they can compete with low-wage countries.*

Stopler and Samuelson have shown under some rigid assumptions that protection can support the level of wages in a country. In a country where labour is scarce, free trade will enable labourintensive imports to enter. As a result, labour scarcity will be reduced, thereby reducing the wages of labour relative to the return on capital. So protection is justified because it will raise the wages of the scarce factor labour and reduce the return on the abundant factor capital.

The Stopler-Samuelson theorem does not support the pauper labour argument. It simply reveals that protection can lead to a redistribution of real income in favour of labour. But the real wage of labour can be increased in a better way by monetary and fiscal measures and benefits from free trade can also be enjoyed. Thus protection provides no solution to the fallacious pauper labour argument.

* The following two paras are for higher classes.

16. Keeping Money at Home Argument. This is also one of the fallacious arguments for protection. This argument runs as follows: “When we buy manufactured goods abroad we get the goods and the foreigner gets the money. When we buy the manufactured goods at home we get both the goods and the money.” This saying by Robert Ingersoll is wrongly attributed to Abraham Lincoln. This argument is illogical because if every country were to follow this rule, there would be no international trade and the benefits of its would not accrue to any country of the world. A country buys goods from another country because the latter offers them at lower prices than the domestic manufacturers. Buying goods produced by domestic manufacturers would, therefore, mean loss to the consumers. Moreover, in international trade domestic currency cannot be used for making payments to foreigners. In fact, goods pay for goods, and payments if any are made in the international currency. Thus, as pointed out by Beveridge, this argument “has no merits; the only

sensible words in it are the first eight words” in the above cited quotation.

17. Expanding Home Market Argument. This is a corollary to the above argument of keeping money at home. According to this argument, protection should be given to new industries and the workers engaged in them would create a good market for other domestic products. This would expand the home market for all domestic products including agricultural commodities. This is again a fallacious argument because the home market would expand at the expense of the foreign market for exports. When imports are restricted by imposition of tariff duties, exports also decline because other countries would retaliate. Moreover, domestic producers will charge higher prices for the products of domestic industries and the consumers will be the losers.

18. Scientific Tariff, or Equalising Costs of Production Argument. Protection to domestic industries is advocated for equalising costs of production or prices of domestic and foreign products. If, for example, the domestic costs are higher than foreign price by 25 per cent, an import duty of 25 per cent should be imposed on the foreign products. Thus the price of both domestic and foreign products are equalised and they can compete on equal terms. According to Taussig, this argument ‘has an engaging appearance of fairness. It seems to say, no favours, no undue rates.’ But strictly speaking, its “apparent fairness is only skin deep,” according to Ellsworth. If the domestic costs of production are high, the import duty will also be high. So it is the foreigner who suffers from such a policy. The imposition of very high import duties by all countries would lead to the destruction of international trade. Ellsworth also regards such a protection policy as discriminatory. The imposition of retaliatory tariff duties on the country’s exports by other countries harms the efficient domestic export industries. Moreover, such a policy would lead to giving protection to the least efficient industries with the highest costs of production. It thus “discriminates in favour of inefficient producers; against efficient ones, and against the general body of consumers.”

B. Non-Economic Arguments. There are three important non-economic arguments for protection.

1. Defence Argument. A country should adopt the policy of protecting its industries from the standpoint of national defence. If a country is dependent on other countries for its requirements of agricultural and industrial products, it will be very harmful for its national interest in times of war. The argument runs that it is no use amassing wealth and becoming richer, if the country is not in a position to defend its freedom. As aptly put by Adam Smith, "Defence is better than opulence." Therefore, a country should be self-sufficient as far as possible even if it involves an economic loss in the production of certain commodities, which are needed for national defence. In particular, protection for national defence refers to self-sufficiency in arms and ammunitions and other related industries. But complete self-sufficiency as an argument for national defence does not carry much force for it will lead to inefficiency in domestic industries and loss of the gains from international trade. Thus industries which are directly and indirectly needed for the manufacture of arms and ammunitions and other war materials should be developed under protection.

2. Preservation Argument. Protection is advocated to preserve the special ethos of the nation and certain classes of the population or certain occupations. It is argued that these would tend to disappear under free trade and their preservation is desired on political and social grounds. This argument is put forth to safeguard the interests of the agriculturists. The imposition of agricultural duties on import of farm products is beneficial for the farmers who would be assured fair prices for their products. They would thus become prosperous. The prosperity of the peasantry is essential for it forms the backbone of every nation. As pointed out by Haberler "Agriculture is the wellspring from which the human race is physically and mentally regenerated. Therefore, agriculture should be protected from foreign competition at all costs to preserve the special ethos of the nation."

3. Patriotism or Nationalism Argument. To arouse patriotism or nationalism among the people, imports of foreign goods are restricted through high import duties so that they consume the goods manufactured within the country. This is what Gandhiji advocated in his *swadeshi* movements. For the success of such a policy, it is essential that goods produced within the country should be of high quality and available in sufficient quantities.

NEED FOR PROTECTION IN LDCs

Various arguments have been put forth in support of the policy of protection in LDCs. They are discussed as under :

1. Capital Formation. In LDCs, the income of the people being low, they save and invest less. So the rate of capital formation is low. Domestic savings can be increased by restricting the importation of luxury consumer goods through prohibitive import duties. Traded goods become more expensive. The consumption expenditure is thereby reduced which is equivalent to an increase in savings. This increase in savings is, in turn, utilised for importing capital goods. Thus the necessary condition for capital formation is that a reduction in the import of capital goods must be followed by an increase in the export of capital goods of the same value.

2. Foreign Investment. Protection also acts as a source of capital formation by attracting direct foreign investment in LDCs. According to Prof. Mundell, protection leads to additional flow of foreign capital. One of the methods is the setting up of tariff factories in the tariff imposing country by the foreign manufacturer in order to escape import controls. The foreign manufacturer may set up a branch or subsidiary of his firm alone or in collaboration with local enterprise behind the tariff wall when the finished products are prohibited while raw materials and necessary parts are permitted duty free.

3. Revenue. Import and export duties are an important source of revenue for LDCs, because other revenue sources are limited due to the low level of income and corporate profits, the existence of large

non-marketed output, the lack of an efficient bureaucratic system, *etc.*

4. Infant Industries. The famous Listian ‘infant industry’ argument in favour of protection gives enough inducement to LDCs in accelerating their pace of industrialisation. There are some industries which can be fruitfully developed in countries provided they are protected from foreign competition. The argument is that ‘infant’ industries need protection from foreign competition till they attain adulthood. The period between infancy and adulthood is generally characterized by a transition from the agricultural to the industrial stage. Myrdal has assigned “four special reasons for industrial protection in underdeveloped countries—the difficulties of finding demand to match new supply, the existence of surplus labour, the large rewards of individual investments in creating external economies, and the lop-sided internal price structure disfavours industry.” These reasons are interrelated and provide an “infant economy” case for protection to industries in LDCs.

5. Terms of Trade. LDCs have unfavourable terms of trade in relation to the developed countries. The imposition of tariffs is essential to shift the terms of trade in favour of LDCs which increases its gains from trade. If an LDC imposes tariffs that bring about a fall in import prices or rise in export prices, its terms of trade are improved. Its income will increase and it will be in a position to import larger quantities of capital goods.

6. External Economies. Another argument for protection in LDCs is the establishment and development of new industries. Every new industry yields benefits in the form of external economies. These external economies result in a divergence between private profit and social benefit. And when such divergence arises, a case can be made for import restrictions or subsidization in order to lessen this divergence. Prof. Scitovsky maintains that the concept of external economies in the context of industrialization of underdeveloped countries is used in connection with the social problem of allocating savings among alternative investment opportunities. He explains

further that with an expansion in the capacity of an industry as a result of investment, prices of its products fall and the prices of the factors used by it rise. The lowering of product prices benefits their consumers and the rising of factor prices benefits their suppliers. When these benefits accrue to firms in the form of profits, they are further invested and lead to industrialisation.

7. Factor Redistribution. In an LDC, there is wide difference between wages of agricultural workers and industrial workers. Due to underemployment in rural areas, wages tend to be low in agriculture as the marginal product of labour is negligible or zero. But wages are high in industry. As a result, there is a gap in prices and costs between agriculture and industry. A policy of protection to industries will compensate for this gap by providing employment to the surplus labour force in industry. Since agriculture is less productive than industry, real income can be raised by factor redistribution through a policy of protection in LDCs.

8. Balance of Payments. One of the principal objectives of protection in an LDCs is to prevent disequilibrium in the balance of payments. Such countries are prone to serious balance of payments difficulties to fulfil the planned targets of development. An imbalance is created between imports and exports which continues to widen as development gains momentum. This is due to increase in imports and decline in exports. The imposition of tariffs lead to the restriction of imports and encouragement of exports, thereby making the balance of payments favourable for the country.

9. Planned Economic Development. LDCs follow the policy of planned economic development. They aim at the utilisation of their scarce resources in the most efficient manner so as to provide more employment and income to the people and to raise their standard of living. This requires the importation of essential raw materials and capital goods in place of unnecessary consumer goods. This is only possible by levying low import duties on the former goods and heavy import duties on the latter goods.

10. Diversification and Self-sufficiency. The majority of LDCs have won their freedom from the colonial rule after much struggle. They want to maintain it by becoming strong on the economic and defence fronts. These require a policy of protection in order to diversify their economies so that they become self-sufficient through all-round development and have self-sustaining growth.

EXERCISES

1. State the case for and against free trade.
2. Give arguments in support of the policy of protection.
3. Examine critically the infant industry argument for protection in the context of a developing country.
4. Discuss the need for protection in an underdeveloped country.



TARIFFS

1. MEANING AND TYPES

A tariff is a tax or duty levied on goods when they enter and leave the national frontier or boundary. In this sense, a tariff refers to import duties and export duties. But for practical purposes, a tariff is synonymous with import duties or custom duties.

TYPES OF TARIFFS

Tariffs are classified in a number of ways.

On the Basis of Purpose. Tariffs are used for two different purposes : for revenue and for protection.

1. Revenue Tariff. Revenue tariffs are meant to provide the state with revenue. Revenue duties are levied on luxury consumer goods. The lower the import duties, the larger is the revenue from them. This is because the rise in the price of the imported goods does not increase much with the imposition of low import duties and the consumers do not normally shift their demand to other domestically produced goods.

2. Protective Tariff. Protective tariffs are meant “to maintain and encourage those branches of home industry protected by the duties.”¹ Now-a-days, governments levy import duties with the

principal objective of discouraging imports in order to encourage domestic production of protected industry. The revenue function of an import duty is a secondary one.

The following types of tariff duties are levied : ad valorem, specific, compound and sliding scale duties.

1. Ad Valorem Duty. The most common type of duty is the ad valorem duty. It is levied as a percentage of the total value of the imported common duty. The import duty is a fixed percentage of the c.i.f. (cost, insurance and freight) value of the commodity. It may be 25 per cent, 50 per cent and so on.

2. Specific Duty. Specific duties are levied per physical unit of the imported commodity, as Rs X per TV, as cloth per metre, as oil per litre, as fertilizers per tonne, etc.

3. Compound Duty. Often, governments levy compound duties which are a combination of the ad valorem and the specific duties. In this case, units of an imported commodity are levied a percentage ad valorem duty plus a specific duty on each unit of the commodity. For instance, a country may impose an import duty on a car at the fixed rate of Rs. 1 lakh + 10% on the price of car.

[1.](#) G. Haberler, *op. cit.*, p. 238.

4. Sliding Scale Duty. Sometimes governments levy import duties which vary with the prices of commodities imported. Such duties are known as sliding scale duties which may be either ad valorem or specific. Normally, sliding scale duties are imposed on specific basis.

On the Basis of Country-wise Discrimination. The following types of tariffs are levied on the basis of country-wise discrimination.

1. Single Column Tariff. When a uniform rate of duty is imposed on all similar commodities irrespective of the country from which they are imported, it is called single-column tariff. It is non-discriminatory

tariff which is very simple and easy to design and administer. But it is not elastic and adequate. Revenue may not be collected by this system.

2. Double Column Tariffs. Under this system, two different rates of duty exist for all or some of the commodities. The government of the country declares both the rates at the beginning or one at the beginning and another after settling the rates under trade agreements. They can be classified as follows :

(i) General and Conventional Tariffs. The general tariff is the list of tariffs which is announced by the government as its annual tariff policy at the beginning of the year. It is a particular tariff rate which is charged from all countries. On the other hand, conventional tariff rates are based on trade agreements/treaties with other countries. They may be different for different countries and vary from commodity to commodity. They are not flexible for they can only be changed by mutual consent. As they are inflexible, they hamper the expansion of trade.

(ii) Maximum and Minimum Tariffs. Governments usually fix two tariff rates for importing the same commodity from different countries. Countries with which it has a commercial agreement/ treaty, (under most favoured nation), minimum tariff rate is imposed. On the other hand maximum tariff rate is imposed on imports from the rest of the countries.

3. Multiple or Triple Column Tariffs. Under the multiple column tariff system, two or more tariff rates are levied on each category of commodity. But the usual practice is to have three different lists of tariffs, *i.e.* general, intermediate and preferential. The general rates are imposed in the same manner as the maximum rates mentioned above. Similarly, the intermediate rates are the minimum rates. The preferential rates were levied on goods imported from Britain before independence which had low rates or were duty free. Presently, imports among the SAARC countries carry preferential duties on imports from each other.

On the Basis of Retaliation. There are two ways to levy import duties on the basis of retaliation

1. Retaliatory Tariffs. A retaliatory tariff duty is levied by one country on the imports of another country in order to punish the latter for its trade policy which harms its exports or balance of payments position.

2. Countervailing Duty. It is an additional duty which is imposed on a commodity whose export price is reduced by the other country through an export subsidy. The additional duty is levied to raise its price in order to protect producers of the same commodity in the importing country from the cheap foreign commodity.

2. EFFECTS OF TARIFFS

Tariffs have a variety of effects which depend upon their power to reduce imports. The effects of a tariff may be analysed from the standpoint of the economy as a whole which is known as the general equilibrium analysis. Or, they may be discussed from the point of view of a particular good or market which is known as the partial equilibrium analysis. A tariff “is likely to alter trade, prices, output, and consumption, and to reallocate resources, change factor proportions, redistribute income, change employment, and alter the balance of payments.”²

1. EFFECTS OF A TARIFF UNDER PARTIAL EQUILIBRIUM

The effects of a tariff under partial equilibrium analysis relate to a small industry in a small country. When a tariff is imposed on the imports of a single commodity by a small country, it does not affect the rest of the domestic economy and also the world price of this commodity.

ITS ASSUMPTIONS

The analysis of the effects of a tariff under the partial equilibrium analysis is based on the following assumptions :

1. There is only one small country.
2. It imposes tariff on one commodity.
3. The demand and supply curves of a commodity relate to the country which levies an import duty.
4. These curves are assumed as given and constant.
5. On the demand side, consumers' tastes, incomes and prices of other commodities are assumed to be fixed.
6. On the supply side, changes in cost conditions such as externalities, technological innovations, *etc.* do not take place.
7. The world supply of commodity is perfectly elastic with respect to price.
8. The home country does not impose tariff on the imports of materials required for producing the commodity.
9. There are no transport costs.
10. The foreign price of the commodity remains unchanged.
11. The imported and domestically produced commodity are perfect substitutes.

Prof. Kindleberger has listed eight effects of tariffs : (1) Protective Effect; (2) Consumption Effect; (3) Revenue Effect; (4) Redistributive Effect; (5) Terms of Trade Effect; (6) Competitive Effect; (7) Income Effect; and (8) Balance of Payments Effect. All these effects are the result of the Price Effect which we first explain.

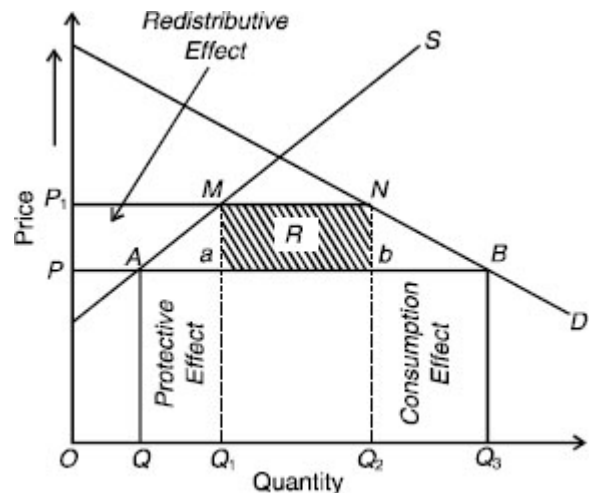


FIG. 1

Price Effect. Given these assumptions, the price effect of a tariff is explained in terms of Fig. 1 where D and S are the domestic demand and supply curves of a commodity. OP represents the constant world price at which the foreign producers are prepared to sell their commodity in the domestic market. Thus the horizontal line PB is the supply curve of imports which is perfectly elastic at OP price. Thus under free trade (before the imposition of a tariff) the equilibrium market position is

given by point B where the domestic demand curve D intersects the world supply curve PB at the price OP . The total demand for the commodity is OQ_3 . The domestic supply is OQ . The difference between domestic demand and domestic supply is met by importing QQ_3 quantity at OP price.

[2.](#) Charles P. Kindleberger, *op. cit.*, p. 107.

Suppose a tariff of PP_1 is imposed on the import of the commodity. Given a constant foreign price, the domestic price of the commodity rises by the full amount of the tariff of OP_1 . Thus the rise in the price of the commodity by PP_1 is the price effect of the tariff. As a result, the new equilibrium market position is given by point N . In response to the higher price, the domestic demand falls from OQ_3 to OQ_2 and the domestic supply increases from OQ to OQ_1 . So that the total demand for the commodity is OQ_2 which is partly met by domestic supply OQ_1 and partly by importing Q_1Q_2 . Thus imports have fallen from QQ_3 to Q_1Q_2 as a result of the price effect. The protective, consumption, revenue and redistribution effects of a tariff can also be illustrated by Fig. 1.

1. Protective Effect. The protective effect shows how the domestic industry can be protected from foreign competition by imposing an import duty. In Fig. 1 under free trade, OQ_3 quantity of the commodity is imported at OP price. With the imposition of the import duty of PP_1 , imports are reduced to Q_1Q_2 , while the domestic production (supply) of the commodity increases from OQ to OQ_1 . Thus the increase in the domestic production of the commodity by QQ_1 as a result of the tariff is the protective or production effect.

Prof. Ellsworth has carried this protective effect further and has analysed it as the import substitution effect. When the domestic producers face the higher price OP_1 , they are able to cover the rising marginal costs of additional output, and expand production to OQ_1 .

This replacement of foreign production with domestic production by QQ_1 is called the import substitution effect of a tariff.

2. Consumption Effect. The consumption effect of the tariff is to reduce the consumption of the commodity on which the tariff is imposed, as also to reduce consumers' net satisfaction. These are illustrated in Fig. 1. Before the imposition of a tariff, consumers were consuming OQ_3 quantity of the commodity at OP price, with the levying of an import duty of PP_1 , the price of the commodity rises to OP_1 . Now imports are reduced by Q_3Q_2 and the total consumption of the commodity is also reduced from OQ_3 to OQ_2 . Thus Q_3Q_2 ($= OQ_3 - OQ_2$) is the consumption effect of the tariff. This, in turn, leads to a net loss of consumers' satisfaction equal to the area PP_1NB . Prof. Kindleberger calls the combined protective and consumption effect as *trade effect*. The imposition of PP_1 tariff has the effect of reducing the total volume of trade of the country equivalent of $OQ_3 - Q_1Q_2$.

3. Revenue Effect. the revenue effect is the change in government receipts as a result of the tariff. In the case illustrated in Fig. 1 initially the tariff is assumed zero at price OP . So when PP_1 import duty is levied, the revenue to the government is equal to the amount of the import duty multiplied by the quantity of imports. The revenue effect is, therefore, $PP_1 \times Q_1Q_2$, or the rectangular shaded area R .

4. Redistributive Effect. The redistribution effect results from producers receiving a higher price for their commodity after the imposition of the tariff. This is shown in Fig. 1 by the area PP_1MA . This amount is a surplus over production costs and is an economic rent which goes to producers. According to Kindleberger the redistribution effect "is an addition to producers' surplus derived by subtraction from consumers' surplus". In this sense, the net loss to consumers' satisfaction as measured by the consumption effect is PP_1NB . Out of this, the amount shown by the area R is taken away by the government as revenue, and the loss of consumers' surplus is represented by the two triangles a and b . This loss of consumers'

surplus represented by the two triangles *a* and *b* is neither transferable to the producers nor to the government and is called by Kindleberger as the “deadweight loss of the tariff.” This may also be called the *cost of the tariff*. Thus the quadrilateral PP_1MA measures the redistributive effect of the tariff which goes to the domestic producers of the commodity.

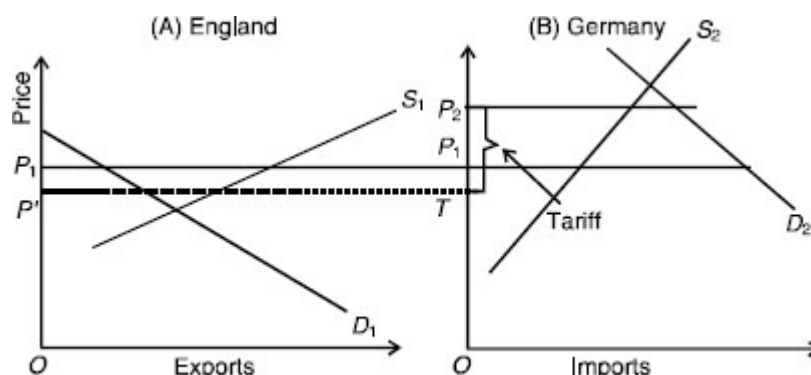


FIG. 2

5. Balance of Payments Effect. A tariff has a favourable balance of payments effect by reducing imports in the tariff imposing country and reducing exports in the other country. Thus a tariff reduces the country's international expenditure and brings stability in the balance of payments. The balance of payments effect is illustrated in Fig. 1. Under free trade conditions, QQ_3 commodity is imported at OP price. The total value of imports is represented by the rectangle AQQ_3B . This represents a balance of payments deficit since the price paid by importers is the amount received by the other country. To remove this deficit, PP_1 import duty is levied on the imported commodity. As a result, imports are reduced from QQ_3 to Q_1Q_2 . The government gets a revenue equal to the area R . There is also improvement in the balance of payments because the amount paid to the other country equals the area aQ_1Q_2b which is less than under free trade AQQ_3B .

6. Terms of Trade Effect. The terms of trade effect of a tariff is that it improves the terms of trade of country imposing it. This is illustrated in Fig. 2 when Panel (A) shows S_1 and D_1 as the supply and demand curves respectively of the exporting country England,

and Panel (B) shows S_2 and D_2 the supply and demand curves respectively of the importing country Germany. Before the imposition of a tariff by Germany, trade between the two countries is taking place at the price OP_1 . Suppose Germany imposes tariff of P_2T amount on the imported commodity from England. This raises its price in Germany and the demand for it falls. On the other hand, its supply price in England falls with the decline in its export demand. Thus the price rises from OP_1 to OP_2 in Germany in Panel (B) and falls in England from OP_1 to OP' in Panel (A), as a result of the tariff. Of the total tariff of P_2T , a larger amount P_2P_1 is borne by the importer country Germany and P_1P by the exporter country England. The terms of trade effect is that a tariff-imposing country improves its terms of trade by getting its imports cheaply in the sense that the exporter country is forced to pay a part of the tariff duty. "It is true that the consumer in the importing country has to pay a higher price. But this is offset, so far as imports are concerned, by the revenue effect. If the redistribution effect can be ignored, the revenue effect, which is the tariff times imports after the imposition of the tax, is levied partly on producers in the exporting country." If the supply is very inelastic in the exporting country and the demand fairly elastic in the importing country, the imposition of a tariff will not change the imports much, but they will be obtained much cheaply. If the supply curve in the exporting country is perfectly elastic the imposition of a tariff cannot improve the terms of trade at all.

7. Competitive Effect. The competitive effect of a tariff is to protect the domestic industry from foreign competition by imposing a tariff on the commodity imported. This effect is usually associated with the infant industry argument of protection. But the fear is expressed that an infant industry may not like to face competition even after attaining adulthood. It may develop into a monopoly and may continue to be inefficient. Prof. Kindleberger opines that "the competitive effect of a tariff is really an anti-competitive effect; competition is stimulated by tariff removal." He, therefore, favours the removal of tariff on "sluggish, fat and lazy" domestic industries in the interest of the economy.

8. Income Effect^{*}. The income effect refers to the effect of a tariff on the levels of income and employment of a country imposing the tariff. A tariff reduces the demand for imported goods by reducing imports, and increases the demand for home-produced goods on the assumption that there is no retaliation by the other country. It will increase the value of the export surplus ($X - M$), thereby increasing the inflow of income from the foreign sector. The whole of the income diverted from imports will not be saved but a part of it will be spent at home. Under conditions of less than full employment, this will raise money and real incomes and employment.

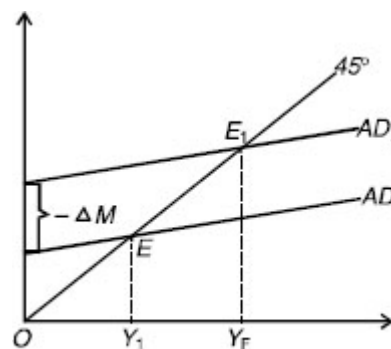


FIG. 3

The income effect of a tariff is illustrated in Fig. 3. AD is the total expenditure schedule of the economy at unemployment level which crosses the 45° line at E so that OY_1 is the equilibrium level of income. AD also represents the aggregate demand and comprises $C + I + G + (X - M)$. When a tariff is imposed, it reduces imports by DM and increases the demand for the domestically produced goods so that the aggregate demand curve shifts to $AD_1 = [C + I + G + (X - M)]$. This gives a new equilibrium at point E_1 . If the increased level of income OY_F is one of full employment, then the imposition of a tariff has brought the economy to the level of full employment and raised the level of income of OY_F .

The effect of tariff on income and employment of a tariff imposing country may not be expansionary for the following reasons. *First*, when the home country imposes a tariff, the exports of the foreign country are reduced which, in turn, reduce its output, employment and income. As a result, the foreign country will curtail its imports from the home country. This means reduction in the exports of the tariff imposing home country which reduces its income and employment. This is called a *beggar-thy-neighbour* policy. *Second*, if the tariff imposing country is able to raise its income and employment at the expense of the other country. *Third*, the other

country may adopt retaliatory measures like tariff and countervailing duties which may counteract the income and employment effects in the home country.

2. EFFECTS OF A TARIFF UNDER GENERAL EQUILIBRIUM

The effects of a tariff under the general equilibrium are studied in the case of a small country and a large country.

1. Effects of a Tariff in a Small Country. The effects of a tariff under the general equilibrium analysis are analysed in terms of the consumption effect, the production effect, and the terms of trade effect.

Its Assumptions. This analysis is based on the following assumptions :

(i) There are two trading countries, say England and the rest of the world, as represented by, say, Germany;

(ii) England is a home country which is small;

(iii) There are two commodities cloth and linen which they exchange;

(iv) Cloth is an exportable commodity of England and linen is its importable commodity;

* This also relates to the effect of tariff on employment.

(v) The incidence of the tariff falls exclusively on the tariff imposing country, say England by the full amount of the tariff.

(vi) Prices on the world market remain unchanged.

(vii) The revenue from the tariff is spent on consumption.

Explanation. Given these assumption, the imposition of an import tariff raises the domestic price of the importable commodity linen

Effects. To explain the production effect of a tariff, take England which produces two commodities cloth and linen but specialises in the production of cloth and exchanges it for Germany's linen. Its production possibility curve between the two goods is BB_1 in Fig. 4. Under free trade, its production is at point E on the production possibility curve and consumption point is C_2 on the community indifference curve CI_2 . Its world price ratio (or terms of trade) is indicated by the slope of the line P_2P_2 which is simultaneously tangent to the production possibility curve at E and CI_2 curve at C_2 . The trade triangle of England is EFC_2 which shows that the exports FE quantity of cloth in exchange for FC_2 quantity of linen it imports.

Assuming that the world price ratio between the two commodities remains unchanged, an imposition of a tariff on the import of linen tends to raise its price in the domestic market relative to cloth by the amount of the tariff, as shown by the slope of the line PP . As a result, England will increase the domestic production of linen by substituting it for cloth. and produce at the new point T , on the production possibility curve BB_1 . This is the *production* or *Protective effect* of tariff. But trade takes place along the world price ratio P_1P_1 which is parallel to the line P_2P_2 under free trade and is tangent to the community indifference curve CI_1 the new domestic price line $P'P'$ (Parallel to P_1P_1) at point C_1 .

This point is on a lower community indifference curve CI_1 as compared to point C_2 on the higher community indifference curve CI_2 . This is the *consumption effect*. The production and consumption effects lead to the new trade triangle THC_1 which shows that England now exports HT of cloth and imports HC_1 of linen in exchange for it.

Thus the effects of the tariff in a small country are :

(1) to increase the domestic production of the importable goods and decrease its consumption with reduction in import; (2) to decrease production and exports of the exportable goods; and (3) to reduce the country's welfare.³

3. EFFECTS OF A TARIFF IN A LARGE COUNTRY

The effects of imposition of a tariff in the case of a large country are to improve its terms of trade, reduce its volume of trade and improve its welfare.

PRODUCTION AND CONSUMPTION EFFECTS

As the tariff-imposing country is large, its trade with the rest of the world affects world prices.

³ For the effect on income-distribution, refer to the Stopler-Samuelson Theorem in the next section.

Take Fig. 5 where under free trade, its production point is E_1 on AA_1 production possibility curve and the consumption point is C_1 on the CI_1 curve along the world price line P_1P_1 . The trade triangle is E_1FC_1 which shows that England exports FE_1 of cloth and imports FC_1 of linen. With the imposition of tariff on linen the relative price of cloth increases and that of linen decreases in the world market. This is because the tariff-imposing country being large, its reduction in the demand for the importable linen will be so large that its price falls in

the world market. In this situation, the fall in import price of linen relative to the export price of cloth, makes the world price line P_2P_2 steeper than P_1P_1 . Production moves from point E_1 to E_2 where the domestic price line PP is tangent and England trades along the world price line P_2P_2 . The consumption point moves to C_2 on the world price line P_2P_2 and the domestic price line $P'P'$ (parallel to PP). In this situation, C_2 is on the higher community indifference curve CI_2 than CI_1 which shows increase in welfare of the tariff-imposing country.

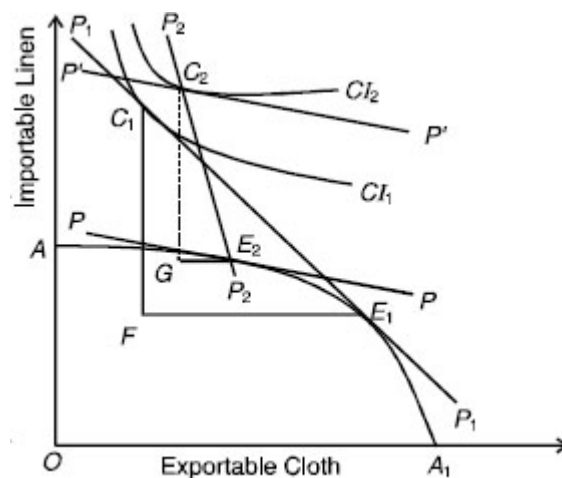


FIG. 5

These new production and consumption points lead to a new trade triangle E_2GC_2 whereby GE_2 of cloth is exported and GC_2 of linen is imported. The imposition of tariff has led to decreased specialisation as less quantity of cloth GE_2 is produced than before FE_1 and is exchanged for relatively large quantity of linen GC_2 due to the fall in the price of linen relative to the world price of cloth. On the whole, there is a net gain in the welfare of the tariff-imposing country (England) because its citizens now consume larger quantity GC_2 of linen at a lower price than before due to the consumption effect which offsets decreased specialisation from the production effect.

TERMS OF TRADE EFFECT

The terms of trade effect of a tariff is that a country imposing a tariff improves its terms of trade. It can get its imports more cheaply because the foreign exporter is forced to pay some part of the duty or the whole of it. But the extent to which the terms of trade of the tariff-imposing country improve depends upon the reciprocal demand of the two countries. Suppose there are two countries Germany and England which produce linen and cloth respectively. If the offer curve of England is more elastic, the terms of trade will be favourable to it

than to Germany. The terms of trade effect of tariff is illustrated in Fig. 6 in terms of the general equilibrium analysis. OE and OG are the offer curves of England and Germany respectively. The terms of trade under free trade are given by point A on the ray OT whereby England is exporting OC cloth and importing OL of linen from Germany. Suppose a tariff is imposed by England on Germany's linen. It shifts the offer curve of England from OE to OE_1 and England offers less cloth for Germany's linen. This changes the terms of trade from OT to OT_1 in favour of England. Now England exports OC_1 of cloth in exchange for OL_1 of linen from Germany. It now exports CC_1 less of cloth than before and imports LL_1 less of linen. Since the quantity of imports reduced by England is less than its exports to Germany ($LL_1 < CC_1$), the terms of trade have moved in favour of England with the imposition of a tariff. However, since England improves its terms of trade at the expense of Germany. Germany is likely to retaliate, and in the end both countries will lose.

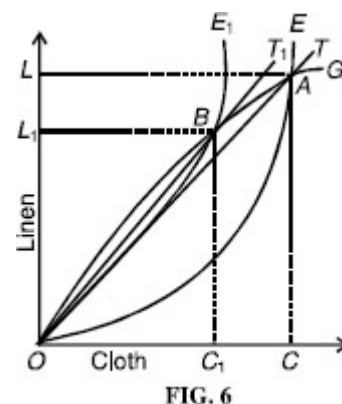


FIG. 6

(a) Terms of Trade Effect without Retaliation.

The imposition of a tariff by a country when the other country does not retaliate, has two effects. *First*, the tariff imposing country improves its terms of trade. It gets its imports more cheaply because the foreign exporter is forced to pay some part of the duty or the whole of it. *Second*, the tariff tends to reduce the volume of trade. These effects of a tariff are

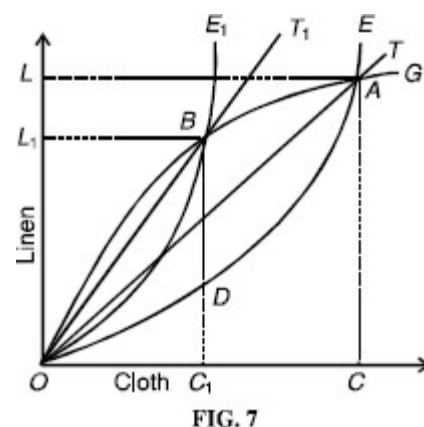


FIG. 7

explained with general equilibrium approach in Fig. 7. Suppose there are two countries England and Germany which produce cloth and linen respectively. OE is the offer curve of England and OG of Germany. The terms of trade between the two countries under free trade are given by point A on the ray OT whereby England is exporting OC cloth and importing OL of linen from Germany.

Suppose an import duty is imposed by England on Germany's linen. It shifts the offer curve of England from OE to OE_1 and intersects the offer curve of Germany OG at point B .

This changes the terms of trade of England to the left from OT to OT_1 . This is an improvement for England. Now England exports OC_1 of cloth in exchange for OL_1 linen from Germany. Out of $C_1B (= OL_1)$ of linen which England imports, DB is collected as import duty by the government. Thus the imposition of a tariff by England has led to : (a) an improvement in the terms of trade of England. It now exports CC_1 less of cloth than before and imports LL_1 of linen. Since the quantity of imports reduced by England is less than the reduction by England is less than the reduction in exports to Germany, $LL_1 < CC_1$, the terms of trade have improved for England; and (b) reduction in the total volume of trade between the two countries, $OC_1 + OL_1 < OC + OL$.

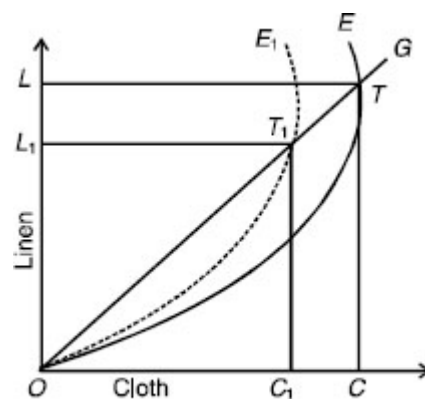


FIG. 8

But the extent to which the terms of trade of the tariff imposing country improve depends upon the *elasticity of demand* of the foreign offer curve of the other country. Suppose the foreign offer curve of Germany is *perfectly elastic*, shown as OG in Fig. 8. Under free trade the offer curves OG and OE intersect at point T indicating that OC cloth of England is exchanged for OL linen of Germany. With the imposition of tariff by England, its offer curve OE shifts to the left as OE_1 and intersects the offer curve OG at T_1 . But the terms of trade remain unchanged at the value of $T = T_1$. There is no improvement in the terms of trade of England and the volume of

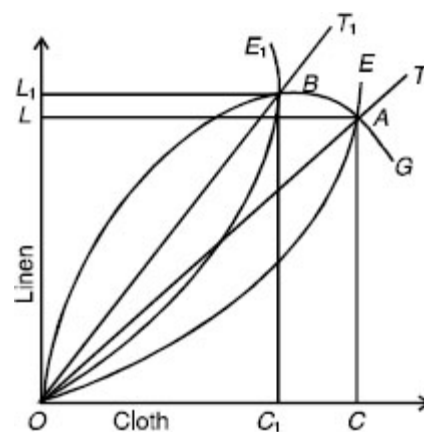


FIG. 9

trade falls by an equal amount in the two countries, C_1 cloth of England = LL_1 linen of Germany.

On the other hand, if the offer curve of Germany is *inelastic*, the terms of trade will move in favour of the tariff imposing country England. This is illustrated in Fig. 9. Under free trade the terms of trade of the two countries are depicted by the OT line and they exchange OC of cloth for OL of linen. Between A and B the offer curve of Germany OG is highly inelastic. With the imposition of a tariff the other curve of England OE_1 crosses OG at point B so that the new terms of trade line is OT_1 . This shows an improvement in the terms of trade of England because its exports fall very substantially by CC_1 of cloth, while the imports of linen which she exchanges actually increases by LL_1 amount.

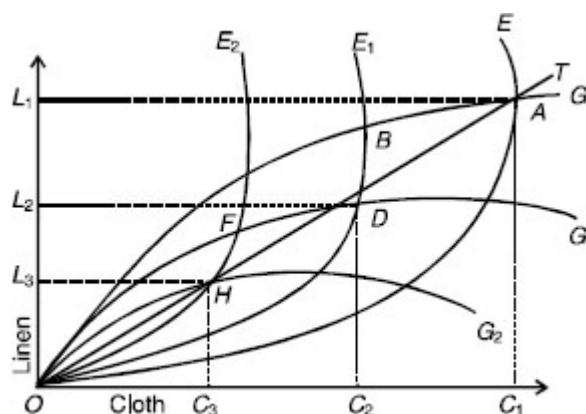


FIG. 10

Between A and B the offer curve of Germany OG is highly inelastic. With the imposition of a tariff the other curve of England OE_1 crosses OG at point B so that the new terms of trade line is OT_1 . This shows an improvement in the terms of trade of England because its exports fall very substantially by CC_1 of cloth, while the imports of linen which she exchanges actually increases by LL_1 amount.

(b) Terms of Trade Effect with Retaliation. The normal situation in international trade is not one of improving its terms of trade by one country by imposing tariff, while the other country sustains the loss without any counter action. In fact, if England improves its terms of trade by imposing a tariff, Germany will, in turn, impose a retaliatory tariff. The effect of such counter action on the part of each country is shown in Fig. 10. The free trade offer curves of England and Germany are OE and OG which intersect at point A , with the terms of trade settled at OT line. When England imposes a tariff on Germany's linen, its offer curve shifts to the left as OE_1 .

The new terms of trade point is B which shows improvement in the welfare of England. Now Germany retaliates by imposing an import duty on England's cloth so that its offer curve shifts to the position of G_1 . The new terms of trade are set at point D which is much lower than point B before retaliation. Now there is substantial reduction in

the volume of trade in both countries due to retaliation. If the two countries continue to retaliate by imposing retaliatory tariffs, the trading points will move successively from D to F to H which will leave the terms of trade unchanged at point A on the OT line. Consequently, the effects of retaliatory tariffs are to reduce the volume of trade between the two countries, and to bring the terms of trade at the free trade level. This is shown in the figure with the volume of trade successively falling from $(OC_1 + OL_1)$ to $(OC_2 + OL_2)$ to $(OC_3 + OL_3)$, and the terms of trade at point A reverting back to the free trade line OT . Thus the imposition of tariffs to improve the terms of trade, followed by retaliation, leads to loss for both countries.

3. OPTIMUM TARIFF AND WELFARE

Usually, the imposition of a tariff improves the terms of trade of the imposing country but reduces its volume of trade. The improvement in the terms of trade increases its welfare. This is the *positive* effect of a tariff. The decrease in the volume of trade reduces its welfare. This is the *negative* effect of a tariff. It is only when the positive effect of a tariff is larger than its negative effect that there is improvement in the welfare of a country. A prohibitive tariff with a very high rate reduced welfare by decreasing the volume of trade. On the other hand, a reduction in tariff by improving the terms of trade increases welfare. Thus as long as the terms of trade effect is stronger than the volume of trade effect, welfare can be improved by increasing the tariff rate. But a tariff cannot be continuously increased because sooner or later the net gain begins to decrease and net loss begins to increase. Therefore, a country “can always improve its welfare by applying the 'right' tariff. This tariff, the tariff that maximises a country's welfare is called the optimum tariff.”⁴

Determination of Optimum Tariff. The optimum level of tariff is determined at a point where the trade indifference curve of a tariff imposing country is tangent to the offer curve of the other country.

Assumptions. This analysis is based on the following assumptions :

1. There are two countries, England and Germany.
2. There are two commodities, cloth and linen.
3. England exports cloth and Germany exports linen.
4. England imposes tariff on the import of linen from Germany.
5. There is no retaliation by Germany on England's exports of cloth.

Explanation. Given these assumptions, the optimum tariff is explained with the help of Fig. 11, where OE is the offer curve of England and OG is the offer curve of Germany. TI_e is the indifference curve of England. Under free trade, the terms of trade between the two countries are given by the ray OT from the origin. Consequently, they are in equilibrium at point A where their offer curves intersect each other. Suppose

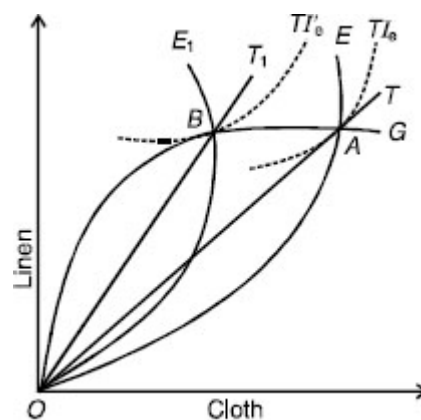


FIG. 11

England imposes a tariff on Germany's linen. As a result, England's offer curve shifts to the left as OE_1 . The new terms of trade are given by the ray OT_1 and B is the new equilibrium point determined by Germany's original offer curve OG and England's new offer curve OE_1 . This tariff which has changed England's offer curve from OE to OE_1 is the *optimum* tariff of this country. The point B where England's trade indifference curve TI_e' is tangent to Germany's offer curve OG is the point of optimum tariff. The welfare of people in England is greater at point B than at point A .

This is because at B they are at the TI' trade indifference curve which is above the TI trade indifference curve at the free trade situation A . Thus the tariff that maximises a country's welfare is the optimum tariff. "It is the tariff that moves the country to the trade indifference curve that is tangent to the other country's offer curve."⁵

The tariff imposing country can gain from the optimum tariff only if the offer curve of the other trading country is *less than perfectly elastic*. If the offer curve of the other country is perfectly or infinitely elastic, levying a tariff will not increase the welfare of the tariff-imposing country. This is illustrated in Fig. 8* where the offer curve of Germany is shown as the straight the curve OG and OE is the offer curve of England. Under free trade, the terms of trade are given by OG and the equilibrium is established at point T where the two offer curves intersect each other. When England imposes a tariff, its offer curve shifts to OE_1 . The new equilibrium is set at T_1 . In this case, the terms of trade remains unchanged, while the volume of trade is reduced from $OC + OL$ to $OC_1 + OL_1$. Here the *positive* effect of tariff is zero because there is no improvement in its terms of trade. And the negative effect of tariff is stronger, because of the large reduction in the volume of trade. Therefore, the optimum tariff is *zero*.

4. Bo Sodersten, *op. cit.*, p. 356.

5. P.T. Ellsworth and J.K. Leith, *op. cit.*, p. 242.

* Students should draw Fig. 8.

Optimum Tariff with Retaliation. When one country imposes an optimum tariff, it improves its welfare over a free trade situation. But this is based on the assumption that the other country does not retaliate. Since the optimum tariff hurts the other country against which it is imposed, it may retaliate by imposing a counter-tariff and try to improve its welfare position. The effect on the welfare of each as a result of retaliatory tariffs is illustrated in Fig. 12. Suppose England imposes an optimum tariff on Germany's linen so that the tariff-ridden position is B where the trade indifference curve TV is tangent to Germany's offer curve OG . This leads Germany to impose a retaliatory tariff on England's import of cloth so that its offer curve shifts to OG_1 with its

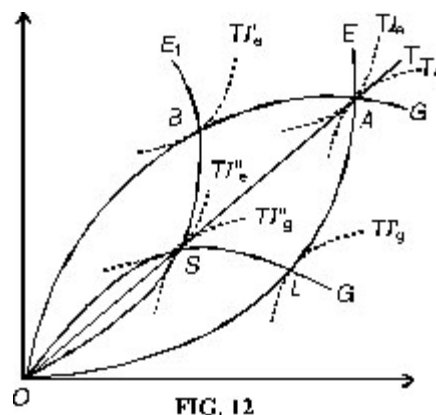


FIG. 12

trade indifference curve TI' at point L. This tends to increase the welfare of Germany also. Thus a country imposing a retaliatory tariff can reach a higher level of welfare but less than that enjoyed under free trade, as at point A in Fig. 12. This, however, does not mean that retaliation would stop at this point. The two countries may continue to indulge in retaliatory tariffs till they reach point O where no trade takes place between the two. They may reach a stable position such as S in Fig. 12 where each considers that it is levying an optimum tariff. Johnson concludes “whatever the final equilibrium point, one country must lose under tariffs as compared with free trade, since gain depends on obtaining an improvement in the terms of trade sufficient to outweigh the loss of trade volume, and this is impossible for both countries simultaneously, and both countries may lose, as in fact the case in Fig. 12; but it is not necessarily true that both will lose.”⁶

THE OPTIMUM TARIFF FORMULA

Prof. Kindleberger has devised a formula to measure the rate of optimum tariff which is

$$T_f = \frac{1}{e - 1}$$

Where T_f is the optimum tariff rate and e is the point elasticity of the offer curve of the other country. By applying this formula to the above case of a straight line offer curve having infinite elasticity, the optimum tariff is $1/(\infty - 1) = 0$. At point A in Fig. 12, the elasticity of the foreign offer curve is 1. The optimum tariff is $1/(1 - 1) = \infty$, infinity. When e is more than unity (one), the value of optimum tariff falls. When e is less than unit, the value of optimum tariff is *negative* thereby indicating that the optimum tariff does not exist on the inelastic portion of the foreign offer curve.

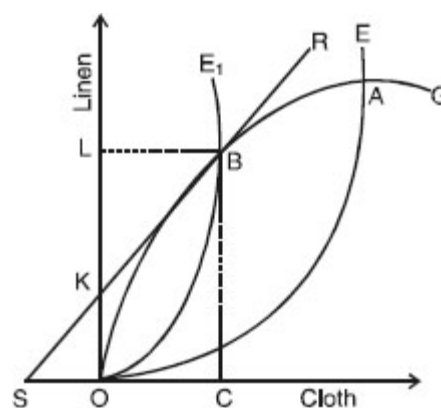


FIG. 13

The rate of optimum tariff can be calculated in terms of the elasticity of the foreign offer curve.*

* Elasticity of Offer Curve = $\frac{-(\% \text{ change in imports})}{(\% \text{ change in exports}) - (\% \text{ change in imports})} - 1$
 $= \frac{(\% \text{ change in exports})}{(\% \text{ change in imports})} - 1$

In Fig. 13, *B* is the point where the optimum tariff is determined. The import duty to the public in the tariff imposing country England is *OK/KL* when *CB* (= *OL*) quantity of linen is imported from Germany. Now the optimum tariff at point *B* is *OS/OC*. But *OS/OC* = *OS/LB* since *OC* = *LB* which, in turn, equals *OK/KL* by similar triangles *SOK* and *BLK*. The optimum tariff,

$$T_f = \frac{OS}{OC} = \frac{OK}{KL} \quad \dots(1)$$

The ratio *OK/KL* can be written as $\frac{1}{KL / OK} \quad \dots(2)$

But *KL* = *OL* - *OK* substituting it in (2), we have

$$\frac{1}{(OL - OK) / OK} = \frac{1}{OL / OK - OK / OK} = \frac{1}{OL / OK - 1}$$

But *OL/OK* is the elasticity of the offer curve at point *B*. So the optimum tariff *OS/OC* at point *B* can be expressed as

$$T_f = \frac{1}{OK / OL - 1} = \frac{1}{e - 1}$$

On the basis of the above tariff formula, the optimum tariff rate can be calculated for the different values of elasticity as under :

Optimum Tariff Rate

Elasticity	Optimum Tariff Formula (1/e - 1)	Optimum Tariff Rate T_f
$e = 1$	$1/1 - 1 = \infty$	Infinity
$e = 2$	$1/2 - 1 = 1/1 = 1$	100%

$e = 3$	$1/3 - 1 = 1/2 = 0.5$	50%
$e = 5$	$1/5 - 1 = 1/4 = 0.25$	25%
$e = \infty$	$1/\infty - 1 = 0$	zero

If the tariff-imposing home country is too small to influence the world price, elasticity is infinity. Thus T_f equals 0 which means that the optimum policy for a small country is free trade. But if the home country is large, the tariff formula requires a positive tariff.

Practical Relevance of Optimum Tariff. The optimum tariff implies the exploitation of monopoly and monopsony power by large country. Since the country possesses monopoly power, it can influence the world price. As a monopolist, the country can withhold its supply of the exportable good and thus force its price up. As a monopsonist in the market for imports, it can reduce the price by restricting demand by imposing a tariff. But this is essentially a nationalist argument whereby the home country's welfare increases at the expense of the other country.

So far as the relevance of the optimum tariff policy to developed countries is concerned, other motives for protection are more important than this policy. This is because the optimum tariff policy is not practically feasible. It requires that the home country must influence the world price of the good to a large extent so as to justify the imposition of optimum tariff. But there is always the fear of a counter foreign tariff and the resultant tariff war. In such a situation, optimum tariff is not the best policy because it will leave both countries worse off than under free trade. However, if the tariff-imposing country is large and the other country is small, there is no fear of retaliation.

So far as LDCs are concerned, the optimum tariff policy is not of much help to them. This is because such economies have a low degree of adaptability to changes in world trade. Therefore, they are not likely to gain much from high tariffs and their optimum tariffs are quite low as compared to developed countries.

4. EFFECTS OF A TARIFF ON INCOME DISTRIBUTION : THE STOPLER-SAMUELSON THEOREM

Stopler-Samuelson⁷ showed in article in 1941 that certain restrictive assumptions, a tariff can raise both the relative and absolute income of the relatively scarce factor of production and lower that of the abundant factor. Their analysis is set in a general equilibrium framework and has come to be known as the Stopler-Samuelson theorem.⁸

ITS ASSUMPTIONS

This analysis is based on the following assumptions :

1. There are two countries which trade with each other, but the analysis is geometrically confined to the home country.
2. This country produces only two commodities wheat (W) and watches (W_1).
3. These two commodities are produced with only two factors, labour and capital.
4. Production functions of both commodities are linear and homogeneous of degree one. In other words, production takes place under constant returns to scale.
5. Both factors are fixed in supply.
6. Both factors are fully mobile.
7. Both factors are fully employed.
8. There is perfect competition in the factor and commodity markets.
9. The production of watches is relatively capital intensive and that of wheat is relatively labour intensive.

10. Labour is an abundant factor of production and capital is a scarce factor in the home country.

11. Wheat is the exportable commodity and watches are the importable commodity.

12. The terms of trade between the two countries remain unchanged.

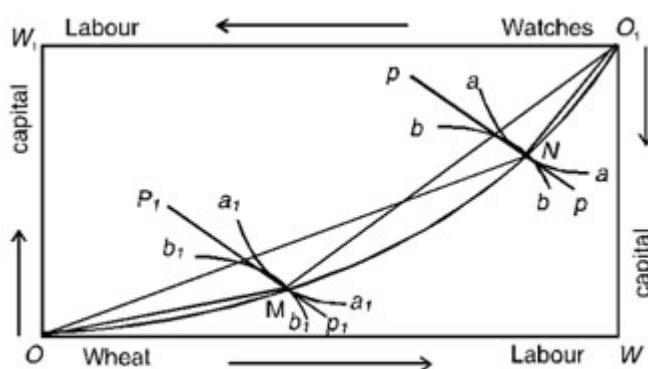


FIG. 14

7. W.F. Stolper and P.A. Samuelson, "Protection and Real Wages", *RES*, November 1941 reprinted in *Readings in the Theory of International Trade*, pp. 333-357.

8. For effects of tariffs in a partial equilibrium framework, students should read Redistributational Effect.

EXPLANATION

Given these assumptions, the effect of imposition of a tariff by the home country on income distribution is illustrated in Fig. 14 where labour is measured along the horizontal axis and capital along the vertical axis. Assuming that the home country exports the labour-intensive commodity wheat and imports the capital-intensive commodity watches, the origin of wheat production is shown as O and that of watch production O_1 so that OO_1 is the contract curve. aa is the isoquant of wheat and bb that of watches. They are tangent to each other at point N on the factor price line pp under free trade. When a tariff is imposed on the capital intensive watch-imports, their domestic price rises and their imports decline. The country produces

more watches and less wheat. This leads to the diversion of capital and labour from wheat production to watch production. This is shown by the shifting of the isoquant aa of wheat downward to a_1a_1 and of the isoquant of watches bb upward to b_1b_1 . The new production point is M where the two isoquant a_1a_1 and b_1b_1 are tangent at the factor price line P_1P_1 . Since watches are capital intensive, the relative demand for capital rises.

There being perfect factor mobility within the country, both capital and labour will move into the watch industry from the wheat industry. But the demand for capital will be greater than that of labour because watches are relatively more capital intensive. This tends to bid up the relative price of capital. This leads to the substitution in both industries of labour for capital. It means that the capital-labour ratio falls in the production of both commodities. This is shown by the *less steep* slope of the factor price line P_1P_1 as against the pp line before the imposition of the tariff. As more labour is used with each unit of capital, the marginal productivity of labour and its real wages fall. Conversely, the fall in the capital-labour ratio means that the marginal productivity of capital and the real return to capital have risen in the production of both commodities. The conclusion emerges that as the country moves from point N to M with the imposition of a tariff, its national income is lowered. The return to the scarce factor capital increases and the wage of the abundant factor labour falls in both relative and absolute terms with the reallocation of resources.

CRITICISMS

The Stopler-Samuelson theorem has been criticised by Metzler, Lancaster and Bhagwati.⁹

1. The Metzler Paradox. Metzler has criticised the Stopler-Samuelson theorem for assuming that the terms of trade of the tariff imposing country remains unchanged. He has shown that the imposition of a tariff improves its terms of trade to such an extent that the price of the importable good falls and the relative price of the exportable good rises domestically. This means that it is more

profitable to produce the exportable good. Consequently, labour and capital will move from the import-competing industry to export industry. In such a situation, the reward of the factor being used more intensively in the export industry will relatively rise and that of the other factor will relatively fall. This will improve income distribution in favour of the abundant factor and against the scarce factor. This is in contradiction to the Stolper-Samuelson theorem and is called the *Metzler Paradox* or *Metzler Effect*.

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9. L. Metzler, 'Tariffs, the Terms of Trade and the Distribution of National Income', *JPE*, Feb. 1949. K. Lancaster, 'Protection and Real Wages', *EJ*, June 1957, J. Bhagwati, 'Protection, Real Wages and Real Incomes'; in *Trade, Tariffs and Growth*, Ch. 7, 1969.

The Metzler Paradox is explained in Fig. 15 where OE is the offer curve of England for wheat and OG is the offer curve of Germany for watches. Point A represents the free trade equilibrium where OE and OG curves intersect. England exchanges OC of wheat for OL of watches at OT terms of trade. When England imposes the tariff, its offer curve OE shifts of OE_1 and the new equilibrium is B at which OC_1 of wheat is

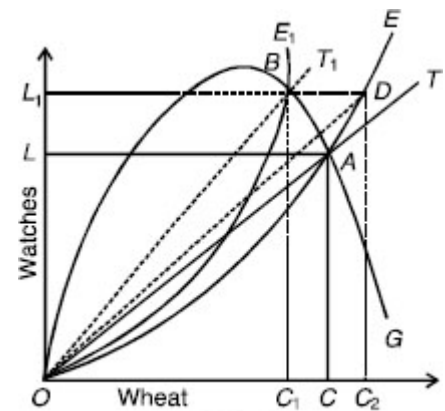


FIG. 15

exchanged for OL_1 of watches at OT_1 terms of trade. As Germany's offer curve OG is inelastic in the AB range, there is improvement in the terms of trade of England *i.e.* the slope of $OT_1 > OT$. Consequently, England exchanges a smaller quantity OC_1 of its exportable wheat for a larger quantity OL_1 of its importable watches, *i.e.* $OL_1 > OL$. These new terms of trade mean an improvement in the price of the exportable good wheat. So far as the effect of tariff on the relative price of the importable watches in the domestic market is concerned, it will be lower. The total amount of tariff being DB , the domestic consumers pay OC_2 of exportable wheat in order to get OL_1 of importable watches. Thus domestic relative price P_x/P_M

= price of wheat/price of watches has increased. It means that the relative price of exportable wheat has increased and of the importable watches has fallen in the domestic market after the imposition of tariff, i.e. $OC_2/OL_1 < OC/OL$. This is also clear from the slope of the ray OD which is steeper than the ray OA . Thus with the fall in the relative price of the importable good and rise in the relative price of the exportable good and the home country will produce more of the exportable good. As a result, capital and labour will move from the import-competing capital intensive industry to the labour-intensive export industry. This will increase the wages of the workers relative to the return on capital. This conclusion invalidates the Stopler-Samuelson theorem.

2. The Lerner Paradox. The Lerner Paradox like the Samuelson-Stopler theorem explains the income distribution effect of a tariff in terms of constant terms of trade. But arrives at a different result than the latter theorem. When a tariff is imposed at constant terms of trade, it raises the domestic price of the tariff-ridden commodity. This is because the tariff creates an excess demand for the importable commodity watches, the domestic demand for it being relatively inelastic. In his analysis, Lerner includes in the domestic demand for imports both consumers' demand and government demand. He assumes that the government spends the entire tariff revenue on the imported good. The income-distribution effect in Lerner's case is the transferring of income from consumers to the government in the form of tariff revenue. This leads to the reduction in the consumption of importable good by consumers and its increase by the government. Lerner assumes that the marginal propensity to consume the importable good by the government is greater than that of consumers. Therefore, income distribution in favour of the government will raise the demand for the importable good. This conclusion goes against the Stopler-Samuelson theorem that the imposing of tariff reduces the demand for the importable

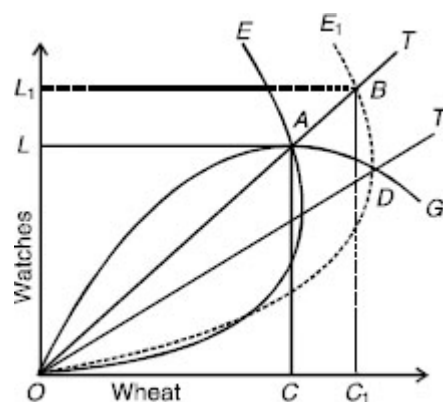
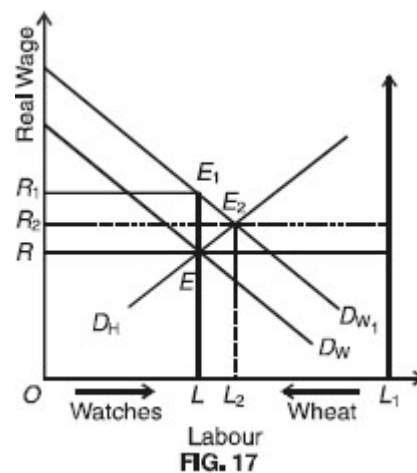


FIG. 16

good. The Lerner Paradox is illustrated in Fig. 16 where OE is the offer curve of England and OG of Germany. Point A is the free trade equilibrium at OT terms of trade. Where these two curves intersect with England exporting OC of wheat and importing OL of watches. With the imposition of tariff, the offer curve OE shifts to OE_1 . At constant terms of trade OT , the demand for imports of watches increase by more than that for wheat, $LL_1 < CC_1$. This is because the offer curve OE_1 is inelastic in the range DB . As the demand for imports is inelastic, it raises the domestic price of the importable good. The new equilibrium terms of trade line OT_1 which is to the right of the OT line shows worsening of the terms of trade for the tariff-imposing country, England. The increase in domestic price reduces consumer demand and increases that of the government whose tariff revenue raises the demand for the imported good. This is inconsistent with the Stopler-Samuelson theorem that tariff reduces the demand for importable good.

3. Factors not Mobile. The Stopler-Samuelson theorem analysis the effects of a tariff on income distribution on the assumption of perfect factor mobility. This is possible in the long run but not in the short run when one of the factors, say labour, is completely mobile and capital is specific to the production of both commodities. In such a situation, the imposition of a tariff on watches will reduce the real wage in this industry in terms of watches and raise it in terms of the exportable wheat. These effects of tariff on income distribution go against the Stopler-Samuelson theorem. Take Fig. 17 where the horizontal axis measures the total supply of labour OL_1 available in the home country for the production of both watches and wheat and the vertical axis measures the real wage rate. D_H is the demand curve for labour in producing wheat. It measures the MPL (marginal product of labour) at each level of employment. D_W is the demand curve for labour (MPL) in producing watches. The free trade



labour market equilibrium is at E where the real wage measured in wheat is OR in both industries and OL workers are employed in the watch industry and L_1L in the wheat industry. When a tariff is imposed on importable watches, the demand curve for labour in the watch industry shifts upward from D_W to D_{W1} by the full amount of the tariff, RR_1 (RR_1/OR). When the import of watches is restricted, the demand for domestic watches rises which leads to increase in the demand for labour. As a result, the real wage rises from OR to OR_2 in the watch industry in terms of wheat. But the real wages of labour will be reduced in terms of watches from OR_1 to OR in the wheat industry because the MP of labour falls in the wheat industry with the reduction in demand for labour in this industry. On the other hand, the inflow of labour in the import-competing industry will reduce the capital-labour ratio which raises the MP of capital and its return in the watch industry in terms of wheat industry. Conversely, the outflow of labour from the wheat industry will bring a decline in the MP of capital and its return in the wheat industry in terms of watch industry. These results are consistent with the Stolper-Samuelson theorem that when both labour and capital are mobile, the real wage of labour falls and the return on capital rises in the import-competing industry.

4. Inflow of Scarce Factor. As a corollary to the above, if the importable good on which tariff is imposed is intensive in the relatively scarce specific factor, it may lead to its inflow into the home country. If the scarce factor happens to be capital and flows into the country along with the capital-intensive commodity, there will be equalisation of factor prices and the effect of tariff on income distribution will be negligible. The Stolper-Samuelson theorem fails to take into consideration this possibility.

5. Neglects Consumption Pattern. Lancaster points out that in trying to avoid the index number problem, Stolper and Samuelson “merely succeeded in avoiding the frying-pan for the fire.” According to Lancaster, they ignore the consumption pattern of the country's citizens. People may be so biased towards the labour-intensive commodity that comparative advantage would necessitate its import.

The imposition of tariff would then benefit not the relatively scarce factor capital but the abundant factor labour. Lancaster thus concludes that “protection will raise the real wage of labour if, and only if, the country imports the labour-intensive good.”

6. Not Universally Valid. Bhagwati consider the income distribution effects of a tariff as not “a universally valid generalisation. He points towards three alternative formulations of the Stopler-Samuelson theorem concerning the impact of protection on the real wages of factors. He calls the first as the *Restrictive Stopler-Samuelson Theorem* which is confined to the case of a prohibitive tariff and excludes non-prohibitive tariff and states that prohibitive protection necessarily raises the real wage of the scarce factor. He calls the second as the *General Stopler-Samuelson Theorem* which includes both prohibitive and non-prohibitive tariffs. The second states that protection-prohibitive or otherwise necessarily raises the real wage of the scarce factor. He calls the third formulation as the *Stopler-Samuelson-Metzler-Lancaster Theorem* which states that protection, prohibitive or otherwise, raises the real wage of the factor in which the imported good is relatively more intense. Bhagwati does not agree with all the three formulations and gives his formulation thus : “Protection (prohibitive or otherwise) will raise, reduce or leave unchanged the real wage of the factor intensively employed in the production of a good according as protection raises, lowers or leaves unchanged the internal relative price of that good.”

CONCLUSION

The Stopler-Samuelson theorem can be said to provide valuable insight into the effects of a tariff on income distribution. It is no longer possible to believe simply that free trade will benefit all groups of society. On the contrary, presumption is that a tariff will benefit one of the factors of production at the expense of the other. History has many examples of economic groups which have tried to foster their cause by demanding tariffs. Thus the general result of the Stopler-Samuelson theorem is that a tariff lowers the national income but benefits the country's scarce factor of production. But it cannot be

used as a forceful argument for protection by labour unions in labour scarce countries to raise real wages because it is based on the rigid assumptions of a two-commodity two-factor model and full employment of resources. The real wages of labour can be increased in such countries by monetary and fiscal measures in a better way.

EXERCISES

1. Explain the various types of tariffs. Show with the help of partial equilibrium diagram the price, protective, consumption, revenue and redistribution effects of a tariff.
2. What are tariffs? Explain the effects of a tariff on the terms of trade under general equilibrium analysis.
3. What is the tariff which will maximise a country's gain, improving the terms of trade more than the volume is reduced? [Hint : Optimum tariff]
4. Critically examine the effects of tariffs on (a) the level of employment, (b) income distribution.
5. What do you mean by optimum tariff? Under what conditions optimum tariff is likely to be high or zero?
6. Critically examine the income distribution effects of a tariff.
7. Write notes on : The Metzler Paradox, The Lerner Paradox.



EFFECTIVE RATE OF PROTECTION

MEANING AND MEASUREMENT

The principal objective of a tariff is to discourage imports in order to encourage domestic production of the protected industry. Until recently, the protective effects of a tariff were measured in terms of the official nominal rate of tariff (*ad valorem*) on the imports of *final products*. It was believed that a higher nominal rate of tariff would bring a larger increase in the output of the protected industry. But the height of various duties imposed on imports by a country is not likely to give a true picture of the degree of protection afforded by the nominal tariff rate. For the nominal tariff rate does not take into consideration the height of the duty on imported intermediate products and raw materials which are used in the domestic import competing industries. The theory of effective rate of protection takes into account duties levied on such raw materials and intermediate products. According to Balassa, “Under the usual assumptions of international immobility of labour and capital, the effective rate of duty will indicate the degree of protection of value added in the manufacturing process”¹. Thus the effective protection rate expresses the relationship between the tariff and the value added.² It measures the actual rate of protection that the nominal tariff rate provides to the domestic import competing industry. Thus the effective rate of protection is the tariff on value added. The effective rate of protection is defined as the percentage increase in the value

added of an industry per unit of output as a result of the tariff relative to the free trade situation but with the same exchange rate.

The effective rate of protection is measured by Corden's modified formula.³

where e_t is the effective rate, t_n the nominal tariff rate on the final product, a is the ratio of the value of the imported input to the value of the final product in the absence of tariff, and t_i the tariff rate on imported inputs, $(1-a)$ is the proportion of the final production accounted for by value added.

1. B. Balassa, "Tariff Protection in Industrial Countries: An Evaluation." JPE, December, 1965.

2. Value added is the difference between the value of output and the value of inputs.

3. W.M. Corden, "The Structure of a Tariff System and the Effective Protective Rate," JPE, June 1966.

ASSUMPTIONS

The theory of effective rate of protection is based on the following assumptions :

1. Primary factors are available in fixed quantities.
2. They are immobile between countries.
3. Full employment is maintained through appropriate fiscal and monetary policies.
4. The physical input-output coefficients are fixed.
5. All tariffs are applied in a non-discriminatory manner.
6. The elasticities of demand for all exports and the elasticities of supply for all imports are infinite.

7. All traded goods continue to be traded even after tariffs so that the domestic price of each importable good is given by the foreign price plus tariff.

8. All inputs are traded.

EXPLANATION

Given these assumptions, the difference between nominal and effective rates of protection can be explained with an example. Suppose a domestically manufactured colour TV set costs Rs. 5000. Of this, the unit value added or the contribution of domestic primary factors is Rs. 2000 (40% of the final product) and of imported inputs is Rs. 3000 (60% of the final product). Under free trade, all inputs are imported as world prices and an imported TV also sells at Rs. 5000 in the domestic market.

Now the government decides to protect the domestic TV industry by importing a nominal (*ad valorem*) tariff of 10% on an imported TV. Its price in the domestic market, rises to Rs. 5500 (Rs. 5000 original price plus Rs. 500 on account of import duty). Thus the domestic TV industry enjoys a nominal protection of 10%.* Assuming that there is no duty on imported inputs of TV, the unit value added of the domestic TV industry increases by the full amount of Rs. 500. Thus the unit value added increases from Rs. 2000 to Rs. 2500 (Rs. 2000 + Rs. 500), an increase of 25%. In this case, the effective rate of protection is 25% which exceeds the nominal rate of 10%.

Introducing the same information in the formula

$$e_t = \frac{t_n - a t_i}{1 - a}$$



where 10% is the nominal tariff, 60% is the value of imported inputs in the final product and the tariff rate on imported inputs, $t_i = 0$. It shows that $t_i = 0$, $e_t > t_n$.

Now suppose a 5% tariff is imposed on the imported TV inputs for the domestic industry, along with the nominal tariff of 10 per cent. This would cost the TV industry Rs. 150 per TV by raising the domestic prices of inputs from Rs. 3000 to Rs. 3150. This increases the unit value added of the industry by Rs. 350 (Rs. 500 from 10 per cent nominal tariff minus Rs. 150 from 5 per cent duty on imported inputs). The effective rate of protection is 17.5 per cent when the unit value added increases from Rs. 2000 to Rs. 2350.^{**} In terms of the formula



* The formula for the nominal rate of protection is :



where P_1 is the domestic price of the final product with tariff and P is its world price without tariff.

It shows that if the nominal tariff on the final product is higher than on the imported inputs, the effective rate of protection is higher than both the nominal rates on the final goods and imported inputs : If $t_n > t_1$, then $e_t > t_n > t_1$

If the nominal tariff on imported inputs equals the nominal tariff of 10 per cent on the final product, the effective rate of protection is also 10 per cent. In terms of the formula



Thus if the nominal tariff rates on the final product and imported inputs are the same, the effective rate of protection equals the

nominal rates :

If $t_n = t_i$, then $e_t = t_n = t_i$.

Suppose the tariff on imported inputs is raised to 15 per cent. The unit value added increases by Rs. 50 (Rs. 500 from 10 per cent nominal tariff on the final product *minus* Rs. 450 from 15 per cent duty on imported inputs). The effective rate of protection is then 2.5 per cent with the increase in the unit value added from Rs. 2000 to Rs. 2050*. In terms of the formula



It shows that if the nominal tariff on the imported inputs is greater than that on the final product, the effective rate of protection is less than both the nominal rates : If $t_n < t_i$, then $e_t < t_n < t_i$. Lastly, we take a case where the effective rate of protection may be negative. Suppose the nominal rate on the imported inputs is 20 per cent. This means that the unit value added declines by Rs. 100 (Rs. 500 Rs. 600). As a result, the effective rate of protection is *minus* 5 per cent.



** The formula for this is  where V_1 is the unit value added after duty and V unit value added under free trade.

This shows that if $t_n < t_i$, then $e_t < 0$.

The effective rate of protection is illustrated diagrammatically in Fig. 1 where in order to simplify the diagram the demand curve is not shown because it is not affected by the imposition of a tariff. The horizontal axis measures the amount of labour and the quantity of

TV. The vertical axis measures the wage of labour and the price of TV.

Assuming that there is only one primary factor, labour, its supply curve is shown as S_L . S_1 is the supply curve for the final product TV. OP is the constant world price under free trade at which the domestic production of TV and the amount of labour used equal OL . The unit value added is given by LB/LA . When a nominal tariff is imposed on the final product, TV, its domestic price rises from OP to OP_2 and the domestic production of TV increases from OL to OQ_2 . With the imposition of an additional nominal tariff on the imported inputs of TV, the unit cost rises which is shown by the shifting of the supply curve S_1 upwards to S_2 . Consequently, the production of TV falls from OQ_2 to OQ_1 . The net increase in the production of TV is equal to LQ_1 . This is due to PP_1 —the difference between increase in the domestic price of TV equal to PP_2 and the increase in the unit cost of production equal to P_1P_2 , that is, $PP_1 = PP_2P_1P_2$. The effective rate of protection is obtained by dividing PP_1 by the value added or the contribution of the primary factor, labour, in our example. Thus,

$$e_t = \frac{PR_1}{LB} = \frac{CD}{Q_1D}$$

ITS LIMITATIONS

The theory of effective rate of protection has a number of theoretical and practical limitations which are discussed below:

1. Restrictive Assumptions. The theory of effective rate is based on restrictive assumptions. If some of the assumptions like fixed input-output coefficients and availability of primary factors in fixed quantities are relaxed, the actual unit value added may fall below

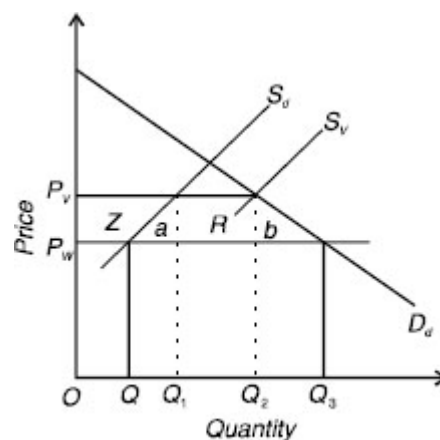


FIG. 1

that given by the effective rate. Moreover, the assumption that the supply of imported inputs is infinite does not hold in large countries.

2. Partial Equilibrium Nature. The main theoretical limitation relates to its partial equilibrium nature. The theory assumes a fixed relationship between each input and the final product in calculating the effective rate. In fact, when relative factor price change, the values of inputs also change. It is, therefore, not possible to calculate the correct value of the effective rate.

3. Drawback in Index. The basic drawback in the effective rate of protection index is that it measures the effect of the effective protection upon particular industries without taking into account its indirect effects on other industries.

4. Difficulties of Measurement. Another difficulty arises in measuring the height of a tariff and comparing it with other country. If the method of weighted average is used no account can be taken of in the country's trade when the tariff is so high that imports of such goods totally stop. If the method of unweighted average is used, duties on goods with little importance in the country's trade rank almost equal with the major imports.

5. Malallocation of Resources. Effective rates of protection on industries lead to resource allocation. However, they may bring about malallocation of resources. The prospect of receiving higher rewards may lead to the flow of primary factors into industries with the highest protective rates and away from industries with the least protective rates or negative protective rates, and from non-traded activities. Thus resources are likely to be misallocated.

6. Ignores Non-traded Inputs. This concept assumes that all inputs are traded. This is unrealistic because some inputs are always non-traded. As a result, their prices enter into the value of total output and inputs. If the effect of effective protection on non-traded inputs is not taken into account, the rates of effective protection will be overestimated.

ITS IMPORTANCE

The importance of the concept of effective rate of protection lies in the following.

1. For Producers. The effective tariff is important for producers in their production decisions when a tariff is imposed on imported inputs and raw materials. That is why, producers care about the effective protection they receive for their industries rather than about the nominal protection.

2. Indicator of Factor Income. The theory of effective protection takes into account the value added created by primary factors of production. Effective rates are the indicators of income distribution in the short because value added is what these factor receive.

3. Degree of Protection. The effective rate of protection is based on the concept of value added. Value added being the difference between the value of outputs and inputs, the effective rate of protection is important in measuring the degree of protection not only on output but also on inputs.

4. Volume of Trade. When the nominal tariff rate is reduced on imported raw materials and inputs for use in domestic industries, it is intended to expand the volume of trade. But it leads to a rise in the effective tariff rate of the industry using them. This may adversely affect the volume of trade of the protected industry.

5. Tariff Structure. The concept of effective rate of protection helps in understanding the nature of tariff structure of a country. Usually, the nominal tariff rates are low for raw materials and high for finished goods. Keeping the interest of producers, the effective tariff on raw materials is kept low.

6. Infant Industries. To expand and protect infant industries, the concept of effective tariff suggests that the country should reduce tariff rates on imported raw materials and intermediate products instead of imposing high nominal tariff rates.

7. Resource Allocation. The importance of the effective rate of protection also lies in shedding light on “the direction of the resource-allocation effects of a protection structure”. The effect of any tariff structure is to move resources from industries with low effective rates of protection to industries with high rates because what resources earn in an industry is the value added. Therefore, to find out the effects of a country's tariff structure on its resource allocation among the various industries, economists calculate the effective protective rates for each industry.

8. For Government. Government officials who bargain with foreign countries on tariffs use effective protective rate calculations to discover the effects of proposed tariff rates on the various industries.

Conclusion. The theory of effective rate of protection has been empirically studied by Balassa, Johnson and a few other economists, Balassa's study shows that the effective rates in some of the industrial countries are substantially larger than nominal rates. Thus industrial countries depend more on tariffs for protection than on other protective devices. Johnson's^{*} study reveals that the gap between effective and nominal tariff rates is particularly large in the case of products having special interest for developing countries. Raw materials from developing countries are allowed duty free or at very low rates, semi-manufactured goods at higher rates, and fully manufactured goods at extremely high tariff rates. The latter products enjoy high effective rates of protection in industrial countries. This tendency naturally discourages the expansion of processing and manufacturing industries in developing countries.

The theory of effective rate of protection shows that the reduction on nominal tariff rate of an equal percentage brings about different degrees of changes in the effective rates of protection. It is, therefore, not advisable for developing countries to argue and demand across-the-board tariff reductions on all products from industrial countries. If the former insists on reductions in tariff on their primary products, the effective rate of protection will increase against their manufactures. In such a situation, they will be at a

disadvantage *vis-a-vis* developed countries because exports of manufactures are more important to them for long-run development.

EXERCISES

1. What do you mean by effective rate of protection? Explain with examples how is it different from nominal rate of protection.
2. Distinguish between nominal and effective rate of protection. Explain the limitations of the effective rate of protection. What are its implications for developing countries?
3. Explain the concept of effective rate of protection. Give its importance.

* H.G. Johnson, *Aspects of the Theory of Tariffs*, 1971.



NON-TARIFF BARRIERS (NTBs)

1. MEANING

Non-tariff barriers (NTBs) are obstacles to imports other than tariffs. They are administrative measures that are imposed by a domestic government to discriminate against foreign goods and in favour of home goods.

2. CLASSIFICATION OF NBTs

NBTs are distortions to international trade. There are varied devices which have originated in recent decades to restrict imports. They are usually classified as under:

Quantitative Trade Restrictions are import quotas, tariff quotas, voluntary export restraints (VERs), orderly marketing arrangements or agreements (OMAs), multifibre arrangement (MFA), etc. *Fiscal Measures* relate to export or production subsidies, export credit subsidy or tax concessions on exports, exports tax, government procurement, antidumping duties, countervailing duties, tied aid, etc.

Administrative or Standards and Regulations refer to health, sanitary and safety regulations, environmental (pollution) controls, customs valuation and classification, marking and packaging requirements, imports licensing procedures, state trading and government

monopolies, delaying imports at the borders or customs, ordering civil servants to buy goods made at home or publicity campaign to “buy” home produced goods, local content requirement, etc. *Others* include bilateral trade agreements, dumping, international commodity agreements, international cartels, etc.

3. TYPE OF NBTs

It is not possible to explain all types of NBTs. However, a brief study of the main types of barriers (distortions) follow in this and subsequent chapters.

VOLUNTARY EXPORT RESTRAINTS (VERs)

A voluntary export restraint (VER) is an agreement by an exporter country's exporters or government with an importing country to limit their exports to it. It is entered into by the importing country when its domestic industry is suffering from large imports. The limit to imports may be set in terms of quantity, value or market share. VERs are seldom 'voluntary'. They are accepted by exporters lest they may be restricted to trade by more powerful trade barriers on the part of the importing country. If, however, the exporting country expects to make more profit by exporting less at higher prices, it may agree voluntarily to restrict its exports. VERs have been used by U.S., EEC and other industrialised countries to restrict exports of steel, TVs, automobiles, textiles, etc. from Japan and developing countries.

VERs have been adopted by countries because the use of quotas and tariffs has been forbidden by the GATT. But VERs do not come under the GATT rules.

The effects of a VER on the importing country are illustrated in Fig. 1, where D_d is the domestic demand curve for the goods and S_d is the domestic supply curve of the goods which are supplied to the foreign country at the world price OP_w . At this price OQ is supplied by domestic producers and QQ_3 is imported. Now if instead of an

import quota of Q_1Q_2 , a VER of the same quantity is adopted by an exporting country, its effects will be equivalent to that of a tariff or an import quota.¹ The only difference between VER and import quota is the rent or excess profit which goes to the suppliers of the exporting country. With VER, the domestic demand curve D remains the same, but the supply curve S_d shifts to S_v , so that the equilibrium occurs

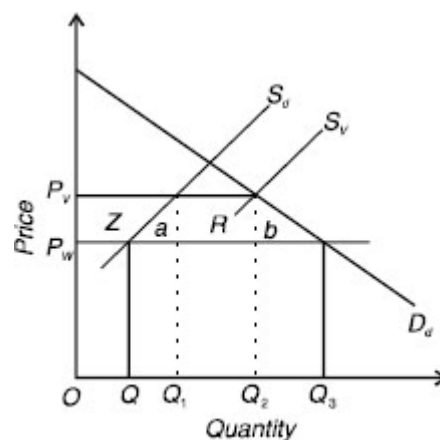


FIG. 1

at a higher price OP_v . The supply curve S_v with the VER shows that at the price OP_v , the quantity OQ_1 is domestically supplied by the importing country and Q_1Q_2 is VER on its imports. By selling this quantity to the importing country, the suppliers of the exporting country are able to secure rent from the VER. This is equivalent to the area $a + R + b$ which is the national net welfare loss of the importing country in Fig. 1. The total loss of consumer surplus to the importing country is the area $Z + a + R + b$ which is an equivalent of tariff or import quota. The area Z is transferred from domestic consumers to producer. The areas a and b represented by the two triangles are the net national loss. The area R represents the revenue which goes to the suppliers of exporting country from the VER which is a loss to the government of the importing country and is thus its net welfare loss.

Another effect of VER on the importing country is that its terms of trade deteriorate instead of improving the relation to the exporting country. This is because it pays the higher domestic price of the exporting country's goods rather than its lower world price.

Last but not the least, VERs are discriminatory because they are entered with the least cost exporters. But they may lead to imports from higher-cost exporters, thereby increasing the imports bill of the importing country.

EXPORTING COUNTRY

So far as the effects of VER on the exporting country are concerned, it gains from the excess profit (rent) and improvement in its terms of trade. Therefore, it will prefer a VER to an equivalent tariff or import quota imposed by the importing country. Since VERs are not permanent, the exporting country can pressurise the importing country in the long run to relax or remove the VERs. It can thus dissuade the importing country to impose permanent tariff or quotas.

1. For understanding, students should first read the “Equivalence of Tariffs and Quotas” in the chapter on Import Quotas.

When a VER restricts exports, there is surplus production with exporters. Consequently, the price of the exportable goods falls and there are reduced earnings and losses. It may also lead to shifting of resources to other more productive industries. If exporters form a cartel or a VER relates to a large industry, the VER will again reduce exports till new markets are found. This may again lead to loss and reallocation of resources. Thus, there may be overall economic losses to an exporting country from a VER.

EXPORT SUBSIDY

An export subsidy is a government grant given to an export firm (or producers) to reduce the price per unit of goods exported abroad. It enables the firm to sell a larger quantity of its goods at a lower price in the export market than in the home market. Export subsidies may be direct and indirect. But direct export subsidies are prohibited under the GATT agreement. Therefore, governments resort to indirect export subsidies in various forms such as subsidised credit, refunds on tariffs on their inputs, priority in the allocation of scarce raw materials or foreign currency, assistance in financing such promotional activities as trade fairs, market research, advertisements, tax concessions, etc.

EFFECTS OF AN EXPORT SUBSIDY

Fig. 2 shows the economic effects of an export subsidy under partial equilibrium in the case of a small country whose export subsidy has no impact on the importing country. Suppose D and S are the domestic demand and supply curves for some exportable goods and the domestic marketing clearing (equilibrium) is at point E . With the world price OP_w which is above the domestic price (E), the domestic demand is OQ_1 and domestic supply is OQ_2 .

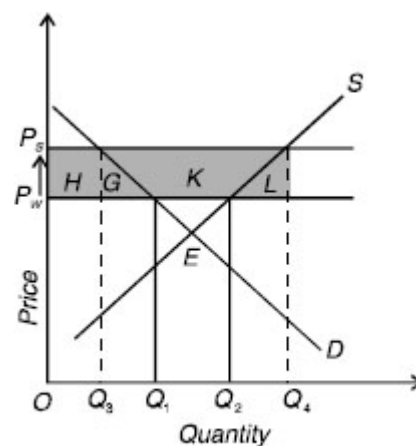


FIG. 2

Supply being greater than demand $OQ_2 > OQ_1$, the country exports Q_1Q_2 quantity. To encourage the expansion of exports, the government gives $P_w P_s$ subsidy for each unit exported. This raises the domestic price to OP_s for both the domestic producers and consumers. At this price, the demand for the goods falls to OQ_3 , but its supply increases to OQ_4 . The world price being OP_w , the subsidy has compensated exporters for the difference between OP_s and OP_w prices and exports have expanded from Q_1Q_2 to Q_3Q_4 . Since the price which consumers have to pay after subsidy increases, consumers' surplus is reduced by the area $H + G$ in the figure. But the gain in producers' surplus is the area $H + G + K$. The total cost of subsidy to the government is the quantity exported times per unit subsidy which is $G + K + L$ area. The net welfare loss to the country are the triangles G and L . In brief,

Gain in Producers' Surplus	=	$H + G + K$
Loss in Consumers' Surplus	=	$(-) H + G$
Cost of Subsidy	=	$(-) G + K + L$
Net Welfare Loss	=	$G + L$

This net welfare loss to the country is due to increase in the cost of subsidised goods by more than the export revenue from it.

On the other hand, if the country subsidising its product happens to be large, its cost of subsidy increases more. As its exports expand

more, the world price is reduced and its terms of trade deteriorate consequently, its net welfare loss is greater.

SUBSIDY VS IMPORT TARIFF

The effects of an export subsidy are equivalent yet opposite to that of an import tariff. *First*, in both cases, a difference is created between domestic and international prices. An export subsidy raises the domestic price of exports above the world price, while an import tariff raises the price of imports above the world price.

Second, an export subsidy tends to shift resources towards the exportable goods. But an import tariff tends to divert resources towards the production of domestically consumed goods.

Third, there is a net revenue loss to the government from an export subsidy, while there is a net revenue gain to the government from an import tariff. However, in the long run, an export subsidy can be self-financing by encouraging increase in output of the exportable goods.

Fourth, a subsidy to domestic producers will replace imports and raise real savings of the country. The same gain in real income can be achieved by a tariff of the same per cent with the rise in the domestic price of the product. But it will lead to loss of consumer surplus owing to the restriction in consumption of the product.

Fifth, a subsidy adjusts the domestic price structure to the external price structure and thus makes exports to compete in world markets. On the other hand, a tariff adjusts the domestic price structure to the domestic cost structure. This may lead to inefficiencies and make it difficult for exports to compete in world markets.

Lastly, from the pointview of LDCs, export subsidy is a better device than an import tariff because it leads to economic development through export promotion, whereas a tariff aims at import substitution. But an import tariff is also essential for such countries to earn revenue to overcome balance of payments problem.

EFFECT OF SUBSIDY ON IMPORTING COUNTRY

So far as the importing country is concerned, its terms of trade improve when a large country subsidises its exports. For the world price of the subsidised product falls and it pays a lower price for its imports. But low price adversely affects its income distribution. When prices are lowered, they adversely affect labour and capital in the industries competing with subsidised imports. Though consumers' gain from lower prices of subsidised goods, yet producers are losers of the same or similar goods in the importing country. So subsidising exports is regarded as an unfair trading practice and the importing country imposes a countervailing duty on such imported goods.

COUNTERVAILING DUTY

A countervailing duty is an import duty or tariff imposed by an importing country to raise the price of a subsidised export product to offset its lower price.

The effects of a countervailing duty on the exporting and importing country are illustrated in Fig. 3.

Assumptions. This analysis assumes that (a) the export good is subsidised; (b) the supply of the good is perfectly elastic; and (c) the importing countries imposes the duty on this good equal to the export subsidy.

Explanation. Given these assumptions, the import demand for the good is shown as D_M curve and the supply curve as $P_w S$. Before the subsidy, OQ quantity of the good is being exported and imported at OP_w price. When the subsidy is given to the good, the supply curve $P_w S$ shifts down to $P_s S_1$ by the full amount of the subsidy. Assuming that there is no change in demand for imports with the fall in price to OP_s , the new equilibrium is

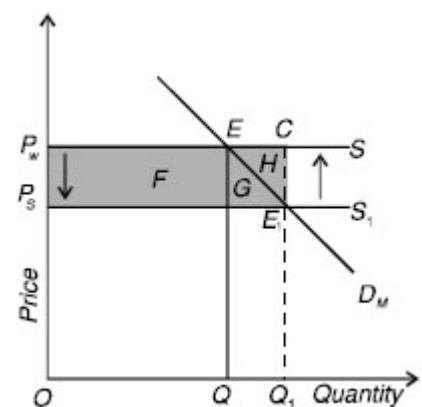


FIG. 3

established at point E_1 and imports increase from OQ to OQ_1 . As a result, foreign consumers gain the area $F + G (= P_w PE_1 EE)$ as consumers' surplus. The cost of subsidy to the exporting country is area $F + G + H (= OQ_1 \times P_w P)$. Since the gain in producers' surplus is $F + G$, therefore the loss from export subsidy is the triangle H . Even though the subsidy benefits the foreign consumers of the good, the importing country suffers a loss in production of this good due to its lower price equal to the area H . To offset this, it imposes a countervailing duty equal to the export subsidy. As a result, the price of the product increases from OP_s to OP_w and goes back to presubsidy level. Now the entire consumers' surplus is wiped out in the importing country. But the government earns revenue from the duty equal to the area F , thereby compensating some loss in consumers' surplus. On the other hand, exports are reduced in the exporting country by the duty but the government saves $G + H$ area as export subsidy.

OTHER NON-TARIFF BARRIERS

Besides, import quota, dumping, exchange controls, export subsidies, countervailing duties, VERs, etc., there are other non-tariff barriers which are explained briefly as under.

GOVERNMENT PROCUREMENT

Governments discriminate between domestic and foreign suppliers of goods and services required by government departments. The discrimination may be in various ways. In certain countries, there is legislation to buy domestic goods and services even if they are available from abroad at low rates. For instance, the Buy-American Act requires US Government agencies to accept domestic bids, even if they are upto 12 per cent above foreign bids. It is 50 per cent in the case of the Defence Department. In some other countries, tenders for government purchases are called only from domestic suppliers. Japanese government agencies do not consider foreign bids. Governments also exercise discretionary powers not to accept or reject bids from foreign suppliers. Sometimes specifications of

tenders are written in such a manner as to exclude foreign suppliers. The aim is to support domestic industry. Its impact is like a tariff but without the revenue. In fact, the cost of procurement of goods and services by the government increases.

CUSTOMS VALUATION AND CLASSIFICATION

Often custom officials value imports at a higher price above the specified tariff rate for goods. For instance, the US practice up to April 1979 was to value certain chemical imports not at their invoice price but at the wholesale price of American chemicals produced in it which was higher. Another custom valuation procedure is to deliberately delay the clearance of goods by custom officials so as to increase the cost of importing goods, as an import tariff does. Further, various commodities are described in the customs list and separate tariff rates are prescribed for each category. The customs officials often charge high tariff rates by their own categorisation of goods with high rates. Such procedures restrict imports because they make them dearer and non-competitive in the local market. They are meant to create uncertainty among importers.

IMPORT LICENSING PROCEDURES

Many countries adopt complicated and expensive import licensing procedures to restrict imports. Import licensing are often auctioned to the highest bidders. In other cases, importers are required to deposit large sums of money with the government for getting import licenses. There are also administrative hurdles which importers have to overcome in filling lengthy forms, obtaining permits and getting clearance of goods through customs. Such procedures restrict imports like import tariffs.

LOCAL CONTENT REGULATIONS

In many developing countries, import of manufactured products like cars, TVs, computers, etc. are restricted if they do not meet local content regulations. Foreign manufacturers of cars in India are required to have sufficient local content in the form of spare parts

manufactured within India. This is done to protect domestic producers of parts from foreign competition. Such local content regulations discourage foreign investment rather than trade.

TECHNICAL BARRIERS

Technical barriers are of various types which restrict imports. They include health and safety regulations, sanitary regulations, industrial standards, labelling and packaging regulations and so on. Such regulations impose additional costs on foreign suppliers of goods in order to restrict their imports. For instance, foreign car makers are required to comply with domestic safety and emission controls of U.S. and European countries while importing cars to them. The same can be said of health standards which require importers of eatables to adhere to certain quality, packaging, and other standards.

NTBs Vs TARIFFS

All NTBs described above tend to reduce imports and are similar in their effects of tariffs. Still tariffs possess certain advantages over NTBs.

1. Tariffs only disturb the market mechanism whereas many NTBs displace it.
2. Tariffs are transparent because they are visible to every person and organisation in terms of the percentage or advalorem duty. But NTBs are hidden from the public which does not know that they have been levied.
3. Tariffs are simple and easy to negotiate and implement than some of the NTBs.
4. Tariffs bring revenue to the government while little revenue accrues from NTBs.
5. NTBs lead to greater malallocation of resources than tariffs.

Despite the superiority of tariffs over NTBs, the NTBs are favoured by governments to protect consumers, producers and economies from foreign competition.

ROLE OF TRADE RESTRICTIONS IN PROMOTING ECONOMIC DEVELOPMENT

Developing countries adopt various types of trade barriers such as import licensing and quantitative restrictions. In addition, there are hidden import duties like stamps taxes, port duties, advance minimum deposit requirements, etc. Besides non-tariff barriers, there are tariffs which restrict trade. The various types of trade restrictions help in promoting the growth of LDCs in the following ways:

1. Protection. Tariff and non-tariff barriers to trade protect domestic industries from foreign competition, especially from MNCs. They help the high-priced domestic producers to learn and develop their industries to achieve the economies of large scale production and thus lower unit costs and prices. As a result, they are able to produce not only for the domestic market but also to export their products in the long run without protective tariffs.

2. Improving Balance of Payments. Trade restrictions by developing countries help in improving their balance of payments. The demand of such countries for industrial raw materials, capital equipment, consumer goods, etc. increases faster than the foreign demand for its exports. They export primary products which have a sluggish foreign demand and are therefore unable to import the former goods in exchange for exports. This leads to unfavourable balance of payments. Trade restrictions like tariffs, quotas, etc. not only bring revenue to the government but also help in the growth of domestic industries. Consequently, fewer consumer goods are imported, exports are expanded and the country is able to generate net foreign exchange earnings which improve its balance of payments and reduce foreign debt.

3. Increase in Savings and Investments. Trade restrictions encourage higher saving rates and investments. When trade restrictions such as tariffs, licenses, quotas, etc. are imposed to

protect domestic industries from foreign competition, the producers are able to raise the prices of their products and thus earn higher profits. When these profits are saved and reinvested, these lead to high rate of capital formation and growth of the economy. Foreign capital which is allowed in LDCs to help develop domestic industries generates profits which are partly reinvested in domestic industries.

4. Increase in Productivity. When direct foreign investments are allowed under trade restrictions, LDCs benefit from modern industrial techniques and know-how. They raise the technical efficiency of domestic industries by creating industrial skills and learning modern technology, lead to greater specialisation and increase in their productivity.

5. Increase in Employment. When domestic industries are protected by various trade barriers, they provide gainful employment to the existing unemployed and underemployed labour force in LDCs.

6. Increase in Public Revenue. Tariff and non-tariff restrictions to trade tend to increase government revenue. Advalorem and percentage taxes on imports collected at ports and border checkpoints are the cheapest and most efficient ways to raise government revenue. Other ways to raise revenue from trade barriers are import licensing, quota auctions, minimum deposit requirements for importers to deposit the value of imports in the government treasury, etc. Thus duties on imports are a relatively easy form of taxation to impose and collect by LDCs.

7. Self-Reliance. Import restrictions are the most important means to overcome economic dependence and achieve industrial self-reliance for LDCs. By protecting domestic industries and establishing importsubstitution industries, increasing capital formation through larger saving, investment and profits, improving balance of payments and reducing foreign debt, trade restrictions help LDCs to achieve the goal of self-reliance.

EXERCISES

1. What do you mean by non-tariff barriers? Explain them briefly.
2. What are Voluntary Export Restraints (VERs)? Explain their effects on the exporting and importing countries.
3. What are export subsidies? Explain the effects of export subsidy on the exporting and importing countries.
4. What is countervailing duty? Analyse its effects on the exporting and importing country.
5. Discuss the role of trade restrictions in promoting the economic growth of underdeveloped countries.
6. Write notes on : VERs, Export Subsidy, Countervailing Duty.



IMPORT QUOTAS

1. MEANING

Import quota is a protectionist device to restrict the supply of a good or service from abroad. Under an import quota, a fixed amount of a commodity in volume or value is allowed to be imported into the country during a specified period of time, usually a year. For this purpose, the government may issue an import license that it may sell either to importers at a competitive price or just give it to importers on the basis of first-come first-served. Alternatively, the government may limit the value of imports by providing the importers with a limited amount of foreign exchange for the purchase of a particular commodity to be imported by them. Import quotas aim at restricting and regulating imports in order to protect domestic industries from foreign competition and to correct disequilibrium in the balance of payments. They are also used as a retaliatory device.

2. OBJECTIVES OF IMPORT QUOTAS

The following are the objectives of import quotas :

1. To protect domestic industries from foreign competition by restricting imports.
2. To correct an adverse balance of payments restricting imports.

3. To control speculation in imports.
 4. To stabilize and maintain the internal price level by regulating imports.
 5. To save the country's foreign exchange for importing essential raw materials, capital goods and other important items.
 6. To discourage the import of luxury goods.
 7. To strengthen a country's bargaining on the basis of reciprocal trade agreements.
 8. To adopt retaliatory measures against the countries resorting to restrictive trade practices, such as tariffs and quotas.
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3. TYPES OF IMPORT QUOTAS

Import Quotas are of five types :

1. Tariff Quota. Under this quota system, a given quantity of a good is permitted to enter duty free or upon payment of relatively low duty. But imports in excess of that quantity are charged a relatively high rate of duty.¹ The tariff quota may be autonomous or agreed. The former is fixed by law while the latter is fixed by agreement between the two trading countries.

Merits. Tariff quota has the following merits :

1. Tariff quota combines the features of a tariff with those of a quota.
2. It restricts imports and saves scarce foreign exchange resources.
3. Tariff quota yields revenues to the country.
4. It is flexible in nature and can be increased or reduced by the government.

5. The prices of domestic goods are related to prices of foreign goods. Domestic prices exceed foreign prices of goods by the amount of custom duties.

6. Depending upon the nature and need of products in the home country, they may be allowed to be imported duty free or at low tariff rate.

Demerits. This system has the following demerits :

1. Tariff quota increases the inflow of imports when goods are allowed duty free or at low tariff rates into the beginning, As a result, the domestic price level of the importing country is disturbed.

2. When imports exceed the specified limit, set by the quota, the entire gains from the low tariff rate go to the exporting country.

3. This system is discriminatory because it raises the prices of imported goods for the poor while the rich enjoy their consumption.

2. Unilateral Quota. Under this system of quota, the total volume or value of the commodity to be imported is fixed by law or decree without any agreement with the other countries. The autonomously fixed quota may be either global or allocated. Under the global quota, the full amount of the quota may be imported from any one country. While under the allocated quota system, the total quantity of the quota is distributed among different countries.

Merits of the Global Quota System. The global quota system has the following merits :

1. A country can import its entire quota of a product from any one country at favourable terms.

2. To capture the market of the importing country the exporting countries lower the prices of their products. Consequently, the exporting country gains through favourable terms of trade.

Demerits. This system possesses the following demerits :

1. The importing country favours the neighbouring country by importing its entire quota of the product from it and thus discriminates against distant countries.
2. Under this system, the small exporter countries are at a disadvantage as against large exporters of products because they cannot supply the full quota.
3. This system does not give adequate protection to domestic producers.
4. This system leads to over-supply of goods in the market thereby reducing their prices.
5. As a corollary, when the quota is exhausted, shortages appear and prices start raising.

The allocated quota system tries to overcome the above defects of the global quota system. But even this system has some disadvantages:

1. This is a rigid system because the sources of imports are fixed by the allocated quota.
2. This system does not take into quality of products consideration cost and quality of products to be imported from a specific country.

[1.](#) G. Haberler, *op. cit.*, p. 347.

3. The allocation of a specific import quota to a particular country may lead to monopoly practices on the part of exporting firms.
4. It is discriminatory because it favours a country which is allocated a large import quota as against the other countries.

3. Bilateral Quota. Under this quota system, quotas are fixed by some agreement with one or more other countries. Haberler calls them agreed quotas.

Merits. This system has the following merits :

1. Quotas are fixed by bilateral negotiation. So there is no discrimination.
2. It reduces fluctuations in imports and their prices.
3. It avoids export monopolies.
4. This system is non-retaliatory because import quotas are mutually agreed between countries.

Demerits. The following are its demerits :

1. It promotes corruption at the time of agreement between the two countries.
2. It encourages monopoly firms in the exporting country when they are required to supply products.
3. It leads to the formation of international cartels when firms are asked to supply products by different countries.
4. The exporting country may raise the prices of products once the agreement is signed.
5. It encourages cut-throat competition among nations for entering into agreement.

4. Mixing Quota. This system requires domestic producers in the quota fixing country to use imported raw materials in certain proportion along with domestic raw materials to produce finished products. Thus the quota of raw materials to be imported are fixed in quantity by the government.

Merits. This quota system benefits the quota fixing country in two ways :

1. It protects domestic producers of raw materials from foreign competition.
2. It saves the foreign exchange of the country.
3. It encourages the production of raw materials, semi-finished and manufactured goods.

Demerits. The mixing quota system has the following disadvantages :

1. This system assists in lower utilisation of world resources and causes high domestic prices.
2. If the imported raw materials are of a poor quality, the quality of products produced in the importing country may be low.
3. If it leads to high cost of production and poor quality products, this system goes against the principle of comparative advantage.

5. Import Licensing. Import licensing is the system devised to administer the various types of quotas. According to this system, the amount of the commodity to be imported is first determined on the basis of the above mentioned quota systems. Then import licenses are issued by the appropriate authority to the importers for specified quantities of commodities to be imported.

Merits. This system has the following merits :

1. It reduces domestic shortage of products.
2. The quantities of commodities to be imported are fixed by the government.
3. As a corollary, there are very little price fluctuations.

4. Speculation in foreign exchange is removed.
5. Foreign exchange is allocated according to import requirements which leads to its saving.
6. It is a flexible system which can be changed as the need arises.

Demerits. The following are the demerits of this system:

1. It is a rigid system in which only those goods are imported which are issued licenses.
 2. Some governments auction import licenses and even allow licenses to be transferred. These practices tend to raise the prices of imported goods.
 3. It leads to monopoly in import trade because only established firms are issued licenses.
 4. It encourages political favouritism and bureaucratic corruptions.
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4. EFFECTS OF IMPORT QUOTAS

Kindleberger has analysed eight effects of import quotas, some under partial equilibrium and others under general equilibrium analysis. First, we explain the effects of import quotas under partial equilibrium analysis.

PARTIAL EQUILIBRIUM ANALYSIS

Price Effect. The aim of an import quota is to limit the physical quantity of a commodity. So when an import quota is fixed, it tends to raise the price of the commodity. How much the price will rise depends upon the supply and demand conditions of the commodity within the domestic market and the extent to which the supply of the imported commodity is restricted by the quota. The price effect of an import quota is illustrated in Fig 1 where D and S are the domestic

demand and supply curves respectively of a commodity. PB is the foreign supply curve under free trade which intersects the domestic demand curve D at point B and OP price is determined. Thus the total domestic demand for the commodity is OQ_3 . But the domestic supply is OQ . So QQ_3 quantity of the commodity is being imported under free trade at OP price.

Suppose the government fixes an imports quota equal to the amount Q_1Q_2 . Now the total supply curve of the commodity is $S + Q$ which consists of the domestic supply plus the quota amount. It intersects the domestic demand curve at N so that the quota raises the domestic price from OP to OP_1 . Thus PP_1 is the price effect of the quota.

Protective Effect. An import quota has a protective effect when it reduces the quantity of an importable commodity and protects the domestic producers of the commodity from foreign competition. In terms of Fig. 1 when Q_1Q_2 amount of import quota is fixed, the domestic production of the commodity increases from OQ to OQ_1 . Thus QQ_1 is the protective effect of the import quota.

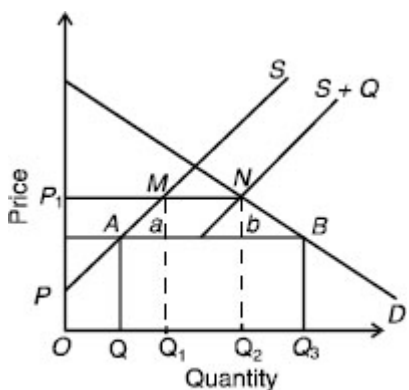


FIG. 1

Consumption Effect. When an import quota is fixed, it tends to raise the domestic price of the commodity. Consequently, the domestic consumption is reduced. This is illustrated in Fig. 1 where under free trade the total domestic consumption of the commodity is OQ_3 . With the fixation of the quota of Q_1Q_2 amount, the total domestic consumption falls to OQ_2 . Thus the reduction in the domestic consumption by Q_3Q_2 ($= OQ_3OQ_2$) is the consumption effect of the import quota.

Revenue Effect. The determination of the revenue effect of an import quota is quite complicated and difficult to determine. If the government auctions the import licenses at the price $PP_1 \times Q_1Q_2$

quantity allowed of the commodity, the revenue effect of the import quota will be equal to the area $aMNB$. This is equivalent to the import tariff. But governments do not auction import licenses these days. In that case, the revenue effect will be captured either by importers or exporter, or shared by both in the form of higher prices and profits and represents a rent for them. The revenue effect will be captured by domestic importers if they are organised and act as monopolists. On the other hand, if the foreign exporters are organised and the domestic importers are not, the revenue effect will be captured by the foreign exporters. If both domestic importers and foreign exporters are organised, there will be bilateral monopoly and the revenue effect will be shared by both. However, the actual result will be indeterminate, as under bilateral monopoly.

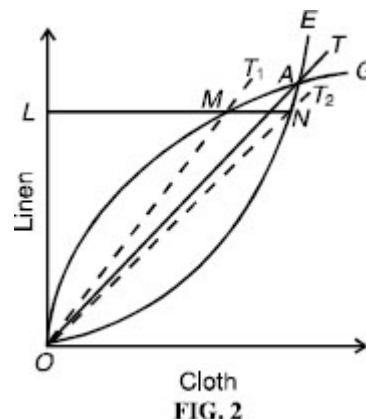
Redistributive Effect. The fixation of an import quota also leads to the redistribution effect. This happens when with the rise in the price of the commodity, the domestic producers earn higher profits and the consumers' surplus from the commodity decreases. In fact, the redistribution effect is the transfer of consumers' surplus to producers resulting from the rise in the price of commodity for which the import quota is fixed. It is shown in Fig. 1 as the quadrilateral PP_1MA .

Balance of Payments Effect. The balance of payments effect of an import quota is favourable to the quota imposing country. One of the objectives of fixing import quotas is to restrict imports so that they do not exceed the imports of the country. Thus import quotas tend to improve the balance of trade. Further, when imports are limited by the quota, the portion of the national income going to imports is also reduced. This is invested on domestic industries for import substitution and export promotion industries. This tends to increase the income from abroad and thereby improves the balance of payments position of the import quota imposing country. The balance of payments effect of an import quota is illustrated in Fig. 1 where under free trade QQ_3 commodity is imported at OP price. The total value of imports is represented by the rectangle AQQ_3B . This represents a balance of payments deficit because the amount paid

by the importers is the amount received by the other country. To correct this balance of payments deficit, an import quota of Q_1Q_2 is fixed so that the imports are reduced to this quantity. If the government auctions this quota to importers, it receives an amount equal to the area $aMNb$. Or, if the importers are organised, they get this much amount as profits which they utilise for further investment within the country. This is also a saving on foreign exchange. There is also improvement in the balance of payments because the quota imposing country pays the amount equal to the area aQ_1Q_2b for imports which is less than what it paid under free trade AQQ_3B .

TERMS OF TRADE EFFECT UNDER GENERAL EQUILIBRIUM ANALYSIS

The fixation of an import quota tends to change the terms of trade of the country. The new terms of trade may be more or less favourable to the country fixing the quota. It depends upon the elasticity of the offer curve or the monopoly power of the importing country or of the exporting country. If the importing country has a monopoly in importing the commodity (or its offer curve is elastic), the terms of trade will be favourable to it. On the other hand, if the exporting country possesses monopoly in commodity on which the import quota is imposed (or its offer curve is elastic), the terms of trade will move in its favour and against the quota imposing country. The terms of trade effect is illustrated in Fig. 2 where OE is the offer curve of England and OG of Germany. England trades cloth with Germany's linen, and the terms of trade under free trade are determined at point A . Suppose an import quota of OL quantity of linen is fixed by England. The terms of trade will change. The new terms of trade may be either on the ray OT_1 or OT_2 . If they are OM on the ray OT_1 , the terms of trade will be favourable to England because it will be exchanging LM cloth for OL linen of Germany. On the other hand, if the terms of trade are at ON on the ray OT_2 , they are unfavourable to England because it will have to exchange more



cloth *LN* for *OL* linen of Germany. “As in the case of bilateral monopoly—with a monopoly buyer and a monopoly seller—the outcome is theoretically indeterminate.”²

5. THE EQUIVALENCE OF TARIFFS AND QUOTAS

There is an equivalence between a tariff and a quota. Both produce similar effects in raising domestic price, protecting domestic production of the importable commodity, reducing domestic consumption and restricting the volume of imports.

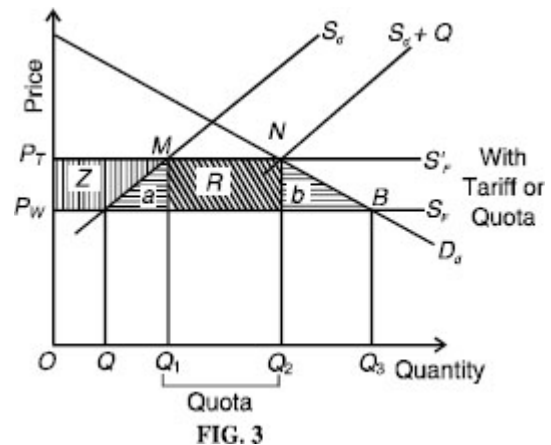
Assumptions. The analysis of equivalence between a tariff and a quota assumes that : (a) there is perfect competition in the domestic market; (b) there is competitive foreign supply; (c) domestic buyers as a group face a supply curve that equals the domestic supply curve plus the fixed quota; (d) the quota ensures perfect competition is that it is fully used; (e) the tariff and the import quota are equivalent in the sense that a tariff is just high enough to make the quantity of imports equal to the amount allowed by the quota.

Explanation. Given these assumptions, the similar effects of a tariff and an import quota are illustrated in Fig. 3 where D_d and S_d are the domestic demand and supply curves of an importable commodity. OP_w is the world price and $P_w S_F$ is the foreign supply curve under free trade which is perfectly elastic at OP_w price. Thus, under perfectly competitive conditions, free trade equilibrium is given by point B where the D_d curve intersects the supply curve $P_w S_F$ at the world price OP_w . The total demand for the commodity is OQ_3 and the domestic supply is OQ . The gap between domestic demand and supply is met by imports of QQ_3 quantity of the commodity at OP_w price.

Price Effect. When a tariff at the rate of $P_w P_T / OP_T$ is imposed on the imports of the commodity, it shifts the $P_w S_w$ curve upwards to $P_T S'_F$ and raises the price to OP_T . Similarly, the direct imposition of an

import quota equal to Q_1Q_2 quantity of the commodity shifts the domestic supply curve to the right as $S_d + Q$. It intersects the D_d curve at N so that the quota raises the domestic price to OP_T . Thus the price effect of a tariff and a quota is to raise the price of the commodity by an equivalent amount.

Protective Effect. The aim of both a tariff and an import quota is to reduce the quantity of the importable commodity and protect the domestic producers of the commodity from foreign competition. In terms of Fig. 3, before the imposition of a tariff, QQ_3 quantity of the commodity is imported. But with the imposition of P_wP_T/OP_T tariff, imports are reduced



from QQ_3 to Q_1Q_2 and domestic production expands from OQ and OQ_1 . Thus the increase in the domestic production of the commodity by QQ_1 amount is the protective or production effect of the tariff. Similarly, when Q_1Q_2 import quota is fixed, the domestic production of the commodity increases from OQ to OQ_1 thereby leading to a protective effect of QQ_1 equivalent to that under the tariff.

Consumption Effect. A tariff and an import quota produce an equivalent consumption effect. Both tend to raise the domestic price of the commodity and reduce its domestic consumption. In Fig. 3, the domestic consumption of the commodity under free trade is OQ_3 . With the imposition of P_wP_T/OP_T tariff and the rise in the price to OP_T , imports are reduced by Q_3Q_2 so that the total consumption of the commodity is also reduced from OQ_3 to OQ_2 . Thus Q_3Q_2 is the consumption effect of the tariff. Similarly, when the import quota of Q_1Q_2 is fixed, the total domestic consumption falls from OQ_3 to OQ_2 so that the consumption effect of Q_3Q_2 under the quota equals that under the tariff.

2. C.P. Kindleberger, *op. cit.*, p. 124.

Net National Loss. The net national loss from a tariff is equivalent to that of an import quota. With the increase in the domestic price of the commodity to OP_T due to a tariff, the net loss in consumers' surplus is $P_T NBP_W$ (the area under the demand curve).

Now the area $P_T NBP_W = \text{area } Z + a + R + b$. Out of this, area R is taken away by the government as revenue. The area Z is producers' gain from the tariff. The net national loss consists of areas a and b represented by the two triangles, the former representing deadweight loss in the import quota of Q_1Q_2 brings an equivalent loss in total consumers' surplus represented by the area $Z + a + R + b$. It brings the same gain to producers and net national loss as under the tariff. And the area R is internal redistribution from consumers to holders of import licenses. This is equivalent to the revenue effect under the tariff on the presumption that the government auctions import licenses.

This equivalence of a tariff and an import quota holds only under perfectly competitive conditions. Bhagwati³ has shown in his paper "On the Equivalence of Tariffs and Quotas" that there is *non-equivalence of tariff and quotas* if there is any monopoly power in domestic production or if there is no perfect competition among quota holders when import licenses are issued only to a few. The importer with a license can get the difference between the world price OP_W and the domestic price OP_T as amount of profit per unit. If licenses are auctioned, the importers would be prepared to pay upto $P_W P_T$ per unit of import permitted.

6. IMPORT QUOTAS VS. TARIFFS

An import quota, like a tariff, causes a reduction in imports, a rise in prices and an increase in domestic production of a commodity on which it is imposed. Both have common price, consumption,

redistributive, balance of payments and terms of trade effects. But there are important *differences* between an import quota and a tariff which are discussed as under :

1. Restrictive Effect. The restrictive effect of an import quota is speedier and tighter than that of a tariff. While a tariff primarily influences commodity prices, an import quota determines the amount of goods imported. Unlike an import quota, a tariff does not impose any limitation on the quantity of goods imported. But if an import quota is initially meant to influence the quantity of goods imported, it may lead to scarcity of goods and steeper price rise.

2. Quantity of Imports. As import quota fixes the maximum quantity that can be imported more rigidly than a tariff. A tariff, on the other hand, is milder because after the initial phase is over, imports tend to increase if the foreign price falls or the domestic demand or price of the protected commodity increases.

3. Stable Vs. Unstable. An import quota is unstable because it can be changed at the discretion of the bureaucracy while a tariff is stable because any change in the tariff policy requires legislative approval.

4. Discriminatory Vs. Non-Discriminatory. An import quota is more discriminatory than a tariff in restricting the supply of commodities from different countries. Thus it tends to embitter international relations. Since under a tariff, the market mechanism of demand and supply operates freely, there is less scope for discrimination with other countries. But under the quota system, the basis of allocation of import quotas is not based on any one accepted principle which often leads to international discrimination.

[3.](#) J. Bhagwati, *Trade, Tariffs and Growth*, 1969.

5. Revenue Vs. Profit. A tariff benefits the government in the form of additional revenue earned by levying a tariff duty while an import quota brings profits to importers to holding licenses. However, the

government may profit from the quota if it auctions import licenses to importers.

6. Quota or Economic Rent. Import restriction by way of a tariff or an import quota attaches a scarcity value to imports which gives rise to a margin, called economic or quota rent as a result of the difference between the domestic demand price and the foreign supply price. In the case of a tariff, the economic rent goes to the government as revenue. But in the case of an import quota, the economic rent may accrue to government, importers, foreign producers, domestic consumers or officials administering the quota system.

7. Monopoly. An import quota eliminates foreign competition and encourages domestic monopoly more than a tariff. An import quota is worse than a tariff when it creates monopoly. The allocation of import quotas to a few importers leads to monopoly power. They exploit the market and earn huge quota profits. With the monopoly-creating quota, the country gets even higher prices, lower output, and greater national losses than from a tariff that would have given it the same amount of imports.

8. Balance of Payments. Import quotas and tariffs are often used to improve a country's balance of payments. But import quotas cannot lead to an improvement in the balance of payments equal to the reduction in imports. Quotas make imports rigid both in the upward and downward directions by creating a large gap between the domestic and foreign price of imported goods. On the other hand, tariffs do not restrict the volume of imports and exports except under prohibitively high tariffs. Thus tariffs do not interfere in the flexibility of balance of payments mechanism.

9. Terms of Trade. The effect of a tariff on terms of trade is certain. But in the case of an import quota, the terms of trade effect is uncertain and indeterminate.

10. Retaliation. Both tariffs and quotas restrict imports and are likely to lead to retaliation by other countries. But the possibility of

retaliation is more in the case of a quota than a tariff. A high tariff rate seldom leads to retaliation by the other country which may reduce its export prices. But a tariff quota with high duty and low quota leads to retaliation by the other country.

11. Effective Protection. When quota is imposed on imported raw materials to be used for domestic product it raises its production costs. It has the same effect as that of a tariff. but rebate is often given on import duties in the case of raw materials when the final product is exported, whereas rebate is given in the case of a quota.

12. Simple Vs Cumbersome. An import quota requires a cumbersome administrative procedure. On the other hand, a tariff is simple to impose. The allocation of quotas and import licenses is a cumbersome process which leads to arbitrary government decisions, political interference and corruption.

13. Price Differentials. Tariffs and quotas also differ in price differentials between domestic price and world price. In the case of a tariff, the domestic price differs from the world price by the amount of the tariff duty. An importer can import any quantity of the product by paying the duty. But this is not so in the case of a quota where there is no limit to the difference

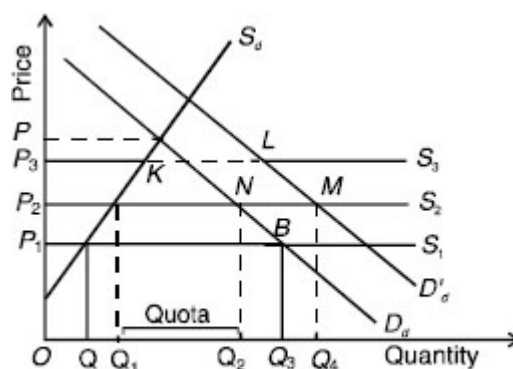


FIG. 4

between the domestic price and world price. This is illustrated in Fig. 4 where S_d is the domestic supply curve and D_d is the domestic demand curve for a commodity with no trade, the domestic price is OP . Under free trade, the world price is OP_1 and QQ_3 quantity of the commodity is imported. A tariff of P_2/P_1 raises the domestic price to OP_2 and imports are reduced to Q_1Q_2 . When an import quota of Q_1Q_2 is imposed, the domestic price also rises to OP_2 and the imports are again reduced to Q_1Q_2 . Thus there is equivalence of a tariff and quota in terms of price rise and volume of imports.

Suppose the D_d curve shifts upward to D' with the rise in domestic demand. With the imposition of P_1P_2/OP_2 tariff, the domestic price is OP_2 which equals the world price (OP_1) plus the tariff (P_1P_2) i.e., $[OP_2 = OP_1 + P_1P_2]$, and imports increase from Q_1Q_2 to Q_1Q_4 . Thus the increase in domestic demand is met by imports. But in the case of an import quota of Q_1Q_2 , the quantity of imports does not increase and is fixed at $KL (= Q_1Q_2)$ quantity but the domestic price rises from OP_2 to OP_3 . Thus with the increase in domestic demand, the effect of an import quota on domestic price is much higher than in the case of a tariff.

8. CONCLUSION WITH REFERENCE TO LDCS

From the above discussion, it becomes clear that tariffs are superior to import quotas. But so far as less developed countries (LDCs) are concerned, economists have divergent views on this issue.

The experience of many LDCs in their early phase of development suggests their preference for quotas (quantitative restrictions) than for tariffs. Tariffs are generally less protective than quotas because they cannot fully restrict imports from abroad despite heavy tariff duties. On the other hand, import quotas can restrict them on a large scale. Thus import quotas are a better instrument for infant industry protection than tariffs. Domestic producers feel more protected under quotas.

A tariff is a price instrument and not a quantity instrument. Import quotas restrict quantities of imported commodities which is more important for the growth of industries in an LDC. No doubt import quotas also tend to raise domestic price but they are controlled by rationing and price controls because LDCs are mixed economies.

Import quotas are more effective than tariffs for restricting the import of unnecessary and superfluous luxury goods. Quotas are not for such goods and high tariffs lead to smuggling. LDCs suffer from

disequilibrium in their balance of payments because they have to import essential raw materials, capital goods etc. for their development. There is always the need to restrict the importation of other types of goods in fixed quantities. This is only possible through import quotas.

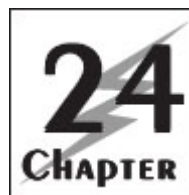
Governments in LDCs also prefer the quota system to tariffs because a quota has greater administrative flexibility than a tariff. It can be altered easily and quickly to meet the requirements of the economy. Imports can be reduced or increased definitely with a short notification. . Finally, the quota system helps to increase the bargaining power of LDCs in relation to the developed countries. A quota can be reduced or increased at will to get concessions from a developed country.

But the experience of many developing countries such as Nigeria, Mauritius, Chile, Phillipines, Sri Lanka, Korea and others has shown that the gradual removal of quotas and their replacement by tariffs increases the availability of raw material inputs, improves the supply of goods to meet the widespread shortages, expands the production of tradeable goods, raises employment and attracts external assistance. Dismantling quantitative restrictions on imports and the introduction of a moderate tariff structure has given a boost to exports and increased domestic production of a variety of consumer and capital goods. In some countries the capital-output ratio has declined and output-labour ratio has increased. The experience of developing countries which have crossed their initial phase of development is that the above gains from replacing import quotas by tariffs can accrue if the tariffs are as low as possible.

EXERCISES

1. Consider the view that quotas are much like tariffs in their protective and redistributive effects.
2. What are the direct effects of import duties? Illustrate your answer with the help of a diagram.

3. Distinguish between the effect of a tariff duty and an import quota on prices. Why is there a difference?
(Hint : Also explain Fig. 4.]
4. What is an import quota? How does it differ from a tariff?
5. In what respect tariffs and quotas are equivalent in their effects?
6. Explain the various effects of an import quota. Discuss similar effects of quotas and tariffs.



DUMPING

1. MEANING

Dumping is an international price discrimination in which an exporter firm sells a portion of its output in a foreign market at a very low price and the remaining output at a high price in the home market. Haberler defines dumping as: "The sale of goods abroad at a price which is lower than the selling price of the same goods at the same time and in the same circumstances at home, taking account of differences in transport costs." Viner's definition is simple. According to him, "Dumping is price discrimination between two markets in which the monopolist sells a portion of his produced product at a low price and the remaining part at a high price in the domestic market." Besides, Viner explains two other types of dumping. *One*, reverse dumping in which the foreign price is higher than the domestic price. This is done to turn out foreign competitors from the domestic market. When the product is sold at a price lower than the cost of production in the domestic market, it is called reverse dumping. *Two*, when there is no consumption of the commodity in the domestic market and it is sold in two different foreign market, out of which one market is charged a high price and the other market a low price. But in practice, dumping means selling of the product at a high price in the domestic market and a high price in the foreign market. We shall explain price determination under dumping in this sense.

2. TYPES OF DUMPING

Dumping can be classified in the following three ways:

1. Sporadic or Intermittent Dumping. It is adopted under exceptional or unforeseen circumstances when the domestic production of the commodity is more than the target or there are unsold stocks of the commodity even after sales. In such a situation, the producer sells the unsold stocks at a low price in the foreign market without reducing the domestic price. This is possible only if the foreign demand for his commodity is elastic and the producer is a monopolist in the domestic market. His aim may be to identify his commodity in a new market or to establish himself in a foreign market to drive out a competitor from a foreign market. In this type of dumping, the producer sells his commodity in a foreign country at a price which covers his variable costs and some current fixed costs in order to reduce his loss.

2. Persistent Dumping. When a monopolist continuously sells a portion of his commodity at a high price in the domestic market and the remaining output at a low price in the foreign market, it is called persistent dumping. This is possible only if the domestic demand for that commodity is less elastic and the foreign demand is highly elastic. When costs fall continuously along with increasing production, the producer does not lower the price of the product more in the domestic market because the home demand is less elastic. However, he keeps a low price in the foreign market because the demand is highly elastic there. Thus, he earns more profit by selling more quantity of the commodity in the foreign market. As a result, the domestic consumers also benefit from it because the price they are required to pay is less than in the absence of dumping.

3. Predatory Dumping. The predatory dumping is one in which a monopolist firm sells its commodity at a very low price or at a loss in the foreign market in order to drive out some competitors. But when the competition ends, it raises the price of the commodity in the

foreign market. Thus, the firm covers loss and if the demand in the foreign market is less elastic, its profit may be more.

3. OBJECTIVES OF DUMPING

The main objectives of dumping are as follows :

1. To Find a Place in the Foreign Market. A monopolist resorts to dumping in order to find a place or to continue himself in the foreign market. Due to perfect competition in the foreign market, he lowers the price of his commodity in comparison to the other competitors so that the demand for his commodity may increase. For this, he often sells his commodity by incurring loss in the foreign market.

2. To Sell Surplus Commodity. When there is excessive production of a monopolist's commodity and he is not able to sell in the domestic market, he wants to sell the surplus at a very low price in the foreign market. But it happens occasionally.

3. Expansion of Industry. A monopolist also resorts to dumping for the expansion of his industry. When he expands it, he receives both internal and external economies which lead to the application of the law of increasing returns. Consequently, the cost of production of his commodity is reduced and by selling more quantity of his commodity at a lower price in the foreign market, he earns larger profit.

4. New Trade Relations. The monopolist practises dumping in order to develop new trade relations abroad. For this, he sells his commodity at a low price in the new market, thereby establishing new market relations with those countries. As a result, the monopolist increases his production, lowers his costs and earns more profit.

4. PRICE DETERMINATION UNDER DUMPING

under dumping, the price is determined just like discriminating monopoly. The only difference between the two is that under discriminating monopoly both markets are domestic while under dumping one is a domestic market and the other is a foreign market. in dumping, a monopolist sells his commodity at a high price in the domestic market and at a low price in the foreign market.

Conditions. Price determination under dumping is based on the following conditions or assumptions :

1. The main aim of the monopolist is to maximise his profit. He, therefore, produces that output at which his marginal revenue equals marginal cost. since he sells his commodity in the domestic market and the foreign market separately, he adjusts the quantity such wise in each market that marginal revenues in both markets are equal. Given the marginal cost of producing the commodity, the most profitable monopoly output will be determined at a point where the combined marginal revenue of both the markets equals the marginal cost. In other words, dumping profit = $MR_H + MR_F = MC$.

2. The elasticities of demand must be different in the two markets. The demand should be *less elastic* in the domestic market and *perfectly elastic* in the foreign market. As a result, the monopolist sells his commodity at a low price in the foreign market and at a high price in the domestic market. Thus, the price and MR are related to each other by this equation : $MR = P (=AR) (1 - 1/E)$, where E refers to the elasticity of demand.

3. The foreign market should be perfectly competitive and the domestic market is monopolistic.

4. The buyers in the domestic market cannot buy the cheap commodity from the foreign market and bring it in the domestic market.

Explanation. Given these conditions, price and output under dumping will be determined by the equality to the total marginal revenue curve and the marginal cost curve of producing the

commodity. Figure 1 illustrates price-output determination under dumping. The foreign market demand curve faced by the monopolist is the horizontal line PD_F which is also the MR curve because the foreign market is assumed to be perfectly elastic. The demand curve in the home market with a less elastic demand for the product is the downward sloping curve D_H and its

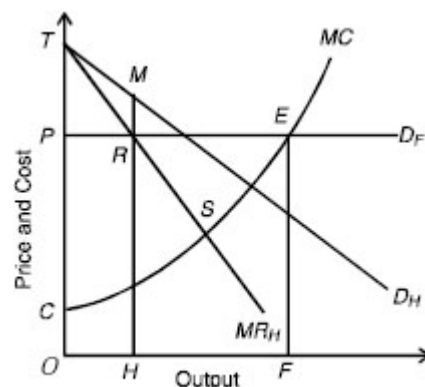


FIG. 1

corresponding marginal revenue curve is MR_H . The lateral summation of MR_H and PD_F curves leads to the formation of $TRED_F$ as the combined marginal revenue curve. in order to determine the quantity of the commodity produced by the monopolist, we take the marginal cost curve MC . E is the equilibrium point where the MC curve equals the combined marginal revenue curve $TRED_F$, that is, $MC = MR_H + MR_F = TRED_F$. Thus OF output will be produced for sale in the two markets. since FE is the marginal cost, equilibrium in the domestic market will be established at point R where the marginal cost FE equals the MR_H curve ($FE=HR$). Now OH quantity will be sold at HM price in the home market and the remaining quantity HF will be sold in the foreign market at OP ($=FE$) price. Thus the monopolist sells more in the foreign market with the more elastic demand at a low price and less in the home market with the less elastic demand at a high price. His total profits are $TREC$.

If due to competition in the open market (foreign), price falls below OP , less will be produced than before. F will move to the left. on the other hand, in the case of a rise in the open market price above OP , the monopolist will produce more in order to gain more. Rise in the foreign market price will be beneficial to the dumper so long as it does not affect adversely the demand for this product, because by expanding output he stands to gain more. in case the price of the exported commodity falls below S , the monopolist will stop selling abroad.

5. EFFECTS OF DUMPING

Dumping affects both importer and exporter countries in the following ways:

Effects on Importing Country. The effects of dumping on the country in which a monopolist dumps his commodity, depend on whether dumping is for a short period or a long period and what is the nature of the product and the aim of dumping.

1. If a producer dumps his commodity abroad for a short period, then the industry of the importing country is affected for a short while. Due to the low price of the dumped commodity, the industry of that country has to incur a loss for some time because less quantity of its commodity is sold.
2. Dumping is harmful for the importing country if it continues for a long period. This is because it takes time for changing production in the importing country and its domestic industry is not able to bear competition. But when cheap imports stop or dumping does not exist, it becomes difficult to change the production again.
3. If the dumped commodity is a consumer good, the demand of the people in the importing country will change for the cheap goods. When dumping stops, this demand will reverse, thereby changing the tastes of the people which will be harmful for the economy.
4. If the dumped commodities are cheap capital goods, they will lead to the setting up of a new industry. But when the imports of such commodities stop, this industry will also be shut down. Thus ultimately, the importing country will incur a loss.
5. If the monopolist dumps the commodity for removing his competitors from the foreign market, the importing country gets the benefit of cheap commodity in the beginning. But after the competition ends and he sells the same commodity at a high monopoly price, the importing country incurs a loss because now it has to pay a high price.

6. If a tariff duty is imposed to force the dumper to equalise prices of the domestic and imported commodity, it will not benefit the importing country.

7. But a lower fixed tariff duty benefits the importing country if the dumper delivers the commodity at a lower price.

Effects of Exporting Country. Dumping affects the exporting country in the following ways:

1. When domestic consumers have to buy the monopolistic commodity at a high price through dumping, there is loss in their consumers' surplus. But if a monopolist produces more commodity in order to dump it in another country, consumers benefit. This is because with more production of the commodity, the marginal cost falls. As a result, the price of the commodity will be less than the monopoly price without dumping. But this lower price than the monopoly price depends upon the law of production under which the industry is operating. If the industry is producing under the law of diminishing returns, the price will not fall because costs will increase and so will the price increase. The consumers will be losers and the producer will profit. There will be no change in price under fixed costs. It is only when costs fall under the law of increasing returns, that both the consumers and the monopolist will benefit from dumping.

2. The exporting country also benefits from dumping when the monopolist produces more commodity. Consequently, the demand for the required inputs such as raw materials, etc. for the production of that commodity increases, thereby expanding the means of employment in the country.

3. The exporting country earns foreign currency by selling its commodity in large quantity in the foreign market through dumping. As a result, its balance of trade improves.

6. ANTI-DUMPING MEASURES

The following measures are adopted to stop dumping:

1. Tariff Duty. To stop dumping, the importing country imposes tariff on the dumped commodity. consequently, the price of the importing commodity increases and the fear of dumping ends. But it is necessary that the rate of duty on imports should be equal to the difference between the domestic price of the commodity and the price of the dumped commodity. Generally, the tariff duty is imposed more than this difference to end dumping, but it is likely to have harmful effects on other imports.

2. Import Quota. Import Quota is another measure to stop dumping under which a commodity of a specific volume or value is allowed to be imported into the country. For this purpose, it includes the imposition of a duty along with fixing quota, and providing a limited amount of foreign exchange to the importers.

3. Import Embargo. Import embargo is an important retaliatory measure against dumping. According to this, the imports of certain or all types of goods from dumping country are banned.

4. Voluntary Export Restraint. To restrict dumping, developed countries enter into bilateral agreements with other countries from which they fear dumping of commodities. These agreements ban the export of specified commodities so that the exporting country may not dump its commodities in other country. such bilateral VER agreements exist between india and EEC countries in exporting indian textiles.

Conclusion. It is generally observed that anti-dumping measures explained above harm rather than benefit the country adopting these measures. The producers of the country never want that commodities should be imported from abroad. They, therefore, pressurise the government to restrict the import of better and cheap imports by calling them duped commodities. The reason for this is to misinterpret dumping. According to Article IV of GATT 1984, which now forms part of the World Trade Organisation (WTO), a country can adopt anti-dumping measures only if the dumped imports “injure”

the industry of the country. A commodity is regarded as dumped which is exported to the other country at a value lower than its normal value. or it will also be regarded as dumped if the export price of the commodity is less than its comparable price for final consumption in the exporting country. under these situations, the importing country can impose anti-dumping duty, provided the margin of dumping is more than 2% of the export price or is more than 7% of the dumped import.

EXERCISES

1. What do you mean by dumping? Explain the various types of dumping and the objectives of dumping.
2. What is dumping? How is price determined under it? Discuss the effects of dumping on the exporting and importing country.
3. What is dumping? Explain the determination of price under dumping? How can dumping be restricted? suggest measures.



EXCHANGE CONTROL

1. MEANING

Exchange control is one of the important devices to control international trade and payments. It aims at equilibrating foreign receipts and payments, not through such market forces or flexible exchange rates but through direct and indirect control of foreign exchange. Thus exchange control means that all foreign receipts and payments in the form of foreign currencies are controlled by the government. Prof. Haberler defines exchange control as “State regulation excluding the free play of economic forces from the foreign exchange market.”¹ Prof. Ellsworth has explained it more explicitly. According to him, “Exchange control deals with the balance of payments difficulties, disregards market forces and substitutes for them the arbitrary decisions of government officials. Imports and other international payments are no longer determined solely by international price comparisons, but also by consideration of national need.”²

2. FEATURES

The exchange control system has the following main features :

1. It involves complete government control over the foreign exchange market.

2. All foreign currencies are required to be surrendered to the central bank.
3. The central bank sanctions and allocates all foreign payments in respect of different currencies.
4. The central bank fixes the official exchange rate.
5. It regulates demand and supply so as to maintain the official exchange rate.
6. There is regulation of currency to be supplied to importers.
7. Exporters are required to surrender foreign currencies to the central bank.
8. Only specified banks and licensed dealers can deal in foreign exchange.
9. The central bank acts as a discriminating monopolist by charging low rates of exchange for the purchase of essential imports and high rates for purchasing luxury imports.

[1.](#) G. Haberler, *op. cit.*, p. 83.

[2.](#) P.T. Ellsworth and J.K. Leith, *op. cit.*, p. 375.

3. OBJECTIVES OF EXCHANGE CONTROL

There have been varied objectives of adopting the system of exchange control by governments before, during, and after World War II. We discuss these objectives as under :

1. Over-valuation. Some countries resort to exchange control to keep their currencies over-valued. Under this, the foreign exchange value of the currency is fixed at a higher level than allowed by market forces. The currency is over-valued for three reasons : *first*,

the country is at war and needs large quantities of imports; *second*, the country is engaged in the development process and needs raw materials and capital equipment from abroad; and *third*, the country has to repay large foreign debt. When the country overvalues its currency, its currency becomes dearer relative to other currencies. So it pays less to other countries in terms of its currency both for imported goods and for repayment of foreign debt.

2. Under-valuation. Some countries also exercise exchange control to keep their currency undervalued. This is done to stimulate exports and reduce imports and to raise the general price level of the country. But such a policy can succeed only in the case of a small country whose participation in world trade is insignificant. But if a large country were to adopt this policy, it will lead other countries to retaliate and follow this policy, which is highly dangerous for the world economy.

3. Stabilisation of Exchange Rates. Exchange control is adopted to stabilise the rate of exchange. Fluctuating exchange rates harm commerce and industry. The government, therefore, adopts exchange control measures to stabilise the exchange rates by announcing conversion at the official fixed rates of exchange.

4. Prevention of Capital Flight. Another objective of exchange control is to prevent the flight of capital from the country. Gold and capital funds cannot be exported without the permission of the exchange control authority. The latter may totally ban such movements or give foreign exchange in limited quantities to export capital for specific purpose. In this way, exchange control not only prevents the flight of capital but also conserves precious foreign exchange.

5. Protection of Domestic Industries. Exchange control is resorted to giving protection to domestic industries against foreign producers. The exchange control authority controls the import of such commodities which compete with domestic producers and thus protects them from foreign competition.

6. Checking Non-essential Imports. Exchange control also aims at checking imports of non-essential commodities. The exchange control authority restricts import of non-essential, luxury and harmful commodities through foreign exchange control. Licences are issued for import of essential commodities only so that foreign exchange is utilised fruitfully.

7. Help to the Planning Process. Exchange control helps the process of planning by controlling the non-essential and wasteful expenditure on imports and encouraging the flow of exports. The exchange control authority encourages the inflow of essential raw materials, capital goods and technical know-how by allocating scarce foreign exchange resources. Such imports are needed for the execution of plan projects.

8. Remedying Unfavourable Balance of Payments. Exchange control is introduced to remedy adverse balance of payments. This is achieved by checking and regulating imports and foreign exchange. With reduction in imports and control of foreign exchange, visible and invisible imports are reduced. consequently, adverse balance of payments are corrected.

9. Earning Revenue. Exchange control is also used to earn revenue by the government. The central bank of the country, which is usually the exchange control authority, sells foreign currencies to traders, businessmen and individuals at rates higher than at which it buys in the international market. The difference between the selling and buying rates goes to the government as revenue.

[3.](#) G. Crowther, *op. cit.*, pp. 244-70.

10. Repaying Foreign Debt. One of the objectives of exchange control is to earn and conserve foreign exchange for the purpose of repaying the principle and interest charges on foreign debt.

11. Retaliation. Exchange control is used to secure bargaining power in trade with other countries and also as a retaliatory device.

Exchange control gives monopoly power to a country which can get essential commodities at favourable rates from the other country. It can, thus, be used to exploit the other country. Under the circumstances, the other country can also adopt exchange control as a retaliatory measure.

4. METHODS OF EXCHANGE CONTROL

There are two methods of exchange control. One is direct and the other indirect. Crowther³ has further divided them into a number of sub-methods which are discussed below along with those given by other economists.

Direct Methods

The central bank of the country, which is the exchange control authority adopts a number of direct methods which restrict the use and quantity of foreign exchange. They are as under:

1. Intervention. Intervention means that “a government may intervene in the foreign exchange market to hold the value of its currency up or to hold it down.” This method is known as “pegging exchange rates”. If the government fixes the exchange rate of its currency at a higher level than prevailing in the foreign exchange market, it is called “pegging up”. On the other hand, fixing a lower exchange rate than prevailing in the foreign exchange market is called “pegging down”. Both 'pegging up' and 'pegging down' involve maintenance of fixed rates of local currency for a long period. Intervention in these two cases means selling or buying local currency in exchange for foreign currencies at fixed rates. When a country pegs up its currency, it means that the demand for its currency at the higher exchange rate is less than its supply. So the central bank must intervene to purchase local currency in exchange for foreign currencies at the fixed rate. On the other hand, in the case of pegging down of its currency, the central bank must sell the local currency in exchange for foreign currencies at the fixed rate.

This is because the demand for the local currency at the lower exchange rate is more than its supply.

2. Exchange Restriction. Crowther defines a policy of exchange restriction as one which involves “a compulsory *reduction* by the government of *supply* of its currency coming into the market.”⁴ under it, all foreign currencies are pooled with the central bank which, in turn, sanctions and allocates them in accordance with the rules laid down by the government. Exchange restrictions have many variants but we shall discuss only three.

(a) allocation according to Priorities. This is the simplest method. As the foreign currencies available with the central bank are always limited in quantities, it will allocate them to finance imports and to make other foreign payments. It will do so in accordance with certain principles or priorities. All essential items of imports such as food, raw materials, capital goods, intermediate products, etc. will be accorded priorities in allocating foreign exchange over non-essential and luxury imports. This system of exchange control had been in use in England and is widely practised by developing countries. But it has the following defects:

First, allocating foreign exchange according to priorities is bound to be arbitrary because that is decided by bureaucrats.

Second, the processing and sanctioning of applications involve much time and administrative costs. *Finally*, this system leads to inequities.

⁴. G. Crowther, *op. cit.*, p. 253.

(b) Multiple Exchange Rates. When a country establishes different exchange rates for each of several categories of imports, exports and capital transfers, it is known as the method of multiple exchange rates. This system of exchange control is operated in such a way that the foreign value of imports is reduced and the foreign value of exports is increased. The aim is to achieve balance of payments equilibrium for the country by reducing imports and increasing

exports. Despite this, different exchange rates are fixed for different types of imports. For instance, the central bank may fix a low buying rate for foreign currency for the import of essential commodities and a much higher rate for the import of luxuries. On the export side, it may subsidise exports by fixing higher exchange rates. But the rates for invisibles, including capital transfers, are usually very high.

It has certain *merits*: (1) It encourages exports and discourages imports. (2) It has the same effects as a subsidy on exports and a tax on imports. (3) It helps in checking disequilibrium in the balance of payments of the country adopting this method. (4) It encourages the inflow and discourages the outflow of capital. (5) This system is better than other methods of exchange control because it restricts trade indirectly. (6) The government earns additional revenue by buying foreign exchange from exporters and selling it to importers at a high price.

But it has its *defects*. (1) It is highly discriminatory. (2) It is a complex system which requires lot of understanding and knowledge on the part of the controlling authority for an accurate fixation of exchange rates. (3) It depends much on bureaucratic decisions which are likely to be arbitrary. (4) It hinders the growth of world trade.

(c) Blocked Accounts. Under this system of exchange control, payments for imports are credited to blocked accounts in the name of the foreign exporters. Such accounts may be kept in the central bank of the debtor country. The creditors are prohibited for some time from drawing on them. However, they can be used in the controlling country where such accounts are located. But this system is a great hindrance to international trade and leads to corruption and black-marketing in foreign exchange.

3. Exchange Clearing Agreements. Under this method of exchange control two trading countries agree to establish an account in their respective central banks through which all payments for exports and imports are cleared. This method is known as bilateral clearing or clearing agreement or exchange clearing.

Under this system, if country *A* imports goods from country *B*, payments by importers are required to be made in the clearing account with its central bank in its own currency. Similarly, exporters of country *A* are paid in their own currency out of the clearing account. The same principle applies to the other trading partners. But it is not essential that exports and imports may be equal in both the countries and the clearing accounts may balance. So to balance them, the banks supply their own currency at a fixed rate of exchange against that of the other country upto a certain limit. This is known as 'swing'. For instance, the swing or limit may be fixed at \$ 100. It means that exports of country *A* can exceed its imports or that of country *B* upto \$ 100. Beyond this limit, any surplus or deficit is settled in terms of gold or a convertible currency acceptable to both the countries.

But this system of exchange control is also not free from certain *defects*. *First*, such agreements are based on agreed exchange rates between the two countries. A strong country with relatively more bargaining strength may agree to a favourable exchange rate for itself. This exchange rate may be fixed arbitrarily and to the disadvantage of the weak partner. *Second*, the size of the 'swing' may have disastrous effects on the domestic economies of the two countries. If the size of the 'swing' is too small, its limit may be reached soon and trade between the two countries may come to an end because the country may not like to lose its gold. *Third*, if a country has excess of imports over exports, more local currency will be deposited by the importers in the clearing accounts. This will lead to a decline in the monetary supply which will be deflationary. On the contrary, the excess of exports over imports will be inflationary because more currency will flow to the exporters out of the clearing account. Both situations are possible, if the clearing account reaches the limit of the 'swing'. *Fourth*, it hinders multilateral trade. *Fifth*, the central banks are overburdened under this system.

4. Payments Agreements. Payments agreements are another form of bilateral agreements but they are wider in scope than clearing agreements. Besides trade transactions, they include various service

transactions such as shipping charges, debt services, tourism, etc. which are reflected in the balance of payments. A payments agreement is usually made for the repayment of the debt by one country to the other. Under this system of exchange control, a certain percentage of payments for imports by the creditor country is passed on to its clearing account for the repayment of its debt. The creditor country does not impose any restrictions on the imports from the debtor country. But the debtor country can restrict its imports from the creditor country so that it is in a position to repay its debt through larger exports.

Such agreements have some *defects* : (1) Such payment agreements always favour the strong partner. (2) The balances can only be used for buying goods and services from the debtor country. (3) They can only be used for payment between partners. (4) It adversely affects the balance of payments position of the debtor country. But the weak and developing countries gain from such an arrangement because their balance of payments position improves.

INDIRECT METHODS

There are certain indirect methods of exchange control which affect the exchange rates. They are

1. Quantitative Restrictions. Quantitative restrictions or commercial controls include import restrictions, import embargoes, import quotas and buying policies of state trading corporations. All these limit imports. Quantitative import controls restrict the amount (in value or quantity) of commodity to be imported. The aim is to curtail the value of imports to correct disequilibrium in the balance of payments. The import quota is another device by which a specified quantity of a commodity is imported free of any duty, while imports above that quantity are levied on import duty. The state trading corporation or authority is given a monopoly in the import of certain commodities. It regulates the amount of commodities to be imported and distributes them within the country. The aim of these quantitative restrictions is to make the rate of exchange in favour of the country imposing them and to correct its adverse balance of payments.

2. Export Bounties. Similarly, a bounty on exports has the effect of raising the external value of the country giving the bounty. But export bounties are limited by the amount of funds with the government.

3. Raising Interest Rates. Changes in interest rates within a country also influence its foreign exchange rate. When the interest rate increases in a country, it attracts capital funds from other countries and prevents the outflow of domestic funds to other countries. Consequently, the demand for its currency rises which raises its external value and making the foreign exchange rate favourable to it. These changes in interest rates are subject to certain limitations. The rate of interest cannot be raised beyond a certain limit, otherwise it will adversely affect domestic business. Foreign countries may raise their domestic interest rates and thus offset its favourable effects on the exchange rate.

5. MERITS AND DEMERITS OF EXCHANGE CONTROL

Merits. The system of exchange control in its various forms has been used in one country or the other. It possesses the following *merits* :

1. Exchange control prevents the erratic outflow of capital.
2. By restricting imports, it helps in improving the balance of payments.
3. It makes possible the import of essential capital goods by ensuring the availability of foreign exchange for them.
4. It prevents the import of non-essential consumption goods, thereby curbing conspicuous consumption.
5. Exchange control prevents the spread of foreign companies beyond a limit, and regulates their working in national interest.

6. It is an important device to protect domestic industries from foreign competition and start import substitution and export promotion industries.
7. It helps in maintaining exchange rate stability by removing fluctuations in exchange rates.
8. With the help of exchange control, government is able to pursue a anti-deflationary policy.
9. Government employs exchange control for controlling speculation in foreign exchange.
10. It enables the government to repay foreign loans.
11. It is a source of revenue for the government when it buys foreign exchange at a low price and sells at a higher price.
12. Control over foreign exchange helps in conserving foreign exchange for strategic, defence and planning needs of the country.
13. It is a good device to enable a country to have bilateral trade relations benefitting the two countries.
14. If a country becomes hostile, the country can prevent the repatriation of funds by freezing all its assets through exchange control.

Demerits. However, there are certain *demerits* of exchange control:

1. Exchange control tends to reduce the volume and value of international trade. When one country restricts imports from other countries, the latter retaliate, and exports from the former are also restricted. This leads to the diminution of world trade which is harmful for all countries.
2. The exchange control system breeds inefficiency, red-tapism and corruption among administrators and organisers connected with this.

3. It is a very expensive system because the exchange control authority needs large number of persons to carry on the system efficiently.
4. Exchange control always creates a black market in foreign exchange. There is smuggling of foreign exchange even in a very strict and efficient exchange control system.
5. The criteria laid down for the various types of exchange control are arbitrary. They depend upon the whims of the bureaucracy which may be in the interest of some and against others.
6. The system of exchange control creates vested interests in the country for their continuance.
7. As a corollary to the above, the system of exchange control leads to inequities. Some importers profit more because there are little restrictions on their imports while the imports of others are curtailed by an import duty.

Keeping the defects in view, some of UN agencies like the IMF and GATT aim at abolishing exchange control. But they are not likely to succeed in this objective because no country wants to do away with the exchange control system.

EXERCISES

1. Explain the mechanism and objectives of Exchange Control.
2. What is Exchange Control? Briefly discuss the various methods of exchange control.
3. What do you mean by Exchange Control? Discuss its merits and demerits.



INTERNATIONAL CARTELS

1. MEANING

An international cartel is a group of producers in the same industry located in different countries which agrees to limit competition and to regulate the production and sales in order to earn high profits. According to Kindleberger, “Cartels are international business agreements to regulate price, division of markets or other aspects of enterprises. . . . They are agreements to restrict selling competition.” There have been many international cartels in such goods and services as sugar, coffee, steel, bauxite, tobacco, diamond, oil, air and rail services, but it is only OPEC (Organisation of Oil Exporting Countries) which has been successful.

The reason for forming an international cartel are : *First*, cut-throat competition among producers of a world-traded commodity. *Second*, the fear of fall in world prices in the event of production of the commodity exceeding current demand. *Third*, to have monopoly control in order to earn higher profits.

2. OBJECTIVES OF INTERNATIONAL CARTELS

International cartels aim at : (a) to fix the world price of the commodity above the competitive price; (b) to earn high monopoly profits; (c) to restrict production and supply of the commodity as per

the quota allocation to each member; (d) to allocate a specific territory to each member for the supply of the commodity in order to avoid competition; (e) to decide about the quality of the commodity; (f) to control technological research and development of the commodity; and (g) to adopt other measures to limit or alleviate competitive pressure among members.

3. CONDITIONS FOR THE SUCCESS OF CARTELS

The following conditions are necessary for the success of a cartel :

1. The world market for the commodity has a few large suppliers.
 2. The commodity is produced on a large scale by members so that the cartel controls a major portion of the total supply.
 3. The price elasticity of world demand for the commodity is low.
 4. The Commodity does not have any close substitutes.
 5. The cartel members follow the cartel price and the output quota allotted to them.
-

4. PRICE, OUTPUT AND PROFIT DETERMINATION BY A CARTEL

An international cartel, such as the OPEC countries, operates like a monopoly firm. As such, its price, output and profits are determined as in the case of a monopoly firm.

ASSUMPTIONS

The analysis of the determination of price, output and profits of an international cartel is based on the following assumptions :

1. There are few large producers of the commodity (oil) who export it to the rest of world (ROW).
2. The commodity does not have any close substitutes.
3. There is no threat of entry of any other producer.
4. The world market demand curve for the commodity is given and known to the cartel.
5. The price elasticity of the world demand for the commodity is low.
6. The cartel marginal cost curve (MC_C) is the summation of the cost curves of the individual member countries.
7. The cartel members follow the cartel price policy.
8. The cartel aims at profit maximisation.

EXPLANATION

Given these assumptions, the determination of price, output and profit is shown in Fig. 1. where D_W is the demand curve of the ROW and MC_C is the marginal cost curve or supply curve of the cartel for oil exports. If there were perfect competition in the world oil market, equilibrium would be established at point E where the curves D_W and MC_C intersect. OP_W world price is determined at which OQ quantity of oil is exported to ROW.

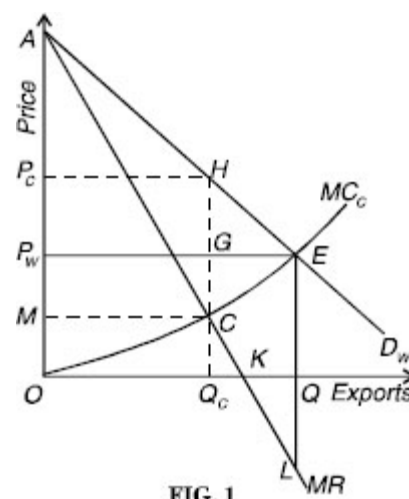


FIG. 1

The total export earnings of the oil producing countries are $OP_W \times OQ = OP_W EQ$. When a cartel of producers is formed they act like a monopoly firm. so the cartel equilibrium is determined at point C where the MC_C curve cuts the MR curve, given the D demand curve of ROW. Now OP is the cartel price and OQ_C is the cartel output which it exports to ROW. The total export earnings

of the cartel are $OP_c \times OQ_c = OPHQ_c$ and the total profit is $MPHC$. As a result of formation of the cartel, there has been fall in export earnings by $GEQQ_c$ from reduction in exports to OQ_c from OQ and rise in earnings by P_cHGP_w with the increase in export price from OP_w to OP_c . Whether the export earnings of the cartel have risen or fallen depends on the size of the area $GEQQ_c$ in relation to the area P_cHGP_w . The total gain to the cartel from reduction in output is measured by the difference between the marginal cost of producing OQ_c oil and marginal revenue obtained by selling this output. in other words, this is given by area under the MC_c and MR curves. This equals the area ELC which in turn equals :

$$ELC = EQKC + QLK.$$

In order to find out the net loss from export earnings, we deduct the area ELC from the area $GEQQ_c$. Thus

$$\text{Net Loss} = GEQQ_c - ELC \quad \dots(1)$$

$$\text{But } ELC = EQKC + QLK \quad \dots(2)$$

$$\therefore \text{Net Loss} = GEQQ_c - (EQKC + QLK) \quad \dots(3)$$

$$= GEQQ_c - EQKC - QLK$$

$$= (GEQQ_c - EQKC) - QLK$$

$$\text{But } GEQQ_c - EQKC = GEC + CKQ_c \quad \dots(4)$$

By substituting (4) in (3), we get

$$\text{Net Loss} = GEC + CKQ_c - QLK$$

It is clear from the figure that the net loss of export earnings represented by the area $GEC + CKQ_c - QLK$ is much smaller than the area P_cHGP_w representing increase in export earnings by output-reduction and price rise. Thus the cartel has increased its overall export earnings and earned the maximum profit equal to the area MP_cHC .

The cartel is optimal for its members but not for the world as a whole. The extra profits earned by the cartel amounting to MP_cHC by raising the price to OP_c above the competitive price OP_w and reducing the output to OQ_c from the competitive output OQ brings *net loss of the world welfare*. This is represented by the area HEC .

Further, total consumers' surplus in the competitive world market would have been the area AEP_w . This has been reduced to the area AHP_c under cartel price-output policy. Thus the total loss of consumers' surplus is the area $P_cHEP_w = AEP_w - AHP_c$. Out of this total loss of consumers' surplus, the area P_cHGP_w goes to the cartel and the remaining area HGE is a *deadweight loss* of the world. Thus on all counts, international cartels tend to reduce the world welfare.

CASE FOR AND AGAINST CARTELS

Economists differ as to the merits and demerits of international cartels on the following grounds:

MERITS

The following arguments are usually given in support of the formation of international cartels:

1. **Stable Prices.** International cartels encourage members to produce on a large scale and thus help in stabilising the prices of commodities.
2. **Eliminate Cut-Throat Competition.** The formation of a cartel eliminates cut-throat competition and price-war among producers of a commodity.
3. **Low Tariffs.** International cartel for a commodity can force an importing country to lower or remove tariffs on it. This will tend to maximise world welfare.
4. **Saving in Advertisement Expenditure.** With the formation of a cartel, there is little need for advertising its product in the world markets because the purchasing countries know about the suppliers. Thus there is saving in advertisement expenses.
5. **No Excess Capacity.** In a cartel, each producer of the commodity is allocated a fixed quota of the commodity to be produced in

keeping with the world demand for it. There is no excess capacity and waste of production under a cartel.

6. Providing Technical Knowhow. International cartels provide their members with the most upto date and cost-saving technical knowhow for the production of goods. This helps in reducing costs and improving the products.

7. Promote International Co-operation. International cartels are based on mutual agreements among producers of goods. Thus they are instruments of economic co-operation among nations.

DEMERITS

However, the majority of economists do not favour the formation of international cartels for the following reasons :

1. Restrict Output. International cartels deliberately restrict the output of cartelised goods so as to charge higher prices from the importing countries. This is due to the absence of competition.

2. Inferior commodity. In the absence of competition, the cartel often produces and supplies an inferior commodity.

3. Misallocation of Resources. In view of lack of competition, international cartels lead to underutilisation and malallocation of the world's resources when they restrict output and follow the system of production quotas.

4. Do not Reduce Tariffs. International cartels do not help in reducing or removing tariffs, as is generally argued. As pointed out by Haberler, “they are not a suitable instrument for demolishing tariff walls within any measurable time. Many of the present international cartels owe their own existence to tariffs. They are therefore scarcely adopted for destroying tariffs.”¹

5. Short-Lived. Cartels are usually short-lived because of the mutual distrust, threatening attitude of large producer-members and

bargaining resorted to by them. Thus cartels tend to be unstable.

CAUSES OF BREAK DOWN OF INTERNATIONAL CARTELS

Theoretically, international cartels break down for the following reasons :

1. The success of a cartel depends on the *inelasticity* of *world demand* for its exports. This, in turn, depends on : (a) the elasticity of the world demand for its commodity; (b) the elasticity of competing supply, if any; (c) the cartel's share of the world market for the commodity; and (d) the share of sales of small cartel-members in the total sales of cartel. Given these factors, the cartel will be successful if in the case of (a) the demand is inelastic; (b) competing supply is inelastic; (c) large share of the world market, and (d) small share of small members. But these factors are not likely to prevail due to the undermentioned difficulties.

2. It is difficult to make an accurate estimate of the *market demand curve*. Each producer thinks that its own demand curve is more elastic than the market demand curve, because its product is a perfect substitute for the product of its rivals. Thus, if the market demand curve is underestimated so will be its corresponding *MR* curve which will make the estimate of the market price inaccurate by the cartel.

3. similarly, the estimation of the *market MC curve* may be inaccurate because of the supply of wrong data about their *MCs* by individual producers to the cartel. There is very possibility that the individual producers may supply low-cost data to the cartel board in order to have a larger share of output and profits. This may ultimately lead to the break down of the cartel.

4. The formation of a cartel is a *slow process* which takes a long time for the agreement to arrive at by producers especially if their number is very large. In the meantime, there may be changes in the cost structure and market demand for the product. This renders the cartel agreement useless and it breaks down soon.

5. If a producer's product is preferred more by consumers than that of other members of the cartel, the market demand for it may be higher than the quota fixed by the cartel. It may, therefore, *secretly sell* more than its quota and if followed by other producers, the cartel will break down.

6. The *larger the number of producers* in a cartel, the less are its chances of survival for long, because of the distrust, threatening and bargaining resorted to by them. The cartel will, therefore, break down.

7. In theory, the cartel-members agree on joint profit maximisation, but in practice, they seldom agree on profit distribution. Large firms want a lower price, a higher output quota and larger profits. So when such *problems* arise in *joint profit distribution* in contravention of the cartel agreement, they lead to the break down of the cartel.

[1.](#) G.V. Haberler, *op. cit.*, p. 331.

8. The *price* of the product fixed by the cartel *cannot be changed* even if the market conditions require it to be changed. This is because it takes long time for the members to arrive at an agreed price. This stickiness of the price often leads to the break down of the cartel when some members defect from it.

9. Price stickiness gives rise to “**chislers**” who secretly cut the price or violate the quota agreement. such secret dealings by producers to raise their own profits tend to break down the cartel.

10. Unless all members in the cartel are strongly committed to co-operation, *outside disturbances*, such as a sharp fall in demand, may lead to the break down of the cartel.

11. When a cartel raises the price of the product and increases the profits of its members, it creates an incentive for new producers to enter the industry. Even if the entry of new producers is blockaded, it is only a short-run phenomenon because the success of the cartel

will lead to the entry of producers in the long run. This will force the cartel to break down.

12. some high-cost uneconomic producers may refuse to shut down or leave the cartel despite the cartel board's request. This is likely to distort the profit maximisation level of the cartel and thus break it.

13. The cartel's policy of fixing high price and restricting the quantity of the product may lead to the emergence of substitutes in the long run. The other producers may invent and produce cheaper substitutes which may be accepted by consumers. This will tend to reduce the demand for the cartel's product, make it more elastic, reduce its joint profits and thus break the cartel.

Thus the chances are greater for individual producers to leave the cartel on account of personal bickerings and antagonism of member producers over allotment of quotas and division of profits which are likely to affect adversely joint profit maximisation and end the cartel agreement.

EXERCISES

1. What is an international cartel? Why is it formed? Give its merits and demerits
2. What do you mean by an international cartel? How it maximises its profits? Does it increase or reduce world welfare? Explain with the help of a diagram.
3. Define international cartel. What are the conditions for the success of a cartel? Explain the factors that lead to the break up of an international cartel.



STATE TRADING

1. INTRODUCTION

State trading refers to a partial or complete control of the government in foreign trade. It consists of import and export of consumers and capital goods, raw materials, etc. by a state-controlled or state-owned agency. It is engaged in such import-export transactions for the use of private or/and state domestic consumers and producers. It also creates buffer stocks of essential raw materials and goods and distributes them to different agencies. Now-a-days, there is partial or complete state monopoly in the sale and purchase of defence equipment.

State trading is an old world-wide phenomenon. Before the First World War, many countries of Central Europe had state monopolies in trading such commodities as alcohol and tobacco. The erstwhile USSR had complete monopoly of state trading. After the Second World War, all communist countries like USSR, China and Central European countries practised state trading in full. Even now, the present Russia and other communist states of erstwhile Soviet Union, China, etc. are engaged in state trading though partially. Similarly, capitalist countries like USA, UK, Australia, Canada and many European countries are engaged in state trading in certain articles.

2. OBJECTIVES OF STATE TRADING

The main objectives¹ of state trading are as follows :

- (1) Improving the country's terms of trade.
- (2) To enhance the bargaining power of the country in the world market.
- (3) To control and regulate imports and exports.
- (4) To increase government revenues.
- (5) For optimum allocation of foreign exchange reserves and safeguarding the balance of payments position.
- (6) For price stability and ensuring a higher price to producers.
- (7) To protect domestic industries from foreign competition.
- (8) To eliminate unhealthy competition among domestic exporters.
- (9) To promote exports.
- (10) For disposing of surplus agricultural products acquired under domestic price-support schemes.
- (11) For favouring home consumers against foreign buyers.
- (12) To eliminate malpractices adopted by the private traders.
- (13) To reap advantages of bulk buying and selling.
- (14) To expand foreign trade with the socialist countries.
- (15) To import and export vital defence goods for strategic reasons.

¹. This portion also refers to the justification of state trading.

3. MERITS OF STATE TRADING

State trading has the following merits :

1. The state intervention in foreign trade causes a proper vision of international trade as well as safeguarding the national interest.
2. Without state trading international tariff agreements become meaningless.
3. State trading enhances strategical power of the country.
4. The terms of trade of a country can be improved by state trading.
5. It controls and regulates imports and exports. It is an effective and better import controlling measure than quota and licensing system.
6. State trading co-ordinates the whole mechanism of trading.
7. Under state trading the country can bargain with great freedom in the world market and thus it enhances the bargaining power of the country.
8. It increases the revenue for the state treasury.
9. State trading has the merits of optimum allocation of foreign exchange reserves and safeguarding the balance of payments position.
10. State trading is an effective instrument of price stabilisation.
11. It assures adequate supply of essential imports and eliminates speculative activities in foreign trade.
12. It protects domestic industries from foreign competition.
13. It eliminates unhealthy competition among domestic exporters.

14. It promotes exports.

15. It is under state trading that the government disposes of surplus agricultural products acquired under domestic price-supported schemes.

16. Domestic consumers may be favoured against foreign consumers under state trading.

17. State trading suppresses several malpractices indulged in by private traders such as tax evasion, unauthorised dealing in foreign exchange, speculation, black marketing, etc.

18. Advantages of bulk buying and selling may be achieved through state trading.

19. Under state trading the government may use more discretionary powers to determine the timing, volume and direction of imports and exports.

20. State trading becomes helpful in expanding foreign trade with socialist countries.

21. The defence deals are usually done by state agency in most of the countries today.

4. DEMERITS OF STATE TRADING

State trading has several demerits which are given below :

1. Under state trading political considerations become more important than economic considerations in determining foreign trade relations. The country may export to that country which pays a lower price or imports from the dearer source of supply due to political relations.

2. State trading introduces public monopoly in foreign trade. While monopoly in itself is harmful. But public monopoly is more dangerous than private monopoly, because it is easier for the state to ignore public criticisms.
 3. The government usually prefers to import from those countries which are ready to purchase its exports. Thus the state trading encourages bilateral trading and discourages multilateral trading.
 4. A country cannot improve its terms of trade under state trading if the other country has also state trading. This is because its bargaining power will be reduced.
 5. State trading restricts competition, induces idleness, inefficiency, corruption, red-tapism, etc. The talented private entrepreneurs are replaced by the inefficient bureaucrats.
 6. State trading creates unemployment by restraining private traders.
 7. State trading is uneconomical in relation to private business organisation.
 8. State trading ignores the principle of comparative cost advantage and of specialisation in foreign trade.
 9. State trading hampers the growth of foreign trade. A private trader may hesitate to negotiate and enter into agreement with a foreign government owing to bureaucratic complexities and red-tapism. More so, if the country happens to be a socialist or communist country.
-

5. STATE TRADING IN INDIA

The State Trading Corporation (STC) of India Ltd. was established in May, 1956 under the Indian Companies Act. This is a purely state-owned organisation. STC undertakes exports, imports and domestic trade in various items in competition, with private trade and industry.

It also imports various items of mass consumption in case of domestic shortages. The STC group consists of the STC, the Handicrafts and Handlooms Export Corporation (HHEC), the Central Cottage Industries Exports Corporation (CCIEC), the Cashew Corporation of India (CCI), Tea Trading Corporation of India (TTCI), the Project and Equipment Corporation of India (PEC), the State Chemicals and Pharmaceuticals Corporation (CPC), the Minerals and Metals Trading Corporation of India (MMTC), and the Mica Trading Corporation of India (MITCO).

The Corporation accomplishes its export related responsibilities under five segments which include consumer goods exports, leatherware exports, industrial products, development exports and producers exports.

OBJECTIVES

The objectives of the STC are : (a) the expansion of exports; (b) facilitating imports and exports of specific commodities; (c) increasing the revenue of the country; (d) encouraging economic equality; and (e) regulating and facilitating trade with communist countries.

FUNCTIONS

The STC performs the following functions :

1. To identify new markets for existing export items.
2. To develop and promote exports of new items.
3. To diversify exports.
4. To develop and promote exports of certain bulk commodities on a long-term basis and handling canalised imports of bulk commodities.
5. To facilitate overall trade.

6. To increase the resources for promoting organised production and export of small and medium scale industries.
7. To undertake price support for essential items.
8. To bring about buffer stock operations in certain commodities like jute, tobacco and rubber.
9. To undertake domestic trade if the situation demands.
10. To assure foreign importers regarding the quantity and quality of various goods at competitive rates.
11. To settle trade disputes between exporters and importers concerning India.
12. To implement all foreign trade agreements and barter deals.
13. To implement government trade policies.
14. To arrange import of certain capital goods, raw materials and scarce commodities such as soyabean oil, palm oil, chemicals, raw wool, newsprint, printing and textile machinery, etc.
15. To facilitate the import of goods subject to foreign aid programmes.
16. To keep in constant touch with the changing trends of foreign trade.
17. In addition, the STC has undertaken (a) trading mineral ores directly; (b) as distributing agent of the government in various goods; and (c) the development of non-canalised exports; etc.

CRITICAL EVALUATION

The State Trading Corporation of India has significantly contributed in diversification, rationalisation and supplementation of India's foreign trade. Several efforts have been made by the corporation to

consolidate and organise trade in mineral ores. It has developed new markets for shoes, handicrafts, woollen fabrics, etc. The Corporation imports large quantities of soyabean oil, chemicals, raw wool, silk yarn, printing and textile machinery and many other essential goods.

STC takes active part in national and international trade fairs for promoting India's exports. The corporation has enlarged its strength and established several offices abroad. It has made several efforts to increase the national resources of the country. It has also restricted sharp fluctuations in prices as well as built up significant business ties with Germany, Japan, U.S.A., Vietnam, etc. It has served the country in securing better terms of trade and handling imports and distribution of essential raw materials.

The turnover of STC was Rs. 2,050 crores in 1998-99, its networth was Rs. 499 crores and net profit Rs 12.5 crores as on 31 March 1999.

CRITICISMS

Despite these achievements, the STC has been criticised on the following counts :

1. The STC is not able to take quick decisions and actions.
2. The STC often delays in its deliveries.
3. It lacks in business expertise because its key officials are bureaucrats.
4. The STC often delays the execution of foreign orders.
5. The Corporation has failed to solve technical problems relating to buyers and producers.
6. It does not import often at competitive prices.
7. It charges heavy commission due to higher costs of canalisation. In such a case, the industry has to pay higher prices in relation to

direct imports.

8. It transfers its officials from time to time which affects its efficiency.

9. The red-tapism in the Corporation is at its peak.

10. Often, it fails to import commodities according to the needs of consumers.

CONCLUSION

Despite these weaknesses in its working, the STC has reshaped the country's foreign trade and facilitated in achieving planned economic growth with social justice. However, with the liberalisation of the economy, it has been losing its importance. Therefore, in the new context, the functioning and attitudes of the STC must be revised and reorganised. The STC should emphasize more on promoting the export of new items and import substitution policies. The STC should identify new market to enter where private traders do not want to go. It should also solve the problem of private traders. In addition, unnecessary government intervention in the functioning of the STC should be avoided.

EXERCISES

1. What is state trading? Explain its principal objectives.
2. On what basis do you justify state trading? Give its merits and demerits.
3. What are the functions of the State Trading Corporation of India? How far has it succeeded in fulfilling them?



INTERNATIONAL ECONOMIC INTEGRATION : CUSTOMS UNION

In this chapter, we study briefly international economic integration and its most important form the theory of customs union in detail.

1. INTERNATIONAL ECONOMIC INTEGRATION

MEANING

Tinbergen defines international economic integration as “the creation of most desirable structure of international economy, removing artificial hinderances to the optimum operation and introducing deliberately all desirable elements of coordination or unification.”¹ This is a vague, as well as an exhaustive definition. It is vague because it refers to ‘the creation of most desirable structure’ and does not specify the nature of structure for international economic integration. It is very exhaustive because it relates economic integration to the “international economy” and not to group of countries. Salvatore’s definition is simple. He defines it as the “commercial policy of discriminatively reducing or eliminating trade barriers only among the nations joining together.”² *International economic integration, therefore, refers to a decision or process whereby two or more countries combine into a larger economic region by removing discontinuities and discriminations existing along*

national frontiers, and by establishing certain elements of co-operation and co-ordinations between them.

Balassa regards economic integration both “as a process and as a state of affairs”. As a process, it includes measures which aim at abolishing discrimination between economic units belonging to different nations. As a state of affairs, it can be represented by the absence of various forms of discrimination between nations.³

Tinbergen distinguishes between negative and positive integration. Negative integration relates to those aspects of economic integration which involve the removal of discrimination and restrictions on the movement of goods among the member countries. On the other hand, positive integration involves the modification of existing institutions and policy instruments and the adoption of new ones in order to remove market distortions within the economic region. In fact, whether economic integration is negative or positive, it aims at free movement of goods and factor of production and removal of discrimination among nations in a regional group.

¹J. Tinbergen, *International Economic Integration*, 2/e, 1965.

²D. Salvatore, *International Economics*, 3/e, 1990.

³B. Belassa, *The Theory of Economic Integration*, 1969.

TYPES OF ECONOMIC INTEGRATION

There are five types of arrangements for economic integration among nations. They are :

1. Preferential Trading System. It was the earliest form of economic integration among 48 Commonwealth countries of the British empire established in 1932. It aimed at giving preferential treatment to the member nations by reducing tariffs on imports from each other but retaining higher tariffs on imports from outside the Commonwealth Preference System. This was a loose form of

economic integration which ended after the formation of GATT Rules.

2. Free Trade Area. The free trade area is a loose form of economic integration wherein the member countries remove tariffs and other trade barriers among themselves, but each member retains its own tariff, trade restrictions and commercial policies with non-member countries. But measures are taken to prevent imports from outside the area via the country with the lowest external tariff. In a free trade area, the member countries need not have common frontier with each other. The economic integration is simply based on intra-area trade. The European Free trade Association (EFTA) and the Latin American Free Trade Area (LAFTA) which was superseded in 1980 by the Latin American Integration Association (LAIA) are examples of free trade area of regional economic integration.

3. Customs Union. In a customs union, the participating countries adopt a common external tariff and commercial policy on imports from the outside world, and abolish all tariffs and trade barriers among themselves. Thus in a customs union, all members act as a unit in their trade relations with non-member countries. The European Community (EC) is a customs union. The free trade area and custom union are similar in that there is tariff-free movement of goods among the members. But they differ in that while a free trade area permits each member to retain its own tariff against non-members, the customs union adopts a common external tariff against them.

4. Common Market. The common market is a unified single market area among nations in which there is free movement of goods, services and factors of production. In a common market, product and factor market are integrated. In fact, the common market carries further the principle of customs union by allowing free movements of labour and capital alongwith goods among member countries. The EC is also a common market.

5. Economic Union. The Economic Union is the highest form of economic integration among nations. Besides the integration of

product and factor markets as in the common market, it involves harmonisation of monetary, fiscal and other policies such as exchange rate, transportation, industrial, social policies, etc. Thus there is significant degree of co-ordination among the members of an economic union in the adoption of a common external tariff and domestic economic policies. The EC aims at the ultimate formation of such an economic union.

BENEFITS OR MOTIVES OF ECONOMIC INTEGRATION

International economic integration benefits the members of a regional group in a number of ways :

- (1) It leads to a better allocation of resources among member nations when trades restrictions are removed.
- (2) It improves the quality and quantity of factor inputs as a result of technological changes and increased capital inflows.
- (3) It increases production due to specialisation based on comparative advantage.
- (4) It leads to better exploitation of economies of scale resulting in higher output.
- (5) It increases the volume of trade.
- (6) It improves the terms of trade of the regional group with the rest of the world by better bargaining position.
- (7) It increases economic efficiency within the group due to increased competition among members.
- (8) It increases factor mobility among member countries.
- (9) The members benefit from co-ordinated monetary and fiscal policies.

(10) The standards of living of the people increase with the availability of cheap and better products, larger employment opportunities and rise in incomes.

(11) Member nations are able to achieve the common targets of full employment, high rates of economic growth, reduction in income inequalities.

2. THE THEORY OF CUSTOMS UNION

INTRODUCTION

The theory of customs union was *first* developed systematically by Jacob Viner⁴ in 1950. Meade⁵, Lipsey⁶, Johnson⁷, Cooper and Massel⁸, Vanek⁹, Bhagwati¹⁰ and many others have contributed much in improving upon the Vinerian analysis of customs union. The theory of customs union has developed in terms of the partial equilibrium approach and the general equilibrium approach. The two approaches are studied below alongwith some recent amendments. Before we do that it is instructive to recaptulate the essential features of a customs union.

Lipsey defines the theory of customs union as that branch of tariff theory which is concerned with only the welfare effects of discriminatory tariffs and not with the effects of geographically discriminatory tariffs. Our analysis primarily follows this approach.

FEATURES OF CUSTOMS UNION THEORY.

The essential features of a custom union are that the member countries adopt a common external tariff on imports from the rest of the world and the abolition of all tariffs and trade barriers on imports among themselves. The establishment of a customs union changes the relative prices of goods in the domestic markets of member countries which, in turn, affect trade, production and consumption. The theory of customs union analyses these effects and their consequences on allocation of resources and on the welfare of the

members of a customs union and on the rest of the world. It studies these static effects in terms of the Vanerian trade creation and trade diversion. Besides, there are some dynamic effects of a customs union such as economies of scale, increased investment, increased competition and faster economic growth through technical changes. The static effects of a customs union are analysed under the partial and general equilibrium approaches.

[4.](#) Viner, *The Customs Union Issue*, 1950.

[5.](#) J.E. Meade, *The Theory of Customs Union*, 1955.

[6.](#) R.G. Lipsey, "The Theory of Customs Union : Trade Diversion and W.lfare," *Economica*, February, 1957; "The Theoryof Customs Union : A General Survey," *EJ*, September 1960; and *The Theory of Customs Union : A General EquilibriumAnalysis*, 1970.

[7.](#) H.G. Johnson, *Money, Trade and Economic Growth*, 1962, Ch. III.

[8.](#) C.A. Cooper and B.F. Massel, "A New Look at Customs' Union Theory," *EJ*, December 1965.

[9.](#) J. Vanek, *General Equilibrium of International Discrimination*, 1965.

[10.](#) J. Bhagwati, "Customs Union and W.lfare Improvement," *EJ*, September 1971.

THE PARTIAL EQUILIBRIUM APPROACH TO CUSTOMS UNION

The partial equilibrium approach to the theory of customs union was developed by Viner in terms of trade creation and trade diversion. Viner studied only their *production effects* and Lipsey and Meade emphasised their *consumption effects*. But it was Johnson who combined the two effects systematically in partial equilibrium analysis. Viner's trade creation and trade diversion effects relate to *inter-country substitution*.

ASSUMPTIONS

The partial equilibrium analysis of customs union theory is based on the following assumptions:

1. There are two countries, called the home country (H) and the partner country (P), which form the customs union.
2. There is another country called the rest of the world (W).
3. The customs union imposes a common external tariff.
4. There is no other type of trade restriction.
5. Only a specific tariff is levied by the customs union.
6. Only one commodity X is produced by all the three countries.
7. W is the lowest cost country of this good and H the highest cost country.
8. Prices are determined by cost.
9. This commodity is produced under constant costs.
10. The supply curves of H and W countries are perfectly elastic.
11. There is perfect competition in commodity and factor markets.
12. There is perfect factor mobility nationally but perfect factor immobility beyond national boundaries.
13. There are no transport costs.
14. Total resources of these countries are fixed.
15. There is full employment of resources.
16. Technology is given and constant.

17. There is balanced trade whereby exports equal imports in the home country.

EFFECTS OF CUSTOMS UNION

Given these assumptions, the theory of customs unions analyses the effects of customs union on production, consumption and trade in terms of trade creation and trade diversion.

When a customs union is formed between two countries H and P , the tariff on each other's imports are abolished but it continues on the rest of the world (W). The home country (H) now imports the commodity custom-free from the partner country (P). This leads to trade creation and trade diversion.

TRADE CREATION

Trade creation occurs when the consumption of higher-cost domestic production of the home country (H) is replaced with the lower-cost product of the partner country (P). This, in turn, leads to the *production effect* and the *consumption effect*. When the domestic production of good X reduced or eliminated and instead it is imported from the partner country, this is the production effect. The consumption effect refers to the increased consumption of the partner-country substitute good for the domestic good— X which was formerly available at a higher cost. The production effect and the consumption effect taken together constitute the trade creation effect of the customs union. Corresponding to the production effect and the consumption effect, trade creation leads to an economic gain of two types : *first*, the saving in the real cost of the good previously produced domestically at a higher cost and now imported cheaper from the partner country, and *second*, the gain in consumers' surplus from the substitution of lower-cost for higher-cost product. Thus *trade creation improves world welfare*.

The trade creation effects of a customs union is illustrated in Fig. 1 where D_H represents the demand curve for product X in the home country (H) and S_H its supply curve. The supply curve of the rest of

the world (W) is shown as horizontal line WS_w which means that it can supply any quantity of X at OW price. Similarly, the supply curve of the partner country is shown as horizontal line PS_p and it can supply any quantity of X at OP price. OH is the price of X in the home country. Thus the price of X in country H is the highest OH and the lowest OW in country W . whereas it is intermediate at OP level in the partner country P .

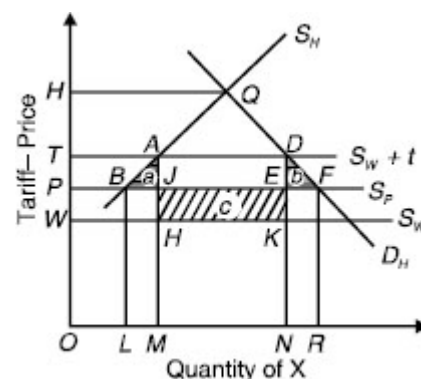


FIG. 1

Before the customs union is formed, WT tariff is being imposed on imports from country W by country H so that the rest of the world supply curve becomes $TS_w + t$. At the tariff-ridden price OT , country H consumes ON through OM produced domestically and MN quantity of X imported from country W . Country H gets a tariff revenue equal to the area of the rectangle $ADKH$. In this pre-customs union situation, country P is out of the market because its pre-tariff price OP is higher than the price OW of country W ; and imposition of W . tariff by country H on its product would raise the price to a higher level than OT (imagine a horizontal curve in between T and H).

Suppose countries H and P form a customs union and have no tariff between them, but the tariff W . is applied to imports from country W . Now country H will import good X duty free from country P only, and none from country W . This situation will lead to the following *trade creation effects of the customs union for country H* .

Price Effect. When country H imports good X from country P at a lower price OP as against the higher pre-customs union price OT , this is the price-effect of trade creation.

Production Effect. The domestic production of country H falls from OM to OL after the union. But it increases its imports from MN to LR . Viner's analysis refers only to this trade creation production effect.

Consumption Effect. As a result of fall in home price of good X in country H from OT to OP , its consumption increases from ON to OR . Thus NR is the consumption effect. Lipsey and Meade referred to this trade creation effect.

Revenue Effect. Before the formation of the union, the tariff revenue of country H was $ADEJ$. Now it disappears because it does not import any quantity from country W .

Welfare Gain Effect. From the production, consumption and revenue effects, Johnson measured the total welfare gain effect of trade creation by employing consumers' and producers' surpluses:

Gain in consumers' surplus as a result of the consumption effect measured below the

$$\text{demand curve } D_H = PTDF$$

Fall in producers' surplus due to decline in

$$\text{domestic production} = PTAB$$

Loss in government's tariff revenue transferred

$$\text{back to consumers} = ADEJ$$

$$\text{Total Welfare Gain Effect} = PTDF - PTAB - ADEJ$$

$$= DAJB + DDEF$$

or shaded triangles $(a + b)$.

The sum of the size of these two triangles which measures the trade creation welfare effects of the customs union, depends on three factors : (1) the amount of the initial tariff WT imposed by country H prior to the customs union. The higher WT is, the larger is the total welfare gain from the abolition of tariff in the post-customs union situation. (2) The elasticity of the supply curve S_H at the pre-union

production point A. (3) The elasticity of the demand curve D_H at the pre-union consumption point D. On the whole, the larger the initial tariff and the more elastic the demand and supply curves are, the larger the total *welfare gain* from trade creation is.

TRADE DIVERSION

Trade diversion occurs when with the abolition of tariff on the partner country (P), the Home country (H) imports the product from the higher-cost partner country instead of from the lower-cost rest of the world country (W). Thus trade diversion has two aspects : *first*, an increase in the cost of good X which was previously imported from the lower-cost country W to the higher-cost country P ; and *second*, a loss in consumers' surplus as a result of the substitution of a higher-cost good from P for the lower-cost world good from W . These two effects together constitute the trade diversion effect of a customs union. This reduces the efficiency of world production because to produce the same output a larger quantity of resources are needed. That is why *trade diversion decreases welfare for the world*, according to Viner.

The trade diversion effect is also illustrated in Fig. 1. In the pre-customs union situation, country H imports MN quantity of good X from the most efficient least cost country W at OW price. The relatively less efficient and higher-cost country P is excluded from the market. For MN quantity, consumers in country H pay $ADNM$. But the total cost to country W for exporting this quantity is $HKNM$. The difference between the areas $ADNM$ and $HKNM$ which equals the rectangle $ADNM$ and goes to the government as *tariff revenue* in country H .

Suppose countries H and P form a customs union which leads to trade diversion, besides trade creation. Trade diversion occurs when country H starts importing the same quantity MN at OP price from the partner country P and stops all imports from country W . After the formation of the customs union country H pays equal to the area $JENM$ for the same quantity MN to the partner country P . But before

the customs union, it was paying equal to the area $HKNM$ to country W . The difference between the areas $JENM$ and $HKNM$, which is equal to the rectangle $JEKH$, is the result of trade diversion. Thus the shaded rectangle c represents a welfare loss in country H .

NET WELFARE EFFECT

We have seen above that trade creation leads to a welfare gain and trade diversion to a welfare loss in country H as a result of the formation of customs union. The net welfare effect is the difference between the welfare gain and the welfare loss. This is measured on the diagram as the difference between the sum of the two triangles $(a + b)$ and the rectangle (c) .

1. If $(a + b) = c$, there is neither net gain nor net loss in country H 's welfare.
2. If $(a + b) > c$, its net welfare increases.
3. If $(a + b) < c$, there is a net loss in its welfare.

Thus in terms of the net welfare effect if the trade creation effect predominates, the customs union is made better off or if the trade diversion effect predominates it is made worse off. If the two effects happen to be equal, the gains and losses are equally distributed between the members of the union. Consequently, the net welfare effect of the customs union depends on which of these two effects is stronger.

Other things remaining the same, country H is more likely to gain if :
(i) the union price is nearer to the world price; (ii) the smaller is the volume of imports before the formation of the union; and (iii) the domestic supply and demand are more price responsive.

ITS LIMITATIONS

The partial equilibrium analysis of a customs union has certain limitations.

1. It is incomplete because it is based on a single commodity model. In fact, the formation of a customs union affects not one but many commodities.
2. It is based on the assumption of constant terms of trade so that trade remains balanced.
3. This analysis does not study the effect of a customs union on the rest of the world. In reality, the formation of a customs union not only changes the terms of trade between the partner country but also with the rest of the world.

These limitations of the partial equilibrium analysis of the customs union have led economists to formulate the general equilibrium approach to the theory of customs union which is analysed below in terms of the Vanek model.

THE GENERAL EQUILIBRIUM APPROACH TO CUSTOMS UNION

The general equilibrium theory of customs has been developed by many economists. But we shall discuss the two earliest models, the *first* by Lipsey⁹ and the *second* by Vanek.

THE LIPSEY MODEL : FIXED PROPORTION CONSUMPTION

Viner's partial equilibrium leads to the conclusion that trade diversion is welfare decreasing. Lipsey first demonstrates how trade diversion leads to a loss in welfare in general equilibrium terms.

ASSUMPTIONS

For this analysis he makes the following assumptions :

1. There are three countries : the home country (H), the partner country (P), and the rest of the world (W).
2. *H* is the smallest of the three countries with the highest cost structure.

3. *W* has the lowest cost structure.
4. There are two commodities *X* and *Y*.
5. *H* specialises in the production of only *Y*.
6. *P* specialises in the production of *X*.
7. *W* specialises in the production of *X*.
8. The two commodities are consumed in some fixed proportion independent of the structure of relative prices.
9. The supply of *X* and *Y* commodities is perfectly elastic.
10. Both commodities are produced under constant returns to scale.

THE MODEL

Given these assumptions, trade diversion will always lead to a loss in welfare. This is illustrated in Fig. 2 where *OH* indicates country *H*'s total production of commodity *Y*. It imports *OW* of *X* from country *W* in exchange for *OH*. The line *HW* shows the terms of trade at which countries *H* and *W* will exchange the two commodities *X* and *Y*. The fixed proportion in which *X* and *Y* are consumed in country *H* is

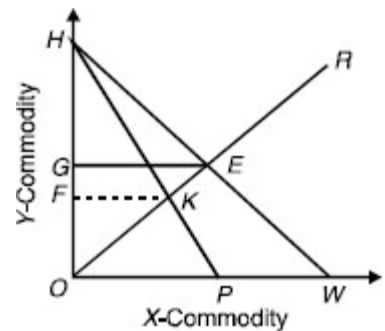


FIG. 2

shown by the slope of the ray *OR*, which is the income and price consumption line for all prices and incomes. In the pre-customs union situation, country *H*'s equilibrium will be at point *E* where *OR* and *HW* intersect. *H* will consume *OG* of *Y* and export *GH* of *Y* in exchange for *GE* of *X*. The equilibrium at *E* will be maintained so long as the trade between *H* and *W* continues at the terms of trade shown by *HW* irrespective of a tariff.

[9.](#) Lipsey's models relate to trade diversion

Suppose country H forms a trade-diverting customs union with country P . This means that H must buy her imports of X at a higher price than she was paying before the union was formed. The new terms of trade are shown by the line HP . H 's equilibrium is now at point K where OR and HP intersect. H will consume less of both commodities : she will consume OF of Y (less than OG) and export FH (more than GH) in exchange for FK of X (less than GE). Thus country H 's welfare has unambiguously diminished as a result of trade diversion.

After demonstrating how trade diversion leads to diminution in welfare in general equilibrium terms, Lipsey criticises Viner for assuming fixed proportion in the consumption of the two commodities independent of the structure of relative prices. As a matter of fact, a customs union necessarily leads to changes in the relative prices of the two traded commodities. Their pattern of consumption would also change. Consequently, imports from the union partner would increase and the consumption of the domestically consumed commodity would decline. Thus goods would not be consumed in fixed proportions, as assumed by Viner.

THE LIPSEY MODEL : INTER-COMMODITY SUBSTITUTION

After criticising Viner for neglecting the substitution effect in consumption, Lipsey shows that trade diversion may have two opposite welfare effects on country H : (1) after the customs union is formed, it will have to pay a higher price for importing X from country P as compared to country W ; and (2) there being no tariff duty on the import of X from country P , its domestic price will fall. This will increase its

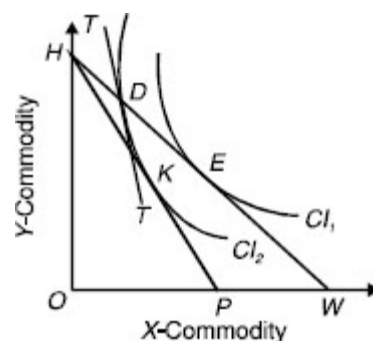


FIG. 3

consumption due to its substitution for Y . In order to show the importance of the substitution effect in consumption, Lipsey drops the Vinerian assumption that commodities are consumed in fixed proportions. In Fig. 3, OH is country H 's total production of commodity Y and OW of X in country W . The slope of the line HW

indicates the terms of trade between commodities X and Y when H is trading with country W . The free-trade equilibrium position is at point E where a community indifference curve CI_1 is tangent to the line HW . E is also the consumption point. Now in the pre-union situation if country H imposes a tariff on imports of X from country W , the relative prices change. They are indicated by the slope of the domestic price line TT . The new equilibrium point is D where a lower community indifference curve CI_2 is tangent to the price line TT . The effect of the tariff has been to reduce the consumption of the imported commodity X which is cheaper and substitute it by increased consumption of the domestic commodity Y . There is loss in welfare because point D lies on a lower community indifference curve CI_2 after the imposition of an import tariff. The terms of the trade HW have been assumed not to have been affected by the tariff as both points E and D lie on the HW line. Under the circumstances, it is beneficial for country H to form a trade-diverting customs union with another country P and thereby increase its welfare.

To show this, construct a line through H tangent to the community indifference curve CI_2 to meet the X -axis at point P . When country H forms a trade-diverting customs union with country P , it exchanges OH of Y for OP of X . The new terms of trade are represented by the line HP , which shows worsening of H 's terms of trade. But it need not lead to a decrease in consumers' welfare in country H . In fact, welfare remains unchanged because they are still on the same community indifference curve CI_2 . When the terms of trade are given by the line HP , it will be the price ratio in H 's home market. At this price ratio, X becomes cheaper than at the tariff-inclusive price ratio TT . Therefore, consumers in country H will substitute more of X for Y in consumption and move from point D to K on the same community indifference curve CI_2 . This demonstrates that if substitution in consumption takes place, it implies that a customs union can lead to an improvement in welfare even if it is of a trade-diverting nature.

ITS CRITICISMS

Lipsey's general equilibrium model has been criticised by Bhagwati and others on the following grounds :

1. Jagdish Bhagwati¹⁰ has challenged Lipsey's interpretation of Viner that a trade-diverting customs union reduces welfare when commodities are consumed in fixed proportions irrespective of relative prices. Bhagwati argues that fixed proportions in consumption are not a sufficient condition for the Vinerian proposition. According to him, a trade-diverting union reduces welfare not because of the constancy of the consumption pattern but because of the constancy of the level of imports. He points out that Viner implicitly assumes constant level of imports rather than fixed proportions in the consumption pattern. It is under the former assumption that a trade-diverting customs union is welfare reducing.

2. The controversy over the issue whether a trade-diverting customs union leads to a loss or gain in welfare is a sham one. The controversy arises from the meaning attached to trade diversion. On the one hand, it means diversion of trade from a lower-cost country (W) to a higher-cost partner country (P). On the other hand, it refers to the creation of new trade between the home country (H) and the partner country (P) resulting from *first*, the adjustment in country H 's consumption; and *second*, the replacement of the home country's (H) production by the partner's (P) production. The confusion arises when these two aspects are kept separate. On this basis, trade diversion leads to a loss in welfare and trade creation to a gain in welfare. The net welfare effect of a customs union depends upon which of these two effects is stronger, as shown by the difference between the sum of the two triangles ($a + b$) and the rectangle (c) in Fig. 1.*

OTHER STATIC FACTORS DETERMINING WELFARE GAINS OR LOSSES

Besides the above analysis, the welfare gains or losses from the formation of a customs union depend upon a number of other static factors discussed below.

(1) If countries forming the customs union are larger in number, the greater will be scope for trade created as opposed to trade diversion. Consequently, it will lead to an increase in welfare due to improved allocation of resources.

(2) The relative effects of customs union are also related to the height of the average tariff level before and after its formation. If the post-union tariff level is lower, the union is more likely to be trade creating because it would reduce the possibility of excluding the low-cost producer from the union. On the other hand, if the post-union tariff is higher, the union is more likely to be trade diverting because it would have to include a higher-cost producer within the union. In the pre-union situation, if the average tariff level is high, it would be trade creating because its removal after the formation of customs union would lead to the substitution of low-cost commodity of the partner for high cost domestic commodity. It will be trade diverting if the average tariff level is low.

[10.](#) J. Bhagwati, "Customs Union and Welfare Improvement," *EJ*, Vol. 81, September 1971.

[*](#) Students should explain this point in terms of Fig. 1

(3) There is trade creation and hence gain in welfare if the economies of the union countries are *competitive* in the sense that they produce similar commodities. This is because there is greater substitution of the commodity of one union member for those of its partner. On the other hand, if the union members produce dissimilar commodities which are *complementary*, there would be little possibility of substitution between high and low-cost producers. Consequently, the welfare gain would be smaller.

(4) In the case of the union of competitive economies, trade creation is more likely to predominate, the greater are the differences in unit costs of protected commodities. *first*, the consumers in the home country would gain in satisfaction from increased consumption of the partner's commodity at much lower prices. *second*, there would be large re-allocation of resources from high-cost domestic to low-cost

partner sources in production. On the whole, there will be large gain in welfare.

(5) Another important factor is cost of transport which act like a natural tariff barrier. Trade between union members involving high transport costs protects inefficient producers and thereby prevents a more efficient reallocation of resources. This may, in fact, lead to loss in welfare.

(6) Countries also gain from saving in administrative expenses with the elimination of trade barriers within the customs union. They spend less on the salaries of customs officials and other agencies dealing with the inspection of goods and their qualities, and on patrolling the borders to check smuggling, etc.

(7) If the customs union is trade diverting, it may improve the terms of trade of member countries. If the elasticity of demand for the union's imports is high, the prices of imports will be low even when a common tariff is imposed on them. With no change in export prices, the terms of trade of the union members will improve.

THE VANEK MODEL

The general equilibrium approach to the theory of customs union has been developed by Vanek¹¹ in terms of the offer curves :

ASSUMPTIONS

This analysis is based on the following assumptions :

1. There are two countries called the home country (H) and the partner country (P) which form the customs union.
2. There is a third country W which represents the rest of the world.
3. Each country produces, consumes and trades two commodities, X and Y .
4. Commodity X is the exportable commodity of H .

5. Commodity Y is the exportable commodity of P .
6. Country W exports commodity Y .
7. Neither commodity is inferior in any country at any relative prices or income level.
8. Both countries H and P trade with each other before the formation of the customs union.
9. No tariff or obstacle to trade exists.
10. There is free trade.

11. J. Vanek, *International Trade : Theory and Economic Policy*, 1962.

Given these assumptions, the pre-customs union trade situation between country H and P is shown by their offer curves OH and OP respectively in Fig. 4. After the formation of customs union between these countries, the trade relation between the union and country W has been shown by Vanek in terms of an excess offer curve, OU in the figure. This curve shows the various quantities of X which the customs union is willing to trade with the quantities of Y offered by country W under different terms of trade. The trade relations between the union and country W and how the excess offer curve is drawn are explained as under.

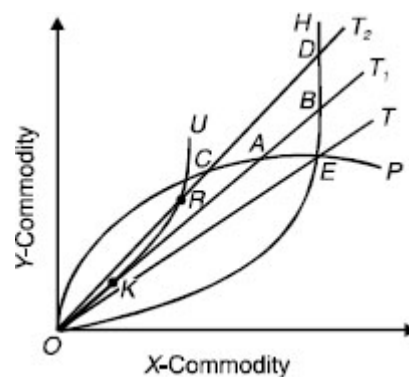


FIG. 4

first, take OT terms of trade where the trade between the two countries H and P is balanced at point E . In this situation, the customs union will not trade with country W . The trade between them is zero. Hence the starting point of the excess offer curve is O , the point of origin in Fig. 4 *second*, take another terms of trade line OT_1 where country P is willing to trade at point A on its offer curve OP and country H at point B on its offer curve OH . In this situation, there

is an excess offer of good X by country H as compared with country P in exchange for a larger quantity of Y . The distance AB on the terms of trade line OT_1 measures the excess offer of good X for good Y . Now measure $OK = AB$ along the OT_1 curve. This point K is the *second* point on the excess offer curve of the union, after the *first* point O explained earlier. Similarly, the distance CD on the terms of trade line OT_2 when measured from the origin gives the third point R on the union excess offer curve ($OR = CD$). By drawing more terms of trade lines, further points can be obtained on the excess offer curve. When all such points O, K, R , etc. are joined by a line from the origin, we get the excess offer curve OU . This curve shows the excess offer of good X for Y by the union member taken together ($H + P$) in their trade with country W .

The excess offer curve OU of the customs union is placed along with the offer curve OW of the rest of the world (country W), in Fig. 5 OT is the terms of trade line between the two on which E is their equilibrium trade point where the markets for both goods X and Y are cleared in the union ($H + P$ countries) and the rest of the world (country W) under conditions of free trade.

But under the customs union theory the trade relation between the union and the rest of the world are not on the basis of free trade. A common external tariff is imposed by the union against the third country W . So OU_1 is the excess offer curve of the customs union reflecting the common external tariff on the imports of Y from country W . The new trade equilibrium is established at point E_1 between the union

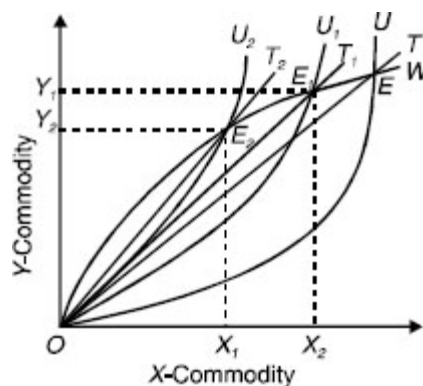


FIG. 5

offer curve OU_1 and the rest of the world curve OW . As a result of the shift in equilibrium position from E to E_1 , there is an improvement in the terms of trade of the customs union with country W . Or, there is a worsening of W 's terms of trade in relation to the union. If the union raises the common external tariff further, its excess offer curve

will shift to the left from OU_1 to OU_2 and the new equilibrium point with country W will be E_2 . The shifting of the equilibrium from E_1 to E_2 shows not only improvement in the terms of trade of union but also discrimination against country W leading to reduction in its trade with the latter. This is shown in Fig. 5 when exports of X from the union to W fall by X_1X_2 as against the fall in imports of Y by Y_1Y_2 from W . The extent of discrimination against W will depend upon the size of the common external tariff. The greater the common external tariff, the greater will be the discrimination against the rest of the world (W).

DYNAMIC EFFECTS OF CUSTOMS UNION

The trade creation and trade diversion effects of a customs union discussed above are static in nature which lead to gain and loss in welfare. Scitovsky¹², Balassa¹³ and Corden¹⁴ have given more importance to the dynamic effects of forming a customs union than to the static effects. Economists differ widely over the issue of dynamic effects. Still it is instructive to study them under dynamic advantages and disadvantages of a customs union.

DYNAMIC ADVANTAGES

The following are the dynamic advantages of a customs union :

1. Stimulus to Competition. One of the *first* dynamic benefits arising from the formation of a customs union is the stimulus to competition. As tariffs are removed among members with the formation of a customs union and the market for their products expands, competition increases among producers. Oligopolistic and monopolistic firms that have grown fat and lazy in sheltered markets in individual member countries become exposed to competition from rivals in other member countries of the union. Similarly, inefficient firms and those operating below the optimum size and exposed to the hot winds of competition are a power stimulus to managerial efficiency and technological improvements. Thus competition among firms in union countries will lead to their restructuring for survival with beneficial effects on costs and prices. Scitovsky has cited this

argument as very significant in the development of the European Economic Community.

2. Factor Movement. When a customs union takes the form of a common market, it leads to free movements of capital, labour and enterprise within the union. Movements of factors foster competitive spirit, spread knowledge and increase the productivity of factors, thereby leading to economic growth.

3. Economies of Scale. With the formation of a customs union the size of the market expands, competition increases and there is a greater degree of specialisation leading to reduction in costs. This may be due to internal as well as external economies of scale. Many firms in a number of industries fully utilise their plant capacity and reach their optimum size. They are able to do so by emulation and innovation and by supplying a larger union market. There are also external economies of scale when a whole industry expands as a result of an expansion of the market with the formation of a union. They arise from the development of a pool of skilled labour, capital resources, research and management in the union. Lipsey points out that if the whole union market expands it will lead to the growth in size of industries, thereby leading to the realisation of economies of scale.

4. Technical Change. Another important dynamic effect of a customs union is that increased competition and expansion of the market encourage emulation, innovation and technical change. In order to survive, hitherto protected firms try to emulate or innovate. Emulation of competitive firms in the union leads to research and development of new products and improvements in the existing products. Firms and industries which reap the economies of scale are able to spend more freely on research and development activities. This tends to promote faster technical change, and economic growth.

[12.](#) T. Scitovsky, *Economic Theory and Western Economic Integration*, 1958.

[13.](#) B. Balassa, *The Theory of Economic Integration*, 1961.

[14.](#) W.M. Corden, 'Economies of Scale and Customs Union Theory', *JPE*, March 1972.

5. Increase in Investment. The formation of a customs union leads to increased investment as a result of increased competition, technological changes, greater product specialisation, and market expansion. Some non-member countries also establish factories in custom union countries to avoid high tariffs. Such *tariff factories* further increase investment in the customs union. But it is difficult to estimate the net effect on investment because the formation of a customs union may lead to increased investment in some industries and disinvestment in others. The customs union may lead to disinvestment with the closure of some import-competing industries. But since most firms in a customs union are prepared to face keener rivalry, a substantial net increase in investment certainly takes place.

6. Improvement in Terms of Trade. When a customs union is formed, it raises tariff against the rest of the world. As a result, imports are reduced and the bargaining power of the union increases. This leads to improvement in the terms of trade of the union members in relation to the rest of the world. Further, favourable terms of trade also help in improving the balance of payments position of union members.

7. Sustained Economic Growth. Increased competition, economies of scale, technical changes, and increased factor mobility result in a once-for-all increase in total output, income and employment among the member countries of a customs union. This leads to higher rates of economic growth. Higher growth rates are sustained with continuing changes in business expectations, higher rates of investment, and spread of information, knowledge and new production techniques in the union countries. Thus both once-for-all changes and continuing changes emanating from the formation of a customs union lead to sustained economic growth in member countries.

8. Monetary Union. A dynamic advantage of a customs union is the formation of a monetary union with a single currency, a common pool of foreign exchange reserves, a single central bank and harmonisation of monetary policies among the member nations.

9. Fiscal Harmonisation. A customs union also leads to coordinated budgetary policies by member states in order to control inflation and unemployment.

DYNAMIC DISADVANTAGES

The following are the dynamic disadvantages of a customs union :

1. Diseconomies of Scale. If the customs union leads to the growth of very large companies they may become unwieldy and inefficient leading to diseconomies of scale.

2. Oligopolistic Collusion. With few big firms operating in member countries, it may lead to oligopolistic collusion among them. It may also encourage mergers and takeovers, thereby increasing monopoly power. Both these have the effect of keeping prices higher in the customs union.

3. Malallocation of Resources. Resources may flow from less developed to more developed member countries within the union because there is free movement of labour and capital in it. This leads to malallocation of resources thereby keeping the less developed states still worse.

4. Polarisation Effect. A customs union may lead to cumulative decline in the economic situation of a particular member country due either to the benefits of trade creation being concentrated in one region or an area may develop a tendency to attract labour and capital from other members of the union. This is called the polarisation effect of a customs union.

5. High Administrative Costs. The members of a customs union pay for its administrative expenses. These expenses are likely to

increase much if some members particularly press for their own benefits, knowing that the expenses will be met out of the common pool.

Conclusion. The above noted dynamic effects (advantages and disadvantages) of a customs union are difficult to assess as they depend on the size, attitudes and policies of the union and on world events.

3. ECONOMIC INTEGRATION AMONG DEVELOPING Countries¹⁵

NEED FOR ECONOMIC INTEGRATION

Economic integration among developing countries is needed to accelerate their economic development by (1) encouraging the establishment and growth of manufacturing industries; (2) expanding intra-regional and extra-regional trade; (3) increasing the gains from trade; and (4) providing benefits of the extension of competitive markets.

Developing countries chiefly export primary products which are traded freely in world markets. On the other hand, their imports consist mainly of intermediate goods and manufactures which the majority of them either do not produce or produce in limited quantities. Economic integration is essential to change the existing pattern of trade which requires changes in the existing pattern of production. The aim is to industrialise their economies on modern lines.

There is much less interest in trade creation through destroying inefficient producing units existing in the member countries. But there is more interest in trade diversion by shifting purchases from the rest of the world to member countries, and more constructively, the achievement of economies of scale.

The purpose is also to mobilise and utilise fully their unemployed resources through industrialisation.

Finally, there is the need to attract foreign investment and utilise it profitably for economic development of the customs union or free trade area.

BENEFITS FROM ECONOMIC INTEGRATION

There are many prospective gains from regional integration among developing countries. The following benefits accrue to developing countries when they form a *trading block*, or a *customs union* or a *free trade area* among themselves.

1. There is expansion of trade among member countries with the removal of trade barriers.
2. There is “trade creation” when goods which were being produced by high-cost partners are replaced by low-cost producers within the region.
3. This leads to the movement of resources from less efficient to more efficient production. This further tends to increase the gains from trade.
4. Since the developing countries have similar levels and patterns of consumption in particular regions, regional trade agreements among them provide greater opportunities to expand their markets and develop.
5. On the basis of inter-country agreements for the establishment of new and the expansion of existing manufacturing industries, the countries can benefit from the economies of scale. The choice of industries and countries can be done on the basis of their factor endowments and by having detailed feasibility and social cost-benefit studies. To have the desired changes in the pattern of production will require a variety of policy measures like tariffs on imported manufactures, fiscal incentives, administrative controls, etc.

6. In order to exploit economies of scale and utilise excess capacities in existing plants or process, developing countries can have complementary agreements for their development. This will meet the internal demand for goods manufactured in such plants within the free trade union.

15. This section also relates to *South-South Economic Cooperation*. If we were to see a globe, we will find that all the developing countries, with the exception of Australia and Newzealand, are located in the Southern hemisphere, while all developed countries, except Australia and Newzealand, are in the Nort

7. Regional integration among developing countries encourages competition among them. Every member country tries to innovate and adopt new methods of production in its specified industries. It increases its technical and productive efficiency by increasing investment in new machines and equipments. Resources are reallocated from less efficient to more efficient industries. As a result, costs of production are reduced and output, employment and income increase with the expansion of trade within the trading block.

8. Integration among developing countries also attracts direct foreign investment in new regionally-based manufacturing industries that enjoy economies of scale. This requires inter-governmental agreement for the establishment of chosen industries or plants, as also policy measures like tariff against foreign competition, fiscal and administrative measures for their implementation and success.

9. In the long-run, the new manufacturing industries will meet the local demand in member countries. With the extension of the market and increase in economies of scale, these industries will be able to compete in world markets and thus export manufactured goods.

10. Regional integration may also lead to improvement in the commodity terms of trade of member countries. This is achieved only if the demand for imports by members is reduced by producing imports substitutes, imposing tariffs on imported goods and increasing exports to the outside countries. However, these

conditions can be met in the long-run when the developing countries have reached the take-off stage.

PROBLEMS OF ECONOMIC INTEGRATION

There are many problems or difficulties in the formation of a customs union or free trade area by developing countries. They are enumerated as under :

1. Political. In any regional integration, there are always small and large and less developing and more developing countries. The smaller, weaker and less developing countries fear that their freedom and sovereignty might be in danger if they form a customs union with their bigger and more powerful neighbour. This is particularly so in Asia and Africa where there are national rivalries and boundary disputes.

2. Administrative. There are certain administrative requirements of a customs union which may be beyond the capacity of poor and weak members. They may not have efficient and sufficient administrative staff to implement the policies of the union.

3. Uneven Distribution of Benefits. There are disparities among developing countries which create problems in equitable distribution of benefits. The lagging or weak countries fear that the economically better partner countries will retard rather than assist in their economic development. They are, therefore, reluctant to form a union with the latter countries.

4. Geographical Distances. The developing countries often lack in geographical proximity to each other. Nearness to each other is essential for forming an economic union to be successful. Even if there is geographical promity among them, they lack in good transport, communications, infrastructural and other facilities for intra-regional trade.

5. Trade Diversion. The volume of foreign trade in developing countries is generally high relative to their domestic production. But

the volume of intra-regional trade is very small in the region's total foreign trade. These two diverse trade patterns will lead to trade diversion among developing countries when they form a union. This is because it will lead to diversion of old trade from foreign countries to each other. Thus it is no use forming a union because trade diversion is always harmful.

6. Economically Diverse. The majority of developing countries produce and export primary products. The formation of an economic union will not serve any purpose because they will be competing for the same world markets for their primary products. According to Kindleberger, they are not economically unified. They are typically more competitive than complementary, and their competitive interests make it hard for them to form *an economic union*."

7. Loss of Revenue. The fear of loss of revenue with the formation of a regional union is also an obstacle in the economic integration of developing countries. This is because with economic union, intra-regional tariffs will be eliminated. Moreover, with the formation of a union and adoption of a common external tariff, the weak members will not be in a position to raise tariffs by themselves in order to meet their revenue requirements.

Conclusion : These difficulties or problems explain the failure or slow progress towards economic integration in developing countries. For example, the Central American Common Market (CACM), after some initial success, dissolved in 1969. The East Africa Common Market (EACM) was also dissolved.^{[16](#)}

MEASURES TO ENCOURAGE ECONOMIC INTEGRATION AMONG DEVELOPING COUNTRIES

The following measures are suggested for the formation and success of an economic union (or a free trade area or a regional block) among developing countries.

It may be noted that all measures should aim at removing fears of the dominant members creating confidence among the laggard

members of the region, besides strengthening economic relations.

1. Trade Liberalisation. The first step should be towards partial liberalisation of regional trade. It might be in specific products. Trade barriers on products in which members of the region possess comparative advantage should be removed gradually. The bigger states should give preferences in importing goods from the weak states without trade restrictions. On the other hand, small states should be allowed to levy low tariffs on imported goods from the big member states so that they may not lose revenue.

2. Trade Infrastructure. For the development of intra-regional trade, the establishment of effective infrastructure facilities such as transport and communications within the region is required. Countries having common borders can have inter-connected road and rail transport facilities.

3. Foreign Investment and Technology. There should be a regional agreement for the entry of foreign investment and technology in countries of the region. Such an agreement can bargain with foreign suppliers to the common benefit of all the countries. It can also decide about the establishment of joint ventures and technology transfer among the regional states. In this regard, it is necessary that the interests of laggard states are protected.

4. Counter-Trade. To promote intra-regional trade and cooperation among small and big states, counter-trade *i.e.* exchanging goods and services rather than purchasing them should be started.

5. Regional Institutions. To promote intra-regional trade such regional institutions as joint business councils, trade promotion organisation, regional trade information centre, regional export processing zones, etc. can be helpful.

6. Balance of Payments Support. Economically weak countries are prone to balance of payments problems in intra-regional trade. To help such countries BOP support should be provided to them by

establishing a regional payments union funded by all members in which big countries should contribute more.

7. Credit Facilities. To provide credit facilities to exporters, to give adequate line of credit to importers, and to coordinate the activities of existing trade financial institutions and commercial banks, a regional central bank should be established. This will help to increase intra-regional trade.

[16.](#) D. Salvatore, *Theory and Problems of Integrational Economies*, 3/e, 1990.

8. Fiscal Incentives. When a custom union is formed, small countries suffer the most from the loss of tariff revenue which forms a large part of their total revenues. For this, the union should compensate such member countries for their net loss of revenue through inter-governmental budgetary transfers from big partners. This can be done by the adoption of an agreement among member countries to harmonise fiscal incentives.

Fiscal incentives may also be to the location of new enterprises in weak member states with the support of inter-country fiscal transfers. Another measure is to set up a regional development bank to provide loan finance on a preferential basis for investment in infrastructure and industries in such countries.

CONCLUSION

A few empirical studies of economic unions in Africa and Central and South America suggest that the benefits of economic integration among developing countries can be substantial. But they require effective coordination which the developing countries lack due to political and ideological differences among them and the fear of hegemony of large and strong states in regions. Despite these, even though a customs union may be the ultimate objective, it will still be a sizeable accomplishment in the immediate future to secure the mutually supporting measures of regional investment policies,

regional trade liberalisation and regional aid institutions in developing countries”.

EXERCISES

1. What is a customs union? Discuss the effects of a customs union under partial equilibrium analysis?
2. What do you mean by a customs union? Analyse its effects in terms of the general equilibrium approach.
3. Explain the static and dynamic effects of a customs union. Are they purely hypothetical?
4. Explain the theory of customs union. Comment on its relevance to developing countries. [**Hint** : Give the *Need for*.]
5. Does the formation of a customs union lead to a welfare gain or loss for the members of the union and the rest of the world? Discuss.
6. Write notes on : (a) Trade creation and trade diversion; (b) Dynamic Effects of a Customs Union; (c) International Economic Integration.
7. Explain the benefits which developing countries can derive from economic integration. What are the difficulties which they have to face in forming a customs union?
8. Discuss the problems which developing countries face in forming a customs union. Suggest measures whereby they can have economic integration.



ASEAN AND NAFTA

1. ASSOCIATION OF SOUTH EAST ASIAN NATIONS (ASEAN)

The ASEAN was formed with the signing of the Bangkok Declaration on 8 August 1967 by six countries : Brunei, Indonesia, Malaysia, Philippines, Singapore and Thailand. Now it has ten members with the inclusion of Cambodia, Lao PD Republic, Myanmar and Vietnam in subsequent years.

The principal objectives of ASEAN are to achieve economic, political, social and cultural cooperation among its members. It has been the most successful regional association for economic integration and peaceful coexistence in South-East Asia. Foreign trade is the life-blood of the ASEAN countries following globalisation and prudent macroeconomic policies. The ASEAN economies have achieved sustained high growth rates leading to economic prosperity.

The ASEAN Summit of Heads of Governments of member countries is the highest forum for ASEAN cooperation. Its meetings are held once every three years. The last summit was held in November 2007 in Singapore. The ASEAN Ministerial meeting of Foreign Ministers is the next highest decision-making body. The agenda for decisions to be taken at the above two meetings is first discussed and arrived at the meeting of the ASEAN Economic Ministers under the

Chairmanship of the ASEAN Secretary-General at the ASEAN headquarters in Manila.

Besides the ten members of the ASEAN, there are six “dialogue partners” which have been participating in its deliberations. They are China, Japan, India, South Korea, New Zealand and Australia.

During the fourth ASEAN Summit in 1992 in Singapore, ASEAN Free Trade Area (FTA) was launched. It will come into full force in 2015. The ASEAN nations are expected to benefit from the FTA as it will reduce tariff and non-tariff barriers. The member countries plan to streamline the custom procedures between them. Some of the benefits that will accrue to member countries when FTA comes into force are :

1. There will be free movement of goods, services and investments within ASEAN by creating a single regional market like the European Union.
2. It will also provide free access to the marketers of one member country to the markets of all other member countries, thus fostering growth in the region.
3. FTA will improve business competitiveness between businesses from different countries and also narrow developmental gaps, between member countries.

In this regard, the ASEAN Secretary-General pointed out in August 2007 that all the free trade agreements among ASEAN members and the rest of their trading partners would be completed and the FTA would be in place by 2013, ahead of forming the ASEAN economic community in 2015. He further said that the ASEAN had already started exchanging views with the European Union on an FTA accord, but had not set any time schedule.

There has been a significant increase in the value of goods after FTA was launched in 1992 and in ASEAN's share of global trade.

INDIA AND ASEAN

India's relationship with ASEAN started in 1992 when India became a "sectoral dialogue partner" of ASEAN. The alliance with ASEAN, which has developed gradually, will certainly boost India's foreign trade with the signing of FTA by 2008.

In 2003, the two-way bilateral trade between India and ASEAN was valued at about \$13.3 billion which increased to \$30 billion in 2007.

Some of the reasons why FTA with ASEAN will boost India's trade are :

1. It will offer more access to the ASEAN market for India.
2. The geographic proximity of ASEAN countries to India facilitates faster exports and lower freight costs.
3. The total population of the ASEAN region is around 500 million, and this offers a substantial market for Indian businesses.
4. The middle class population is on the rise in the ASEAN region. Thus the potential market base will also increase.
5. India's exports to ASEAN were only 10% of its total exports in 2007. But there is a good market for leading Indian export items such as oil-meal, gems and jewellery, meat and meat products, cotton yarn, fabrics, engineering goods, marine products, and fruits and vegetables, as such exports form but a small part of the total ASEAN imports. But Indian exports to ASEAN will depend on how well exporters are able to meet the challenges of price, quality and delivery schedules, not counting the development of new markets in sectors such as information technology.

India's imports from ASEAN were 9.5% in 2007. As far as Indian imports from ASEAN are concerned, they include artificial resins, plastic materials, natural rubber, electronic goods, organic chemicals, and edible oils. They have increased, but at a slower

pace. That is why the ASEAN countries are putting pressure on India to reduce import tariffs on highly sensitive items such as palm oil, tea, pepper and coffee if the projected Free Trade Agreement is to get off the ground. However, there is probably little scope for the agreement to get through given the unreasonably hard stance adopted by Malaysia, Vietnam and Indonesia in sectors where they have a sizable presence.

2. NORTH AMERICAN FREE TRADE AGREEMENT (NAFTA)

NAFTA is the extension of Canada–US Trade Agreement (CUSTA) of 1988 for eliminating all tariff barriers. Later in 1991, Mexico joined them to form the NAFTA. It came into effect in January 1994.

The principal objective of NAFTA was to promote trade among United States, Mexico and Canada by lifting trade barriers on various products like automobiles, and their parts, computers, textiles and farm products among member countries. They agreed to eliminate tariffs on 99% of goods and services traded within their borders by 2004. The agreement also required the removal restriction on FDIs (foreign direct investments) among member countries. Further, the agreement called for trans-border cooperation and territorial investments and fair competition. It also included protection of intellectual property rights such as patents, copyrights and trade marks among the three countries.

EFFECTS OF NAFTA

NAFTA has affected the economies of US, Canada and Mexico in many ways. It has provided the three countries with large territories and markets for trade of their goods. It has significantly increased free trade among the three countries in both value and volume terms.

The formation of NAFTA has encouraged free movement of factors of production which has led to job creation in member countries. Free movement of factors of production has led to reduction in the

costs of production. As a result, Mexican manufacturing industries entered into US markets because of free trade. Moreover, Mexico and Canada which offered cheaper labor, has led to the shifting to many labor-intensive production units from the US to Mexico and Canada. This has resulted in loss of jobs of thousands of workers in the US manufacturing industries and also cheaper imports from these two countries. The US trade deficit with Mexico and Canada has increased, as US exports to them are lower than its imports from them. Further, goods manufactured in Mexico and Canada using low costs of production have affected the competitiveness of the American goods.

NAFTA has also some adverse effects on Mexico. Though there has been increase in productivity in the manufacturing sector, the real wages of workers have decreased in Mexico. This has increased the extent of poverty from about 51% in 1994 to 58.4% in 2001.

The removal of import barriers on corn after the formation of NAFTA has resulted in huge exports of corn from the US to Mexico. This has adversely affected the small producers of Mexico who find it difficult to compete with US exports. Moreover, heavy farm subsidies to the US farmers have tended to reduce Mexican farm prices thereby forcing many farmers out of business.

Lastly, large concentration of industries across the US-Mexico border has led to acute environmental pollution.

EXERCISES

1. What are the objectives and benefits of ASEAN? How will India benefit from its membership?
2. What is NAFTA? Explain the effects of NAFTA on America and Mexico.
3. Write Notes on : ASEAN, NAFTA.

PART THREE

BALANCE OF PAYMENTS



BALANCE OF PAYMENTS : MEANING AND COMPONENTS

1. MEANING

The balance of payments of a country is a systematic record of all its economic transactions with the outside world in a given year. It is a statistical record of the character and dimensions of the country's economic relationships with the rest of the world. According to Bo Sodersten, "The balance of payments is merely a way of listing receipts and payments in international transactions for a country."¹ B. J. Cohen says, "It shows the country's trading position, changes in its net position as foreign lender or borrower, and changes in its official reserve holding."²

2. STRUCTURE OF BALANCE OF PAYMENTS ACCOUNTS

The balance of payments account of a country is constructed on the principle of double-entry book-keeping. Each transaction is entered on the credit and debit side of the balance sheet. But balance of payments accounting differs from business accounting in one respect. In business accounting, debits (–) are shown on the left side and credits (+) on the right side of the balance sheet. But in balance of payments accounting, the practice is to show credits on the left side and debits on the right side of the balance sheet.

When a payment is received from a foreign country, it is a credit transaction while payment to a foreign country is a debit transaction. The principal items shown on the credit side (+) are exports of goods and services, unrequited (or transfer) receipts in the form of gifts, grants, etc. from foreigners, borrowings from abroad, investments by foreigners in the country, and official sale of reserve assets including gold to foreign countries and international agencies. The principal items on the *Debit* side (–) include imports of goods and services, transfer (or unrequited) payments to foreigners as gifts, grants, etc., lending to foreign countries, investments by residents to foreign countries, and official purchase of reserve assets or gold from foreign countries and international agencies.

[1.](#) Bo Sodersen, *International Economics*, 2/e, 1980.

[2.](#) B.J. Cohen, *Balance of Payments Policy*, 1969.

These credit and debit items are shown vertically in the balance of payments account of a country according to the principle of double-entry book-keeping. Horizontally, they are divided into three categories : the current account, the capital account, and the official settlements account or the official reserve assets account.

The balance of payments account of a country is constructed in Table 1.

Table 1. Balance of Payments Account

<i>Credits (+)</i> <i>(Receipts)</i>	<i>Debits (–)</i> <i>(Payments)</i>
	<i>1. Current Account</i>
<i>Exports</i>	<i>Imports</i>
(a) Goods	(a) Goods
(b) Services	(b) Services
(c) Transfer Payments	(c) Transfer Payments
	<i>2. Capital Account</i>
(a) Borrowings from Foreign Countries	(a) Lending to Foreign Countries
(b) Direct Investments by Foreign Countries	(b) Direct Investments in Foreign Countries
	<i>3. Official Settlements Account</i>
(a) Increase in Foreign Official Holdings	(a) Increase in Official Reserve of Gold and Foreign Currencies
	<i>Errors and Omissions</i>

1. Current Account. The current account of a country consists of all transactions relating to trade in goods and services and unilateral (or unrequited) transfers. Service transactions include costs of travel and transportation, insurance, income and payments of foreign investments, etc. Transfer payments relate to gifts, foreign aid, pensions, private remittances, charitable donations etc. received from foreign individuals and governments to foreigners.

In the current account, merchandise exports and imports are the most important items. Exports are shown as a positive item and are calculated f.o.b. (free on board) which means that costs of transportation, insurance, etc. are excluded. On the other side, imports are shown as a negative item and are calculated c.i.f. which means that costs, insurance and freight are included. The difference between exports and imports of a country is its *balance of visible trade* or merchandise trade or simply *balance of trade*. If visible

exports exceed visible imports, the balance of trade is favourable. In the opposite case when imports exceed exports, it is unfavourable.

It is, however, services and transfer payments or invisible items of the current account that reflect the true picture of the balance of payments account. The balance of exports and imports of services and transfer payments is called the *balance of invisible trade*. The invisible items alongwith the visible items determine the actual current account position. If exports of goods and services exceed imports of goods and services, the balance of payments is said to be *favourable*. In the opposite case, it is unfavourable.

In the current account, the exports of goods and services and the receipts of transfer payments (unrequited receipts) are entered as credits (+) because they represent receipts from foreigners. On the other hand, the imports of goods and services and grant of transfer payments to foreigners are entered as debits (–) because they represent payments to foreigners. The net value of these visible and invisible trade balances is the balance on current account.

2. Capital Account. The capital account of a country consists of its transactions in financial assets in the form of short-term and long-term lendings and borrowings, and private and official investments. In other words, the capital account shows international flow of loans and investments, and represents a change in the country's foreign assets and liabilities. Long-term capital transactions relate to international capital movements with maturity of one year or more and include direct investments like building of a foreign plant, portfolio investment like the purchase of foreign bonds and stocks, and international loans. On the other hand, short-term international capital transactions are for a period ranging between three months and less than one year.

There are two types of transactions in the capital account—private and government. Private transactions include all types of investment : direct, portfolio and short-term. Government transactions consist of loans to and from foreign official agencies.

In the capital account, borrowings from foreign countries and direct investment by foreign countries represent capital inflows. They are positive items or credits because these are receipts from foreigners. On the other hand, lending to foreign countries and direct investments in foreign countries represent capital outflows. They are negative items or debits because they are payments to foreigners. The net value of the balances of short-term and long-term direct and portfolio investments is the *balance on capital account*.

Sodersten and Reed refer to the *external wealth account* of a country which shows the stocks of foreign assets held by the country (positive item) and of domestic assets held by foreign investors (liabilities or negative item). The net value of a country's assets and liabilities is its balance of indebtedness. If its assets are more than its liabilities, then it is a net *creditor*. If its liabilities are more than its assets, then it is a net debtor.³

Basic Balance. The sum of current account and capital account is known as the basic balance.

3. The Official Settlements Account. The official settlements account or official reserve assets account is, in fact, a part of the capital account. But the U.K. and U.S. balance of payments accounts show it as a separate account. "The official settlements account measures the change in nation's liquidity and non-liquid liabilities to foreign official holders and the change in a nation's official reserve assets during the year. The official reserve assets of a country include its gold stock, holdings of its convertible foreign currencies and SDRs, and its net position in the IMF." It shows transactions in a country's net official reserve assets.

Errors and Omissions. Errors and omissions is a balancing item so that total credits and debits of the three accounts must equal in accordance with the principles of double entry book-keeping so that the balance of payments of a country always balances in the accounting sense.

3. IS BALANCE OF PAYMENTS ALWAYS IN EQUILIBRIUM ?

Balance of payments always balances means that the algebraic sum of the net credit and debit balances of current account, capital account and official settlements account must equal zero. Balance of payments is written as

$$B = R_f - P_f$$

where, B represents balance of payments,

R_f receipts from foreigners,

P_f payments made to foreigners.

When $B = R_f - P_f = 0$, the balance of payments is in equilibrium.

When $R_f - P_f > 0$, it implies receipts from foreigners exceed payments made to foreigners and there is surplus in the balance of payments. On the other hand, when $R_f - P_f < 0$ or $R_f < P_f$ there is deficit in the balance of payments as the payments made to foreigners exceed receipts from foreigners.

If net foreign lending and investment abroad are taken, a flexible exchange rate creates an excess of exports over imports. The domestic currency depreciates in terms of other currencies. The exports becomes cheaper relatively to imports. It can be shown in equation form :

$$X + B = M + I_f$$

Where X represents exports, M imports, I_f foreign investment, B foreign borrowing

or

$$X - M = I_f - B$$

or

$$(X - M) - (I_f - B) = 0$$

The equation shows the balance of payments in equilibrium. Any positive balance in its current account is exactly offset by negative balance on its capital account and vice versa. In the accounting sense, the balance of payments always balances. This can be shown with the help of the following equation :

$$\begin{array}{lcl} \text{or} & C + S + T = C + I + G + (X - M) & \\ & Y = C + I + G + (X - M) & [\because Y = C + S + T] \end{array}$$

where C represents consumption expenditure, S domestic saving, T tax receipts, I investment expenditures, G government expenditures, X exports of goods and services, and M imports of goods and services.

In the above equation

$C + S + T$ is *GNI or national income* (Y), and

$$C + I + G = A,$$

where A is called 'absorption'.

In the accounting sense, total domestic expenditures ($C + I + G$) must equal current income ($C + S + T$) that is $A = Y$. Moreover, domestic saving (S_d) must equal domestic investment (I_d). Similarly, an export surplus on current account ($X > M$) must be offset by an excess of domestic savings over investment ($S_d > I_d$). Thus the balance of payments always balances in the accounting sense, according to the basic principle of accounting. In the accounting system, the inflow and outflow of a transaction are recorded on the credit and debit sides respectively. Therefore, credit and debit sides always balance. If there is a deficit in the current account, it is offset by a matching surplus in the capital account by borrowings from abroad or/and withdrawing out of its gold and foreign exchange

reserves, and vice versa. Thus, the balance of payments always balances in this sense also.

4. MEASURING DEFICIT OR SURPLUS IN BALANCE OF PAYMENTS

If the balance of payments always balances, then why does a deficit or surplus arise in the balance of payment of a country? It is only when all items in the balance of payments are included that there is no possibility of a deficit or surplus. But if some items are excluded from a country's balance of payments and then a balance is struck, it may show a deficit or surplus.

There are three ways of measuring deficit or surplus in the balance of payments.

First, there is the *basic balance* which includes the current account balance and the long-term capital account balance.

Second, there is the *net liquidity balance* which includes the basic balance and the short-term private non-liquid capital balance, allocation of SDRs, and errors and omissions.

Third, there is the *official settlements balance* which includes the total net liquid balance and short-term private liquid capital balance.

If the total debits are more than total credits in the current and capital accounts, including errors and omissions, the net *debit balance* measures the *deficit* in the balance of payments of a country. This deficit can be settled with an equal amount of *net credit balance* in the official settlements account. On the contrary, if total credits are more than total debits in the current and capital accounts, including errors and omissions, the *net debit balance* measures the *surplus* in the balance of payments of a country. This surplus can be settled with an equal amount of *net debit balance* in the official settlements account.

The relationship between these balances is summarised in Table 2 below.

Table 2

Trade balance	a	
Transfer payments balance	b	Autonomous
Current Account Balance	$c (= a + b)$	Items
Long-term capital balance	d	
Basic Balance	$e (= c + d)$	
Short-term private non-liquid capital balance	f	
Allocation of SDRs	g	Accommodating
Errors and omissions	h	Items
Net Liquidity Balance.....	$i (= e + f + g + h)$	
Short-term private liquid capital balance	j	
Official Settlements Balance.....	$k (= i + j)$	

Autonomous and Accommodating Items

Each balance would give different figure of the deficit. The items that are included in a particular balance are placed 'above the line' and those excluded are put 'below the line'. Items that are put above the line are called *autonomous items*. Items that are placed below the line are called *settlement or accommodating or compensatory or induced items*. All transactions in the current and capital accounts are autonomous items because they are undertaken for business or profit motives and are independent of balance of payments considerations. According to Sodersten and Reed, "Transactions are said to be autonomous if their value is determined independently of the balance of payments". Whether there is *BOP* deficit or surplus depends on the balance of autonomous items. If autonomous receipts are less than autonomous payments, *BOP* is in deficit and vice versa.

"Accommodating items on the other hand are determined by the net consequences of the autonomous items", according to Sodersten and Reed. They are in the official reserve account. They are compensating (induced or accommodating) short-term capital transactions which are meant to correct a disequilibrium in the autonomous items of balance of payments.

But it is difficult to determine which item is compensatory and which is autonomous. For instance, in the table given above, the main difference in the three balances is their treatment of short-term capital movements which are responsible for deficit in the balance of payments. The basic balance places short-term private non-liquid capital movements below the line while the net liquid balance puts them above the line. Similarly, the net liquid balance places short-term private liquid capital movements below the line and the official settlements balance puts them above the line. Thus, as pointed out by Sodersten and Reed, “Essentially the distinction between autonomous and accommodating items lies in the motives underlying a transaction, which are almost impossible to determine”⁴.

Conclusion. The above analysis is based on the assumption of fixed exchange rates. Thus a deficit (or surplus in the balance of payments is possible under a system of fixed exchange rates. But under freely floating exchange rates, there can in principle be no deficit (or surplus) in the balance of payments. The country can prevent a deficit or (surplus) by depreciating (or appreciating) its currency. Further, balance of payments always balances in an ex-post accounting sense, according to the basic principle of accounting. Lastly, such a balance of payments can be in equilibrium only if there are no compensating transactions.

⁴. Bo Sodersten and G. Reed, *International Economics*, 3/e, 1994, Italics added.

5. BALANCE OF TRADE AND BALANCE OF PAYMENTS

The balance of payments of a country is a systematic record of its receipts and payments in international transactions in a given year. Each transaction is entered on the credit and debit side of the balance sheet (see Table 1). The principal items on the credit side are : (1) Visible exports which relate to the goods exported for which the country receives payments. (2) Invisible exports which refer to the services rendered by the country to other countries. Such services consist of banking, insurance, shipping, and other services

rendered in the form of technical know-how, etc., money spent by tourists and students visiting the country for travel and education, etc. (3) Transfer receipts in the form of gifts received from foreigners. (4) Borrowings from abroad and investments by foreigners in the country. (5) The official sale of reserve assets including gold to foreign countries and international institutions.

The principal items on the debit side are : (1) Visible imports relating to goods imported for which the country makes payments to foreign countries. (2) Invisible imports in the form of payments made by the home country for services rendered by foreign countries. These include all items referred to under (2) in the above para. (3) Transfer payments to foreigners in the form of gifts, etc. (4) Loans to foreign countries, investments by residents in foreign countries, and debt repayments to foreign countries. (5) Official purchase of reserve assets or gold from foreign countries and international institutions.

If the total receipts from foreigners on the credit side exceed the total payments to foreigners on the debit side, the balance of payments is said to be *favourable*. On the other hand, if the total payments to foreigners exceed the total receipts from foreigners, the balance of payments is *unfavourable*.

The *balance of trade* is the difference between the value of goods and services exported and imported. It contains the first two items of the balance of payments account on the credit and the debit side. This is known as “balance of payment on current account.” Some writers define the balance of trade as the difference between the value of merchandise exports and imports. Prof. Meade regards this way of defining the balance of trade as wrong and of minor economic significance from the point of view of the national income of the country. In equation form, the balance of payments of $Y = C + I + G + (X - M)$ which includes all transactions which give rise to or exhaust national income. In the equation, Y refers to national income, C to consumption expenditure, I to investment expenditure, G to government expenditure, X to exports of goods and services and M to imports of goods and services. The expression $(X - M)$

denotes the balance of trade. If the difference between X and M is zero, the balance of trade balances. If X is greater than M , the balance of trade is *favourable*, or there is *surplus* balance of trade. On the other hand, if X is less than M , the balance of trade is in *deficit* or is *unfavourable*.

6. DISEQUILIBRIUM IN BALANCE OF PAYMENTS

A disequilibrium in the *BOP* of a country may be either a deficit or a surplus. A deficit or surplus in *BOP* of a country appears when its autonomous receipts (credits) do not match its autonomous payments (debits). If autonomous credit receipts exceed autonomous debit payments, there is a surplus in the *BOP* and the disequilibrium is said to be *favourable*. On the other hand, if autonomous debit payments exceed autonomous credit receipts, there is a *deficit* in the *BOP* and the disequilibrium is said to be unfavourable or adverse.⁵

CAUSES OF DISEQUILIBRIUM

There are many factors that may lead to a *BOP* deficit or surplus:

1. Temporary Changes (or Disequilibrium). There may be a temporary disequilibrium caused by random variations in trade, seasonal fluctuations, the effects of weather on agricultural production, etc. Deficits or surpluses arising from such temporary causes are expected to correct themselves within a short time.

2. Fundamental Disequilibrium. Fundamental disequilibrium refers to a persistent and long-run *BOP* disequilibrium of a country. It is a chronic *BOP* deficit, according to *IMF*. It is caused by such dynamic factors as : (1) Changes in consumer tastes within the country or abroad which reduce the country's exports and increase its imports. (2) Continuous fall in the country's foreign exchange reserves due to supply inelasticities of exports and excessive demand for foreign goods and services. (3) Excessive capital outflows due to massive

imports of capital goods, raw materials, essential consumer goods, technology and external indebtedness. (4) Low competitive strength in world markets which adversely affects exports. (5) Inflationary pressures within the economy which make exports dearer.

3. Structural Changes (or Disequilibrium). Structural changes bring about disequilibrium in *BOP* over the long run. They may result from the following factors: (a) Technological changes in methods of production of products in domestic industries or in the industries of other countries. They lead to changes in costs, prices and quality of products. (b) Import restrictions of all kinds bring about disequilibrium in *BOP*. (c) Deficit in *BOP* also arises when a country suffers from deficiency of resources which it is required to import from other countries. (d) Disequilibrium in *BOP* may also be caused by changes in the supply or direction of long-term capital flows. More and regular flow of long-term capital may lead to *BOP* surplus, while an irregular and short supply of capital brings *BOP* deficit.

4. Changes in Exchange Rates. Changes in foreign exchange rate in the form of overvaluation or undervaluation of foreign currency lead to *BOP* disequilibrium. When the value of currency is higher in relation to other currencies, it is said to be overvalued. Opposite is the case of an undervalued currency. Overvaluation of the domestic currency makes foreign goods cheaper and exports dearer in foreign countries. As a result, the country imports more and exports less of goods. There is also outflow of capital. This leads to unfavourable *BOP*. On the contrary, undervaluation of the currency makes *BOP* favourable for the country by encouraging exports and inflow of capital and reducing imports.

5. The distinction between deficit and disequilibrium in *BOP* should be clearly understood. The former refers to unfavourable or adverse *BOP* as explained above whereas disequilibrium refers to a deficit or surplus in *BOP*.

5. Cyclical Fluctuations (or Disequilibrium). Cyclical fluctuations in business activity also lead to *BOP* disequilibrium. When there is depression in a country, volumes of both exports and imports fall

drastically in relation to other countries. But the fall in exports may be more than that of imports due to decline in domestic production. Therefore, there is an adverse *BOP* situation. On the other hand, when there is boom in a country in relation to other countries, both exports and imports may increase. But there can be either a surplus or deficit in *BOP* situation depending upon whether the country exports more than imports or imports more than exports. In both the cases, there will be disequilibrium in BOP.

6. Changes in National Income. Another cause is the change in the country's national income. If the national income of a country increases, it will lead to an increase in imports thereby creating a deficit in its balance of payments, other things remaining the same. If the country is already at full employment level, an increase in income will lead to inflationary rise in prices which may increase its imports and thus bring disequilibrium in the balance of payments.

7. Price Changes. Inflation or deflation is another cause of disequilibrium in the balance of payments. If there is inflation in the country, prices of exports increase. As a result, exports fall. At the same time, the demand for imports increase. Thus increase in export prices leading to decline in exports and rise in imports results in adverse balance of payments.

8. Stage of Economic Development. A country's balance of payments also depends on its stage of economic development. If a country is developing, it will have a deficit in its balance of payments because it imports raw materials, machinery, capital equipment, and services associated with the development process and exports primary products. The country has to pay more for costly imports and gets less for its cheap exports. This leads to disequilibrium in its balance of payments.

9. Capital Movements. Borrowings and lendings or movements of capital by countries also result in disequilibrium in BOP. A country which gives loans and grants on a large scale to other countries has a deficit in its *BOP* on capital account. If it is also importing more, as is the case with the USA, it will have chronic deficit. On the other

hand, a developing country borrowing large funds from other countries and international institutions may have a favourable BOP. But such a possibility is remote because these countries usually import huge quantities of food, raw materials, capital goods, etc. and export primary products. Such borrowings simply help in reducing *BOP* deficit.

10. Political Conditions. Political condition of a country is another cause of disequilibrium in BOP. Political instability in a country creates uncertainty among foreign investors which leads to the outflow of capital and retards its inflow. This causes disequilibrium in *BOP* of the country. Disequilibrium in *BOP* also occurs in the event of war or fear of war with some other country.

IMPLICATIONS OF DISEQUILIBRIUM

A disequilibrium in the balance of payments whether a deficit or surplus has important implications for a country.

A deficit in the combined current and capital accounts is regarded as undesirable for the country. This is because such a deficit has to be covered by borrowing from abroad or attracting foreign exchange or capital from abroad. This may require paying high interest rates. There is also the danger of withdrawing money by foreigners, as happened in the case of the Asian crisis in the late 1990s. An alternative may be to draw on the reserves of the country which may also lead to a financial crisis. Moreover, the reserves of a country being limited, they can be used to pay for *BOP* deficit upto a limit.

But the above analysis of a combined current and capital account deficit is not correct in practice. The reason being that a current account deficit is the same thing as a capital account surplus. However, it is beneficial for a country to have a current account deficit even if it equals capital account surplus in BOP. In the short-run, the country may benefit from a higher level of consumption through import of goods and consequently a higher standard of living. But the excess of imports over exports may be financed by

foreign investments in the country. These may lead to increased production, employment and income in the country. In the long-run, foreign investors may purchase large assets in the country and thus adversely affect domestic industry as is the case with MNCs (multinational corporations).

The current account deficit in *BOP* of a country may have either good or bad effects depending on the nature of an economy.

Take a country where domestic industries are rapidly growing and it has current account *BOP* deficit. These industries offer a high rate of return on their investment. This would, in return, attract foreign investments. As a result, the country would have a capital account surplus due to the inflow of capital and a current account deficit. This current account deficit is good for the economy. No doubt, the external debt of the country increases, but this debt is being utilised to finance the rapid growth of the economy. The real burden of this debt will be very low because it can be repaid out of higher income in the future.

On the contrary, a country having an inefficient and unproductive domestic industry will be adversely affected by its current account *BOP* deficit. The country borrows from abroad to finance the excess of spending over consumption. To attract foreign borrowings, the country will have to pay high interest rates. These will increase the money burden of the debt. The real burden of the debt will also increase because of the low productive capacity of domestic industries. If the current consumption is being financed by foreign borrowings, the wealth of the economy will decline. This, in turn, will lead to either a reduction in domestic expenditure or a change in government policy so as to control the rising debt.

On the other hand, if foreign borrowings are being used to finance real investment, the current account *BOP* deficit will be beneficial for the economy. A higher rate of return on real investment than the interest on foreign borrowings would increase the country's wealth over time through rise in its national income. Thus a current account *BOP* deficit is not always undesirable for a country.

7. MEASURES TO CORRECT DEFICIT IN BALANCE OF PAYMENTS⁶

When there is a deficit in the balance of payments of a country, adjustment is brought about automatically through price and income changes or by adopting certain policy measures like export promotion, monetary and fiscal policies, devaluation and direct controls. We study these as follows:

1. ADJUSTMENT THROUGH EXCHANGE DEPRECIATION (PRICE EFFECT)

Under flexible exchange rates, the disequilibrium in the balance of payments is automatically solved by the forces of demand and supply for foreign exchange. An exchange rate is the price of a currency which is determined, like any other commodity, by demand and supply. “The exchange rate varies with varying supply and demand conditions, but it is always possible to find an equilibrium exchange rate which clears the foreign exchange market and creates external equilibrium.”⁷ This is automatically achieved by depreciation of a country’s currency in case of deficit in its balance of payments. Depreciation of a currency means that its relative value decreases. Depreciation has the effect of encouraging exports and discouraging imports. When exchange depreciation takes place, foreign prices are translated into domestic prices. Suppose the dollar depreciates in relation to the pound. It means, that the price of dollar falls in relation to the pound in the foreign exchange market. This leads to the lowering of the prices of U.S. exports in Britain and raising of the prices of British imports in the U.S. When import prices are higher in the U.S., the Americans will purchase less goods from the Britishers. On the other hand, lower prices of U.S. exports will increase exports and diminish imports, thereby bringing equilibrium in the balance of payments.

6. If the question relates to disequilibrium in *BOP* , then measures opposite to whatever are given in the paras should also be explained relating to *BOP* surplus, such as appreciation, revaluation, etc. The best answer would be to write at the end of each para : The opposite measures would be adopted in case of *BOP* surplus. Mention the measures in the dotted portion.

7. Bo Sodersten, *International Economics*, p. 215.

2. DEVALUATION OR EXPENDITURE-SWITCHING POLICY

Devaluation raises the domestic price of imports and reduces the foreign price of exports of a country devaluing its currency in relation to the currency of another country. Devaluation is referred to as expenditure switching policy because it switches expenditure from imported to domestic goods and services. When a country devalues its currency, the price of foreign currency increases which makes imports dearer and exports cheaper. This causes expenditures to be switched from foreign to domestic goods as the country's exports rise and the country produces more to meet the domestic and foreign demand for goods with reduction in imports. Consequently, the balance of payments deficit is eliminated.

3. DIRECT CONTROLS

To correct disequilibrium in the balance of payments, government also adopts direct controls which aim at limiting the volume of imports. The government restricts the import of undesirable or unimportant items by levying heavy import duties, fixation of quotas, etc. At the same time, it may allow imports of essential goods duty free or at lower import duties, or fix liberal import quotas for them. For instance, the government may allow free entry of capital goods, but impose heavy import duties on luxuries. Import quotas are also fixed and the importers are required to take licenses from the authorities in order to import certain essential commodities in fixed quantities. In these ways, imports are reduced in order to correct an adverse balance of payments. The government also imposes

exchange controls. Exchange controls have a dual purpose. They restrict imports and also control and regulate the foreign exchange. With reduction in imports and control of foreign exchange, visible and invisible imports are reduced. Consequently, an adverse balance of payment is corrected.

4. ADJUSTMENT THROUGH CAPITAL MOVEMENTS

A country can use capital imports to correct a deficit in its balance of payments. A deficit can be financed by capital inflows. When capital is perfectly mobile within countries, a small rise in the domestic rate of interest brings a large inflow of capital. The balance of payments is said to be in equilibrium when the domestic interest rate equals the world rate. If the domestic interest rate is higher than the world rate, there will be capital inflows and the balance of payments deficit is corrected.

5. ADJUSTMENT THROUGH INCOME CHANGES

Given the foreign exchange rate and prices in a country, an increase in the value of exports, causes an increase in the incomes of all persons associated with the export industries. These, in turn, create demand for other goods and services within the country. This will raise the incomes of persons engaged in the latter industries and services. This process will continue and the national income increases by the value of the multiplier.

6. STIMULATION OF EXPORTS AND IMPORT SUBSTITUTES

A deficit in the balance of payments can also be corrected by encouraging exports. Exports can be encouraged by producing quality products, by increasing exports through increased production and productivity, and by better marketing. They can also be increased by a policy of import substitution. It means that the country produces those goods which it imports. In the beginning, imports are reduced but in the long run exports of such goods start. An increase in exports cause the national income to rise by many times through

the operation of the foreign trade multiplier. The foreign trade multiplier expresses the change in income caused by a change in exports. Ultimately, the deficit in the balance of payments is removed when exports rise faster than imports.

7. EXPENDITURE-REDUCING POLICIES

A deficit in the balance of payments implies an excess of expenditure over income. To correct it, expenditure and income should be brought into equality. For this expenditure reducing monetary and fiscal policies are used. A contractionary or tight monetary policy relates to increase in interest rates to reduce money supply and a contractionary fiscal policy relates to reduction in government expenditure and or increase in taxes. Thus expenditure reducing policies reduce aggregate demand through higher taxes and interest rates, thereby reducing expenditure and output. The reduction in expenditure and output, in turn, reduces the domestic price level. This gives rise to switching of expenditure from foreign to domestic goods. Consequently, the country's imports are reduced and the balance of payments deficit is corrected.

EXERCISES

1. Enumerate the principle items in the balance of payments of a country. How can a deficit in the balance of payments be corrected?
2. "Balance of Payments always balances." Elucidate. But how do you explain disequilibrium in balance of payments.
3. Distinguish between balance of payments and balance of trade. How can an unfavourable balance of payments be corrected?
4. What are the causes of an adverse balance of payments? Give suggestions to remove an unfavourable balance of payments?
5. Distinguish between : (a) Balance of Current Account and Balance of Capital Account; (b) Autonomous Balance and Overall

Balance; (c) Autonomous Transactions and Accommodating Transactions; (d) Deficit and Disequilibrium in Balance of Payments.



ADJUSTMENT MECHANISMS OF BALANCE OF PAYMENTS

1. INTRODUCTION

When there is a deficit or surplus in *BOP* of a country, it is adjusted through the following mechanisms :

1. Automatic adjustment through price and income changes. Price changes are studied under flexible or floating exchange rates and under the Gold Standard. Income changes are explained in terms of the foreign trade multiplier in the next chapter.
2. Adjustment policies are induced changes to correct disequilibrium in *BOP* by the government of a country. They include expenditure changing and expenditure switching policies, maintaining external and internal balance, direct controls, etc. They are discussed in a separate chapter.
3. There are also approaches to balance of payments which form part of policy measures but are usually discussed separately as Elasticity, Absorption, and Monetary Approaches. They are explained below.

2. AUTOMATIC PRICE ADJUSTMENT UNDER GOLD STANDARD

Under the international gold standard which operated between 1880-1914, the currency in use was made of gold or was convertible into gold at a fixed rate. The central bank of the country was always ready to buy and

sell gold at the specified price. The rate at which the standard money of the country was convertible into gold was called the *mint price* of gold. This rate was called the *mint parity* or *mint par of exchange* because it was based on the mint price of gold. But the actual rate of exchange could vary above and below the mint parity by the cost of shipping gold between the two countries. To illustrate this, suppose the uS had a deficit in its balance of payments with Britain. The difference between the value of imports and exports would have to be paid in gold by US importers because the demand for pounds exceeded the supply of pounds. But the transshipment of gold involved transportation cost and other handling charges, insurance, etc. Suppose the shipping cost of gold from the US to Britain was 3 cents. So the US importers would have to spend \$ 6.03 (\$ 6 + .03c) for getting £ 1. This could be the exchange rate which was the US *gold export point* or *upper specie point*. No US importer would pay more than \$ 6.03 to obtain £ 1 because he could buy \$ 6 worth of gold from the US treasury and ship it to Britain at a cost of 3 cents per ounce. Similarly, the exchange rate of the pound could not fall below \$ 5.97 in the case of a surplus in the US balance of payments. Thus the exchange rate of \$ 5.97 to a pound was the US *gold import point* or *lower specie point*. The exchange rate under the gold standard was determined by the forces of demand and supply between the gold points and was prevented from moving outside the gold points by shipments of gold. The main objective was to keep *BOP* in equilibrium. A deficit or surplus in *BOP* under the gold standard was automatically adjusted by the price-specie-flow mechanism. For instance, a *BOP* deficit of a country meant a fall in its foreign exchange reserves due to an outflow of its gold to a surplus country. This reduced the country's money supply thereby bringing a fall in the general price level. This, in turn, would increase its exports and reduce its imports. This adjustment process in *BOP* was supplemented by a rise in interest rates as a result of reduction in money supply. This led to the inflow of short-term capital from the surplus country. Thus the inflow of short-term capital from the surplus to the deficit country helped in restoring *BOP* equilibrium.¹

3. AUTOMATIC PRICE ADJUSTMENT UNDER FLEXIBLE EXCHANGE RATES (PRICE EFFECT)

Under flexible (or floating) exchange rates, the disequilibrium in the balance of payments is automatically solved by the forces of demand and

supply for foreign exchange. An exchange rate is the price of a currency which is determined, like any other commodity, by demand and supply. "The exchange rate varies with varying supply and demand conditions, but it is always possible to find an equilibrium exchange rate which clears the foreign exchange market and creates external equilibrium."² This is automatically achieved by a depreciation (or appreciation) of a country's currency in case of a deficit (or surplus) in its balance of payments. Depreciation (or appreciation) of a currency means that its relative value decreases (or increases). Depreciation has the effect of encouraging exports and discouraging imports. When exchange depreciation takes place, foreign prices are translated into domestic prices. Suppose the dollar depreciates in relation to the pound. it means, that the price of dollar falls in relation to the pound in the foreign exchange market. This leads to the lowering of the prices of U.S. exports in Britain and raising of the prices of British imports in the U.S. When import prices are higher in the U.S., the Americans will purchase less goods from the Britishers. on the other hand, lower prices of U.S. exports will increase their sales to Britain. Thus the U.S. exports will increase and imports diminish, thereby bringing equilibrium in the balance of payments.

Its Assumptions. This analysis is based on the following assumptions :

1. There are two countries Britain and U.S.
2. Both are on flexible exchange rate system.
3. *BOP* disequilibrium is automatically adjusted by changes in exchange rates.
4. Prices are flexible in both the countries.
5. There is free trade between the two countries.

Given these assumptions, the adjustment process is explained in terms of Figure 1 where *D* is the U.S. demand curve of foreign exchange representing its demand for British imports, and *S* is the U.S. supply curve of foreign exchange representing its exports to Britain. At *P* the demand and supply of the U.S. foreign exchange is in equilibrium where the rate of exchange between U.S. dollar and British pound is *OE* and the quantity of exchange is *OQ*.

1. For assumptions and criticisms refer to the Mint Parity Theory in the chapter "Foreign Exchange Rate."

2. Bo Sodersten, *International Economics*, p. 215.

Suppose disequilibrium develops in the balance of payments of the U.S. in relation to Britain. This is shown by a shift in the demand curve from D to D_1 and the incipient deficit equals PP_2 . This means an increase in the U.S. demand for British imports which leads to an increase in the demand for pound. This implies depreciation of the U.S. dollar and appreciation of the British pound. As a result, import prices of British goods rise in the U.S. and the prices of U.S. exports fall. This tends to bring about a new equilibrium at P_1 and a new exchange rate at OE_1 whereby the deficit in the balance of payments is eliminated. The demand for foreign exchange equals the supply of foreign exchange at OQ_1 and the balance of payments is in equilibrium.

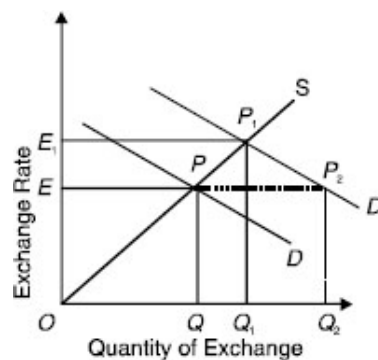


FIG. 1

When the exchange rate rises to OE_1 , U.S. goods become cheaper in Britain and British goods become expensive in U.S. in terms of dollar. As a result of changes in *relative prices*, the lower prices of U.S. goods increase the demand for them in Britain. This tends to raise the U.S. exports to Britain which is shown as the movement from P to P_1 along the supply curve S . At the same time, the higher price of British goods in terms of dollars tends to reduce demand for British goods and to switch demand to domestic goods in the U.S. This leads to the movement from P_2 to P_1 along the new demand curve D_1 . Thus the *incipient* deficit PP_2 in *BOP* is removed by increase in the foreign exchange supplied by QQ_1 and decrease in the foreign exchange demanded by Q_2Q_1 so that *BOP* equilibrium is achieved at the exchange rate OE_1 whereby OQ_1 foreign exchange is supplied and demanded.

The above analysis is based on the assumption of *relative elasticities* of demand and supply of foreign exchange. However, in order to measure the full effect of depreciation on relative prices in the two countries, it is not sufficient for demand and supply conditions to be relatively elastic. What is important is *low elasticities* of demand and supply of foreign

exchange. This is illustrated in Figure 2 where the original *less elastic* demand and supply curves of foreign exchange are D and S respectively which intersect at P and the equilibrium exchange rate is OE . Now a deficit in the balance of payments develops equals to PP_2 . Since the *elasticities* of demand and supply of foreign exchange are very low (inelastic), it requires a very large amount of depreciation of the dollar and the appreciation of the pound for the restoration of the equilibrium. The

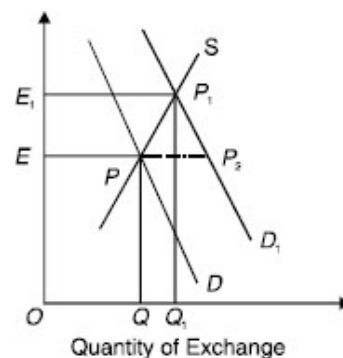


FIG. 3

equilibrium will be established through relative price movements in the two countries, as explained above, at P_1 with a very high rate of foreign exchange OE_1 . But such a high rate of depreciation would lead to very high price changes in the two countries thereby tending to disrupt their economies.

Its Criticism. The practical use of flexible exchange rates is severely limited. *Depreciation* and *appreciation* lead to fall and rise in prices in the countries adopting them. They lead to severe depressions and inflations respectively. Further, they create insecurity and uncertainty. This is more due to speculation in foreign exchange which destabilises the economies of countries adopting flexible exchange rates. Governments, therefore, favour fixed exchange rates which require adjustments in the balance of payments by adopting policy measures.

4. THE ELASTICITY APPROACH

MARSHALL-LERNER CONDITION

The elasticity approach to *BOP* is associated with the Marshall-Lerner condition which was worked out independently by these two economists. It studies the conditions under which exchange rate changes restore equilibrium in *BOP* by *devaluing* a country's currency. This approach is related to the price effect of devaluation.

Assumptions. This analysis is based on the following assumptions :

1. Supplies of exports and imports are perfectly elastic.

2. Product prices are fixed in domestic currency.
3. income level are fixed in the devaluing country.
4. The supply elasticities are large.
5. The price elasticities of demand for exports and imports are *arc* elasticities.
6. Price elasticities refer to absolute values.
7. The country's current account balance equals its trade balance.

The Theory. Given these assumptions, when a country devalues its currency, the domestic prices of its imports are raised and the foreign prices of its exports are reduced. Thus devaluation helps to improve *BOP* deficit of a country by increasing its exports and reducing its imports. But the extent to which it will succeed depends on the country's price elasticities of domestic demand for imports and foreign demand for exports. This is what the Marshall-Lerner condition states: *when the sum of price elasticities of demand for exports and imports in absolute terms is greater than unity, devaluation will improve the country's balance of payments, i.e. $e_x + e_m > 1$*

where e_x is the demand elasticity of exports and E_m is the demand elasticity for imports. on the contrary, if the sum of price elasticities of demand for exports and imports, in absolute terms, is less unity, $e_x + e_m < 1$, devaluation will *worsen* (increase the deficit) the *BOP*. If the sum of these elasticities in absolute terms is equal to unity, $e_x + e_m = 1$, devaluation has no effect on the *BOP* situation which will remain unchanged.³

The following is the *process* through which the Marshall-Lerner condition operates in removing *BOP* deficit of a devaluing country.

Devaluation reduces the domestic prices of exports in terms of the foreign currency. With low prices, exports increase. The extent to which they increase depends on the demand elasticity for exports. It also depends on the nature of goods exported and the market conditions. If the country is the sole supplier and exports raw materials or perishable goods, the demand elasticity for its exports will be low. If it exports machinery, tools

and industrial products in competition with other countries, the elasticity of demand for its products will be high, and devaluation will be successful in correcting a deficit.

Devaluation has also the effect of increasing the domestic price of imports which will reduce the import of goods. By how much the volume of imports will decline depends on the demand elasticity of imports. The demand elasticity of imports, in turn, depends on the nature of goods imported by the devaluing country. If it imports consumer goods, raw materials and inputs for industries, its elasticity of demand for imports will be low. It is only when the import elasticity of demand for products is high that devaluation will help in correcting a deficit in the balance of payments.

3. For the derivation of the Marshall-Lerner condition interested students may refer to C.P. Kindleberger, *op. cit.*, Appendix H.

Thus it is only when the sum of the elasticity of demand for exports and the elasticity of demand for imports is greater than one that devaluation will improve the balance of payments of a country devaluing its currency.

The J-Curve Effect. Empirical evidence shows that the Marshall-Lerner condition is satisfied in the majority of advanced countries. But there is a general consensus among economists that both demand-supply elasticities will be greater in the long run than in the short run. The effects of devaluation on domestic prices and demand for exports and imports will take time for consumers and producers to adjust themselves to the new situation. The short-run price elasticities of demand for exports and imports are lower and they do not satisfy the Marshall-Lerner condition. Therefore, to begin with, devaluation makes the *BOP* worse in the short-run and then improves it in the long-run. This traces a J-shaped curve through time. This is known as the *J-curve effect* of devaluation. This is illustrated in Fig. 3 where time is taken on the horizontal axis and deficit-surplus on the vertical axis. Suppose devaluation takes place at time T . In the beginning, the curve J has a big loop which shows increase in *BOP* deficit beyond D . It is only after time T_1 that it starts sloping upwards and the deficit begins to reduce. At time T_2

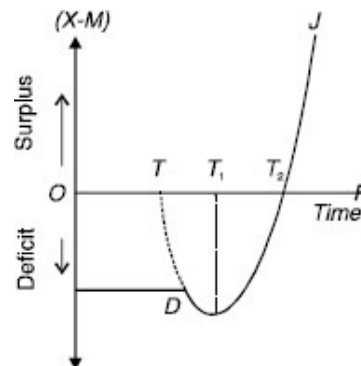


FIG. 3

there is equilibrium in *BOP* and then the surplus arises from T_2 to J. If the Marshall-Lerner condition is not satisfied, in the long run, the J-curve will flatten out to F from T_2 .

However, in case the country is on a flexible exchange rate, *BOP* will get worse when there is

devaluation of its currency. Due to devaluation, there is excess supply of currency in the foreign

exchange market which may go on depreciating the currency. Thus the foreign exchange market

becomes unstable and the exchange rate may overshoot its long-run value.

Its Criticisms. The elasticity approach based on the Marshall Lerner condition has the following defects.

1. Misleading. The elasticity approach which applies the Marshallian concept of elasticity to solve *BOP* deficit is misleading. This is because it has relevance only to incremental change along a demand or supply curve and to problems dealing with shifts in these curves. Moreover, it assumes constant purchasing power of money which is not relevant to devaluation of the country's currency.

2. Partial Elasticities. The elasticity approach has been criticised by Alexander because it uses partial elasticities which exclude all factors except relative prices and quantities of exports and imports. This is applicable only to single-commodity trade rather than to a multi-commodity trade. It makes this approach unrealistic.

Assuming full employment in the economy, Kindleberger has made refinements to the elasticity approach by taking total rather than partial elasticities. He also considers elasticities for exports and imports, and the pattern of substitution generated by the change in relative prices. But the problem with this approach is that the supply elasticities themselves depend on demand conditions.⁴

3. Supplies not Perfectly Elastic. The Marshall-Lerner condition assumes perfectly elastic supplies of exports and imports. But this

assumption is unrealistic because the country may not be in a position to increase the supply of its exports when they become cheap with devaluation of its currency.

4. Partial Equilibrium Analysis. The elasticity approach assumes domestic price and income levels to be stable within the devaluing country. It, further, assumes that there are no restrictions in using additional resources into production for exports. These assumptions show that this analysis is based on the partial equilibrium analysis. It, therefore, ignores the feedback effects of a price change in one product on incomes, and consequently on the demand for goods. This is a serious defect of the elasticity approach because the effects of devaluation always spread to the entire economy.

[4.](#) This para may be left out without loss of continuity.

5. Inflationary. Devaluation can lead to inflation in the economy. Even if it succeeds in improving the balance of payments, it is likely to increase domestic incomes in export and import-competing industries. But these increased incomes will affect the *BOP* directly by increasing the demand for imports, and indirectly by increasing the overall demand and thus raising the prices within the country.

6. Ignores Income Distribution. The elasticity approach ignores the effects of devaluation on income distribution. Devaluation leads to the reallocation of resources. It takes away resources from the sector producing non-traded goods to export and import-competing industries sector. This will tend to increase the incomes of the factors of production employed in the latter sector and reduce that of the former sector.

7. Applicable in the Long Run. As discussed above in the J-curve effect of devaluation, the Marshall-Lerner condition is applicable in the long-run and not in the short. This is because it takes time for consumers and producers to adjust themselves when there is devaluation of the domestic currency.

8. Ignores Capital Flows. This approach is applicable to *BOP* on current account or balance of trade. But *BOP* deficit of a country is mainly the result of the outflow of capital. It thus ignores *BOP* on capital account.

Devaluation as a remedy is meant to cut imports and the outflow of capital and increase exports and the inflow of capital.

Conclusion. There has been much controversy over the Marshall-Lerner condition for improvements in the balance of payments. Economists tried to measure demand elasticities in international trade. Some economists found low demand elasticities and others high demand elasticities. Accordingly, the former suggested that devaluation was not an effective method while the latter suggested that it was a potent mechanism of balance of payments adjustment. But it is difficult to generalise due to these diverse findings on account of differences in the volume and structure of foreign trade.

5. THE ABSORPTION APPROACH

The absorption approach to balance of payments is general equilibrium in nature and is based on the Keynesian national income relationships. It is, therefore, also known as the Keynesian approach. It runs through the *income effect of devaluation* as against the price effect to the elasticity approach. The theory states that if a country has a deficit in its balance of payments, it means that people are 'absorbing' more than they produce. Domestic expenditure on consumption and investment is greater than national income. If they have a surplus in the balance of payments, they are absorbing less. Expenditure on consumption and investment is less than national income. Here the *BOP* is defined as the difference between national income and domestic expenditure.

This approach was developed by Sydney Alexander.⁵ The analysis can be explained in the following form

$$Y = C + I_d + G + X - M \quad \dots(1)$$

where Y is national income, C is consumption expenditure, I_d total domestic investment, G is autonomous government expenditure, X represents exports and M imports.

The sum of $(C + I_d + G)$ is the total absorption designated as A , and the balance of payments $(X - M)$ is designated as B . Thus Equation (1) becomes

$$\begin{aligned} Y &= A + B \\ B &= Y - A \end{aligned} \quad \text{or} \quad \dots(2)$$

which means that *BOP* on current account is the difference between national income (*Y*) and total absorption (*A*). *BOP* can be improved by either increasing domestic income or reducing the absorption. For this purpose, Alexander advocates devaluation because it acts both ways. *First*, devaluation increases exports and reduces imports, thereby increasing the national income. The additional income so generated will further increase income via the multiplier effect. This will lead to an increase in domestic consumption. Thus the net effect of the increase in national income on the balance of payments is the difference between the total increase in income and the induced increase in absorption, i.e.,

$$\Delta B = \Delta Y - \Delta A \quad \dots$$

$\Delta B = \Delta Y - \Delta A$... (3) Total absorption (ΔA) depends on the marginal propensity to absorb⁶ when there is devaluation. This is expressed as *a*. Devaluation also directly affects absorption through the change in income which we write as *D*. Thus

$$\Delta A = a\Delta Y + \Delta D \quad \dots$$

Substituting equation (4) in (3), we get

$$\begin{aligned} \Delta B &= \Delta Y - a\Delta Y + \Delta D \\ \Delta B &= (1 - a)\Delta Y + \Delta D \end{aligned} \quad \text{or} \quad \dots(5)$$

The equation points toward three factors which explain the effects of devaluation on *BOP*. They are : (i) the marginal propensity to absorb (*a*), (ii) change in income (ΔY), and (iii) change in direct absorption (ΔD). It may be noted that since *a* is the marginal propensity (MP) to absorb, (1 - *a*) is the propensity to hoard or save. These factors, in turn, are influenced by the existence of unemployed or idle resources and fully employed resources in the devaluing country.

1. MP to Absorb. To take the *MP* to absorb, it is less than unity ($a < 1$), with idle resources in the country, devaluation will increase exports and reduce imports. output and income will rise and *BOP* on current account will improve. If, on the other hand, $a > 1$, there will be an adverse effect of devaluation on *BOP*. It means that people are absorbing more or spending more on consumption and investing more. In other words, they are

spending more than the country is producing. In such a situation, devaluation will not increase exports and reduce imports, and *BOP* situation will worsen.

Under conditions of full employment if $a > 1$, the government will have to follow expenditure reducing policy measures along with devaluation whereby the resources of the economy are so reallocated as to increase exports and reduce imports. Ultimately, *BOP* situation will improve.

2. Income Effects. Let us take the income effects of devaluation. If there are idle resources, devaluation increases exports and reduces imports of the devaluing country. With the expansion of export and import-competing industries, income increases. The additional income so generated in the economy will further increase income via the multiplier effect. This will lead to improvement in *BOP* situation. If resources are fully employed in the economy, devaluation cannot correct an adverse *BOP* because national income cannot rise. Rather, prices may increase thereby reducing exports and increasing imports, thereby worsening the *BOP* situation.

5. S. Alexander "Effects of Devaluation on a Trade Balance," *I.M.F. Staff Papers*, April 1952. But it was R.F. Harrod who was the first economist to apply the Keynesian analysis to *BOP* in his *International Trade*.

6. The marginal propensity to absorb (a) is the sum of the marginal propensity to consume and marginal propensity to invest. G has no role as it is autonomous government expenditure.

3. Terms of Trade Effect. The effect of devaluation on national income is also through its effects on the terms of trade. The conditions under which devaluation *worsens* the terms of trade, national income will be *adversely* affected, and *vice versa*. Generally, devaluation worsens the terms of trade because the devaluing country has to export more goods in order to import the same quantity as before. Consequently, the trade balance deteriorates and national income declines. If prices are fixed in buyer's (other country's) currency after devaluation, the terms of trade improve because exports increase and imports decline. The importing country pays more for increased exports of the devaluing country than it receives from its imports. Thus the trade balance of the devaluing country improves and its national income rises.

4. Direct Absorption. Devaluation affects direct absorption in a number of ways. If the devaluing country has idle resources, an expansionary process will start with exports increasing and imports declining. Consequently, income will rise and so will absorption. If the increase in absorption is less than the rise in income, *BOP* will improve. Generally, the effect of devaluation on direct absorption is not significant in a country with idle resources.

If the economy is fully employed and has also a *BOP* deficit, national income cannot be increased by devaluing the currency. So an improvement in *BOP* can be brought about by reduction in direct absorption. Domestic absorption can fall automatically as a result of devaluation due to real cash balance effect, money illusion and income redistribution.

5. Real Cash Balance Effect. When a country devalues its currency, its domestic prices rise. If the money supply remains constant, the real value of cash balances held by the people falls. To replenish their cash balances, people start saving more. This can be possible only by reducing their expenditure or absorption. This is the real cash balance effect of devaluation.

If people hold assets and when devaluation reduces their real cash balances, they sell them. This reduces the prices of assets and increases the interest rate. This, in turn, will reduce investment and consumption, given the constant money supply. As a result, absorption will be reduced. This is the *asset effect* of real cash balance effect of devaluation.

6. Money Illusion Effect. The presence of money illusion also tends to reduce direct absorption. When prices rise due to devaluation, consumers think their real incomes have fallen, even though their money incomes have risen. They have the money illusion under whose influence they reduce their consumption expenditure or direct absorption.

7. Income Re-distribution Effect. Direct absorption falls automatically if devaluation redistributes income in favour of people with high marginal propensity to save and against those with high marginal propensity to consume. If the marginal propensity to consume of workers is higher than those of profit-earners, absorption will be reduced. Further, when money incomes of lower income groups increase with devaluation, they enter the income tax bracket. When they start paying income tax, they reduce their

consumption as compared with higher income groups which are already paying the tax. This leads to reduction in absorption in case of the former. Income redistribution also takes place between *production sectors* after devaluation. Those sectors whose prices rise more than their costs of production earn more profits than the other sectors whose costs rise more than their prices. Thus the effect of devaluation will be to redistribute income in favour of the former sectors.

Devaluation will also redistribute income in favour of sectors producing and selling *traded goods* and against *non-traded goods* sectors. Prices of traded goods rise more than that of non-traded goods. As a result, profits of producers and traders and wages of workers producing traded goods rise more as compared to those engaged in non-traded goods.

8. Expenditure-Reducing Policies. Direct absorption is also reduced if the government adopts expenditure-reducing monetary-fiscal policies which are deflationary. They will make devaluation successful in reducing *BOP* deficit. But they will create unemployment in the country.

Its Criticisms: The absorption approach to *BOP* deficit has been criticised on the following grounds

1. Neglects Price Effects. This approach neglects the price effects of devaluation which are very important.

2. Calculation Difficult. Analytically, it appears to be superior to the elasticity approach but propensities to consume, save and invest cannot be accurately calculated.

3. Ignores Effects on Other Countries. The absorption approach is weak in that it relies too much on policies designed to influence domestic absorption. It does not study the effects of a devaluation on the absorption of other countries.

4. Not Operative in a Fixed Exchange Rate System. The absorption approach fails as a corrective measure of *BOP* deficit under a fixed exchange rate system. When prices rise with devaluation, people reduce their consumption expenditure. With money supply remaining constant, interest rate rises which brings a fall in output alongwith absorption. Thus devaluation will have little effect on *BOP* deficit.

5. More Emphasis on Consumption. This approach places more emphasis on the level of domestic consumption than on relative prices. A mere reduction in the level of domestic consumption for reducing absorption does not mean that resources so released will be redirected for improving *BOP* deficit.

6. THE MONETARY APPROACH

The monetary approach to the balance of payments is an explanation of the overall balance of payments. It explains changes in balance of payments in terms of the demand for and supply of money. According to this approach, “a balance of payments deficit is always and everywhere a monetary phenomenon.” Therefore, it can only be corrected by monetary measures.

Its Assumptions. This approach is based on the following assumptions⁷ :

1. The 'law of one price' holds for identical goods sold in different countries, after allowing for transport costs.
2. There is perfect substitution in consumption in both the product and capital markets which ensures one price for each commodity and a single interest rate across countries.
3. The level of output of a country is assumed exogenously.
4. All countries are assumed to be fully employed where wage price flexibility fixes output at full employment.
5. It is assumed that under fixed exchange rates the sterilisation of currency flows is not possible on account of the law of one price globally.
6. The demand for money is a stock demand and is a stable function of income, prices, wealth and interest rate.
7. The supply of money is a multiple of monetary base which includes domestic credit and the country's foreign exchange reserves.

8. The demand for nominal money balances is a positive function of nominal income.

The Theory. Given these assumptions, the monetary approach can be expressed in the form of the following relationship between the demand for and supply of money :

7. This approach is also called *global monetarism* in the light of 1, 2, 4, 5, and 6 assumptions.

The demand for money (M_d) is a stable function of income (Y), prices (P) and rate of interest (i)

$$M_d = f(Y, P, i) \quad \dots$$

The money supply (M_s) is a multiple of monetary base (m) which consists of domestic money (credit) (D) and country's foreign exchange reserves (R). Ignoring m for simplicity which is a constant,

$$M_s = D + R \quad \dots$$

Since in equilibrium the demand for money equals the money supply,

$$\begin{array}{lcl} M_d & = & M_s \quad \dots(3) \\ \text{or} \quad M_d & = & D + R \quad [\quad M_s = D + R] \quad \dots(4) \end{array}$$

A balance of payments deficit or surplus is represented by changes in the country's foreign exchange reserves. Thus

$$\begin{array}{lcl} \Delta R & = & \Delta M_d - \Delta D \quad \dots(5) \\ \text{or} \quad \Delta R & = & B \quad \dots(6) \end{array}$$

where B represents balance of payments which is equal to the difference between change in the demand for money (ΔM_d) and change in domestic credit (ΔD).

A balance of payments deficit means a *negative* B which reduces R and the money supply. on the other hand, a surplus means a positive B which increases R and the money supply. When $B = 0$, it means *BOP* equilibrium or no disequilibrium of *BOP*.

The automatic adjustment mechanism in the monetary approaches is explained under both the fixed and flexible exchange rate systems.

Under the *fixed exchange rate system*, assume that $M_D = M_S$ so that *BOP* (or *B*) is zero. Now suppose the monetary authority increases domestic money supply, with no change in the demand for money. As a result, $M_S > M_D$ and there is a *BOP* deficit. People who have larger cash balances increase their purchases to buy more foreign goods and securities. This tends to raise their prices and increase imports of goods and foreign assets. This leads to increase in expenditure on both current and capital accounts in *BOP*, thereby creating a *BOP* deficit. To maintain a fixed exchange rate, the monetary authority will have to sell foreign exchange reserves and buy domestic currency. Thus the outflow of foreign exchange reserves means a fall in R and in domestic money supply. This process will continue until $M_S = M_D$ and there will again be *BOP* equilibrium.

on the other hand, if $M_S < M_D$ at the given exchange rate, there will be a *BOP* surplus. consequently, people acquire the domestic currency by selling goods and securities to foreigners. They will also seek to acquire additional money balances by restricting their expenditure relatively to their income. The monetary authority on its part, will buy excess foreign currency in exchange for domestic currency. There will be inflow of foreign exchange reserves and increase in domestic money supply. This process will continue until $M_S = M_D$ and *BOP* equilibrium will again be restored. Thus a *BOP* deficit or surplus is a temporary phenomenon and is self-correcting (or automatic) in the long-run.

This is explained in Fig. 4 In Panel (A) of the figure, M_D is the stable money demand curve and M_S is the money supply curve. The horizontal line m (D) represents the monetary base which is a multiple of domestic credit, D which is also constant. This is the domestic component of money supply that is why the M_S curve starts from point C.

M_S and M_D curves intersect at point E where the country's balance of payments is in equilibrium and its foreign exchange reserves are OR . In Panel (B) of the figure, PDC is the payments disequilibrium curve which is drawn as the vertical difference between M_S and M_D curves of Panel (A).

As such, point B_0 in Panel (B) corresponds to point E in Panel (A) where there is no disequilibrium of balance of payments.

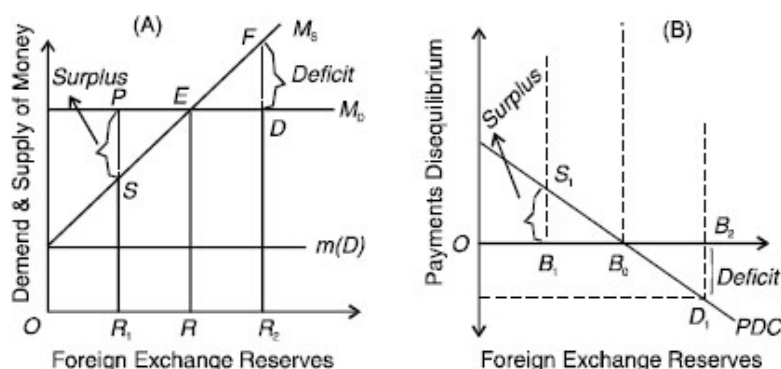


FIG. 4

If $M_S < M_D$ there is *BOP* surplus of SP in Panel (A). It leads to the inflow of foreign exchange reserves which rise from OR_1 to OR and increase the money supply so as to bring *BOP* equilibrium at point E . On the other hand, if $M_S > M_D$, there is deficit in *BOP* equal to DF . There is outflow of foreign exchange reserves which decline from OR_2 to OR and reduce the money supply so as to reestablish *BOP* equilibrium at point E . The same process is illustrated in Panel (B) of the figure where *BOP* disequilibrium is self-correcting or automatic when there is B_1S_1 surplus and B_2D_1 deficit of *BOP*.

Under a system of *flexible* (or *floating*) exchange rates, when $B = 0$, there is no change in foreign exchange reserves (R). But when there is a *BOP* deficit or surplus, changes in the demand for money and exchange rate play a major role in the adjustment process without any inflow or outflow of foreign exchange resources. Suppose the monetary authority increases the money supply ($M_S > M_D$) and there is a *BOP* deficit. People having additional cash balances buy more goods thereby raising prices of domestic and imported goods. There is depreciation of the domestic currency and a rise in the exchange rate. The rise in prices, in turn, increases the demand for money thereby bringing the equality of M_D and M_S without any outflow of foreign exchange reserves. The opposite will happen when $M_D > M_S$, there is fall in prices and appreciation of the domestic currency which automatically eliminates the excess demand for money. The exchange rate falls until $M_D = M_S$ and *BOP* is in equilibrium without any inflow of foreign exchange reserves.

Its Criticisms. The monetary approach to the balance of payments has been criticised on a number of counts:

1. Demand for Money not Stable. Critics do not agree with the assumption of stable demand for money. The demand for money is stable in the long run but not in the short run when it shows less stability.

2. Full Employment not Possible. Similarly, the assumption of full employment is not acceptable because there exists involuntary unemployment in countries.

3. One Price Law Invalid. Frankel and Johnson⁸ are of the view that the law of one price holds for identical goods sold is invalid. This is because when factors of production are drawn into sectors producing non-trading goods, the excess demand for non-traded goods will spill over into reduced supplies of traded goods. This will lead to higher imports, and disturb the law of one price for all traded goods.

4. Market Imperfections. There are also market imperfections which prevent the law of one price from working properly in many markets for traded goods. There may be price differentials due to the lack of information about overseas prices and trade regulations faced by traders.

⁸. L.A. Frankel and H.G. Johnson (eds.), *The Monetary Approach to the Balance of Payments*, 1976.

5. Sterilisation not Possible. The assumption that the sterilisation of currency flows is not possible under fixed exchanged rates, has not been accepted by critics. They argue that “the sterilisation of currency flows is entirely possible if the private sector is willing to adjust the composition of its wealth portfolio with regard to the relative importance of bonds and money balances, or if the public sector is prepared to run a higher budget deficit whenever it has a balance of payments deficit with which to contend.”

6. Link between BOP and Money Supply not Valid. The monetary approach is based upon direct link between *BOP* of a country and its total money supply. This has been questioned by economists. The link between the two depends upon the ability of the monetary authority to neutralise the inflows and outflows of foreign exchange reserves when

there is *BOP* deficit and surplus. This requires some degree of sterilisation of external flows. But this is not possible due to globalisation of financial markets.

7. Neglects short Run. The monetary approach is related to the self correcting long-run equilibrium in *BOP*. This is unrealistic because it fails to describe the short time through which the economy passes to reach the new equilibrium. As pointed out by Prof. Krause, the monetary approach's "concentration on the long-run assumes away all of the problems that make the balance of payments a problem."

8. Neglects Other Factors. This approach neglects all real and structural factors which lead to disequilibrium in *BOP* and concentrates only on domestic credit.

9. Neglects Economic Policy. This approach emphasises the role of domestic credit in bringing *BOP* equilibrium and neglects economic policy measures. According to Prof. Currie, the balance of payments equilibrium can also be "achieved by expenditure-switching policies working through real flows and government budget."

Conclusion. Despite these criticisms, the monetary approach is realistic in that it takes into consideration both domestic money and foreign money. Emphasis is not on relative price changes, but on the extent to which the demand for real money balances will be satisfied from internal sources, through credit creation or from external sources through surplus or deficit in the balance of payments. A balance of payments deficit or surplus can be corrected through changes in money supply and their consequent effects on income and expenditure, or more generally on production and consumption of goods.

EXERCISES

1. Critically discuss the monetary approach to the balance of payments problem.
2. Discuss the alternative automatic adjustment mechanisms for balance of payments. What are their assumptions?
3. Discuss the elasticity approach to the effect of devaluation on balance of payments.

4. Discuss the process of adjustment in the balance of payments through the variations in prices. Explain its limitations.
5. Discuss the role of devaluation in reducing deficits in the balance of payments of a country. State its limitations.
6. Discuss the Marshall-Lerner condition for effective devaluation.
7. Discuss the mechanism of the absorption approach to the balance of payments adjustment. What are its assumptions and limitations?



BALANCE OF PAYMENTS POLICIES : INTERNAL AND EXTERNAL BALANCE

1. INTRODUCTION

In this chapter, policy measures are discussed which every government tries to pursue to correct disequilibrium in the balance of payments. They are : (a) internal balance which refers to full employment with price stability, and (b) the external balance or balance of payments equilibrium. It was Meade who in his *The Balance of Payments*¹ pointed out that to maintain both internal and external balance, a country must control both its aggregate expenditure and the exchange rate. It was, however, Johnson² who pointed towards the range of policy instruments for bringing about both internal and external balance. He called them *expenditure changing* and *expenditure switching* policies. Expenditure changing policies are discussed below.

2. EXPENDITURE CHANGING MONETARY AND FISCAL POLICIES

Expenditure changing policies are intended to change the aggregate expenditure in the economy through appropriate monetary and fiscal policies in order to affect its *BOP* disequilibrium.

To explain these two policies, we use the *IS-LM-BP* technique where the *LM* curve represents monetary policy, the *IS* curve fiscal policy and the *BP* (balance of payments) curve or *EB* (external balance) curve or *EF* (foreign exchange) curve. *The BP curve traces out those combinations of interest rate and national income that produce BOP equilibrium.* An increase in income will increase imports and increase the *BOP* deficit by increasing the current account deficit. On the other hand, an increase in interest rate will attract foreign investments and there will be capital inflow thereby increasing the capital account surplus.

Any point above and to the left of the *BP* curve represents surplus in *BOP*, and a point below and the right of the *BP* curve shows a *BOP* deficit. The way expenditure changing monetary and fiscal policies affect *BOP* disequilibrium are discussed below.

1. J.E. Meade, *The Theory of International Economic Policy*, Vol. I, 1951.

2. H.G. Johnson, *Money, Trade and Economic Growth*, 2/e, 1964.

3. Expenditure Switching Policies are discussed in the last section.

EXPENDITURE CHANGING MONETARY POLICY

An expenditure changing monetary policy affects the economy through changes in money supply and interest rates. A contractionary monetary policy leads to a *BOP* surplus and an expansionary monetary policy to a *BOP* deficit.

Assumptions. The analysis that follows assumes:

(a) There is fixed exchange rate;

(b) There is relative capital mobility; and

(c) There is no change in government expenditures *i.e.*, the *IS* curve remains unchanged.

EXPENDITURE REDUCING MONETARY POLICY

Suppose there is a *BOP* deficit in the country. This implies an excess of expenditure over income. To correct it, the monetary policy reduces the money supply which increases interest rates thereby reducing investment and output. The reduction in investment (expenditure) and output, in turn, reduces income and aggregate demand for imported goods. There is also a reduction in the domestic price level which may lead to switching of expenditure from foreign to domestic goods. Consequently, the country's imports are reduced and exports are increased. Thus the current account trade deficit is reduced. Simultaneously, there is reduced outflow of short-term capital with reduction in imports which cuts down the *BOP* deficit. On the other hand, rise in domestic interest rates increase the inflow of capital, thereby completely eliminating the *BOP* deficit. The adjustment process will be just the opposite of the above when the monetary authority adopts an expansionary monetary policy to correct a *BOP* surplus. Expenditure reducing monetary policy and its effects on *BOP* situation are illustrated in Fig. 1.

Given these assumptions, we begin with a situation where the economy is in complete equilibrium with OR interest rate and OY income level at point E of the intersection of *IS-LM-BP* curves. Suppose the domestic money supply is reduced. This will shift the *LM* curve upward to the left to LM_1 . The new equilibrium is at E_1 . Since E_1 is above and to the left of the *BP* curve, there is *BOP* surplus.

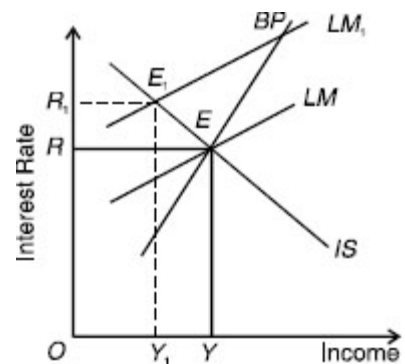


FIG. 1

There is increase in interest rate from OR to OR_1 which generates a capital account surplus with capital inflow. On the other hand, the reduction in income from OY to OY_1 will tend to generate a current account surplus because of the reduction in imports. Thus a *contractionary monetary policy leads to a BOP surplus*. However, E_1 does not represent a permanent equilibrium. The *BOP* surplus will increase the domestic money supply and gradually shift the LM_1

curve to the right towards the LM curve so that E_1 begins to move down along the IS curve to point E when the economy is again in BOP equilibrium.

EXPENDITURE INCREASING MONETARY POLICY

On the other hand, an *expansionary monetary* policy leads to a BOP deficit, as illustrated in Fig. 2. Starting from the complete equilibrium point E in the figure, the monetary authority increases the money supply. This will shift the LM curve downward to the right to LM_2 . The new equilibrium is set at E_2 . Since point E_2 is below and to the right of the BP curve, there is BOP deficit. There is reduction in interest rate from OR to OR_2 which generates a capital account deficit with capital outflow. On the other hand, the increase in income from OY to OY_2 will tend to generate a current account deficit with increase in imports. Thus an *expansionary monetary policy leads to a BOP deficit*. However, E_2 does not represent a permanent equilibrium. The BOP deficit will reduce the domestic money supply and gradually shift the LM_2 curve to the left towards the LM curve so that E_2 begins to move up along the IS curve to point E and the economy is again in BOP equilibrium.

EXPENDITURE CHANGING FISCAL POLICY

By fiscal policy we mean changing government expenditure or/and taxation. An expansionary fiscal policy tends to increase government expenditure or/and reduce taxes. On the other hand, a contractionary fiscal policy relates to cut in government expenditure or/and increase in taxes.

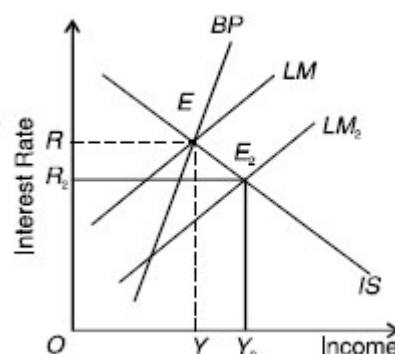


FIG. 2

EXPENDITURE REDUCING FISCAL POLICY

The effects of an expenditure reducing fiscal policy in correcting a *BOP* deficit are illustrated in Figure 3.

Assumptions. This analysis assumes that :

- (a) The exchange rate is fixed.
- (b) There is relative capital mobility.
- (c) There is no change in monetary policy so that the *LM* curve remains unchanged.

Given these assumptions, we start with the equilibrium situation *E* with *OR* interest rate and *OY* income level where *IS-LM-BP* curves intersect in Fig 3. Suppose the government adopts a *contractionary fiscal policy* whereby it reduces its expenditure or/and increases taxes. This shifts the *IS* curve downward to the left to *IS₂* which cuts the *LM* curve at point *E₂*. This point shows fall in interest rate from

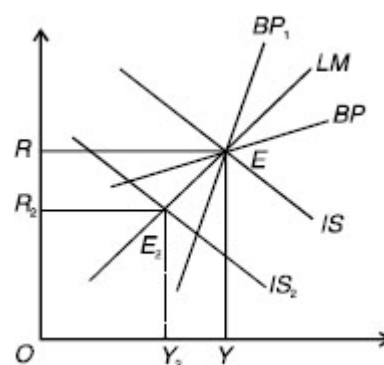


FIG. 3

OR to *OR₂* which leads to an outflow of capital and to capital account deficit. The income level also falls from *OY* to *OY₂* which reduces imports, thereby leading to current account deficit. *Thus the overall effect of a contractionary fiscal policy is to have a BOP deficit* because point *E₂* is below and to the right of the *BP* curve.

However, the effects of a contractionary fiscal policy on *BOP* will depend upon the elasticity of the *BP* curve. In the above case, the *BP* curve is *elastic*. If the *BP* curve is *less elastic* such as the *BP₁* curve in the figure, a contractionary fiscal policy will lead to a *BOP* surplus. This is because point *E₂* is above and to the left of the *BP₁* curve.

EXPENDITURE INCREASING FISCAL POLICY

Take expenditure increasing fiscal policy when the government increases its expenditure or/and reduces taxes. As a result, the IS curve shifts upwards to the left as the IS_1 curve which cuts the LM curve at E_1 , as shown in Figure 4. This new equilibrium shows increase in interest rate from OR_1 and rise in income from OY to OY_1 .

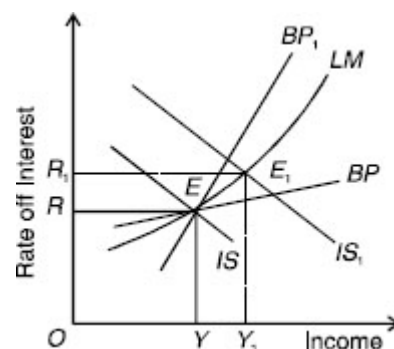


FIG. 4

The increase in interest rate leads to capital inflow thereby creating short-run BOP surplus on capital account. On the other hand, the rise in income increases imports thereby leading to BOP deficit on current account. The net overall effect on the BOP will depend upon the elasticity of the BP curve. If the BP curve is *elastic*, as shown, in the figure, and the equilibrium point E_1 is above and to the left of the curve BP , there will be overall BOP surplus in an *expansionary fiscal policy*. In case the BP curve is *less elastic*, shown as the BP_1 curve in the figure, the equilibrium point E_1 being below and to the right of BP_1 curve, there will be overall BOP deficit.

CONCLUSION

The above analysis shows that a contractionary monetary policy is effective in correcting a BOP deficit. But an expansionary fiscal policy can either improve or worsen a BOP deficit. Thus its effects on the overall BOP are ambiguous. The increase in interest rate creates short-run BOP capital account surplus and the increase in income to a current account deficit. If the former effect predominates an expansionary fiscal policy will bring both the internal and external balance. The same will not be achieved if the latter effect predominates. To solve the BOP deficit problem and to bring both the internal and external balance, policy makers suggest the mixing of both monetary and fiscal policies.

3. MONETARY-FISCAL MIX INTERNAL AND EXTERNAL BALANCE POLICIES

We study below internal and external balance in terms of monetary-fiscal mix policies under fixed and flexible exchange rate with perfect and relative capital mobility and their effects on balance of payments of a country. These are explained as under.

1. FIXED EXCHANGE RATES WITH PERFECT CAPITAL MOBILITY

When capital is perfectly mobile, a small change in the domestic interest rate brings large flows of capital. The balance of payments is said to be in equilibrium when the domestic interest rate equals the world rate. If the domestic interest rate is lower than the world rate, there will be large capital outflows in order to seek better rates abroad which will be self-eliminating. On the contrary, if the domestic interest rate is higher than the world rate, large capital inflows would bid the domestic interest rate down to its initial level.

The policy implication of perfect capital mobility is shown in Figure 5 and 6 where the BP curve is drawn horizontally. E is the initial equilibrium point through which $IS-LM-BP$ curves pass. This is the point where BOP is zero but the economy is not in full employment equilibrium. This point determines the national income level OY and the interest rate OR . The BP curve is drawn horizontally because even the slightest change in the interest rate will lead to an infinitely large capital flow. If the domestic interest rate is above OR , capital flows into the country and if it is below OR , capital flows out of the country.

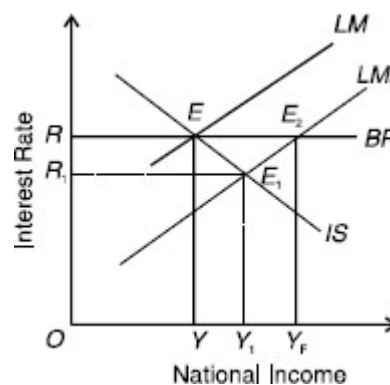
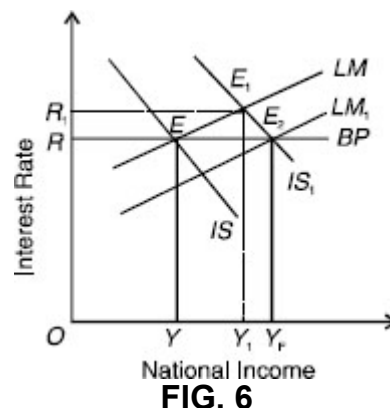


FIG. 5

Suppose OY_F is the full employment income level which the economy wants to attain. The monetary authority starts an *expansionary monetary policy* by increasing the money supply. This shifts the LM curve to LM_1 which intersects the IS curve at E_1 so that the interest rate falls to OR_1 . It, in turn, leads to an outflow of capital. Since the price of foreign exchange is fixed, the monetary authority will finance the outflow of capital by selling foreign exchange. The

sales of foreign exchange will decrease the money supply. As a result, the LM_1 curve shifts upwards to the left to its original position of the LM curve. Thus monetary policy is totally ineffective under fixed exchange rates and perfect international capital mobility in maintaining internal balance. This is because the economy cannot attain the full employment equilibrium point E_2 . A contractionary money supply would also be ineffective.

On the other hand, an *expansionary fiscal policy* has the effect of raising the income level by international capital mobility. This is illustrated in Figure 6. Suppose the government expenditure is increased to achieve full employment level of income OY_F . This shifts the IS curve to the right to IS_1 which intersects the LM curve at E_1 . This causes the interest rate to rise to OR_1 and the income level to fall to OY_1 . The rise in interest rate leads to large inflows of capital from abroad. This increases the money supply with the rise in foreign reserves, thereby shifting the LM curve to the right to LM_1 . Now this curve LM_1 intersects the IS_1 curve at point E_2 where at the fixed exchange rate full employment income level OY_F is reached. Thus fiscal policy by increasing money supply raises aggregate demand, income and employment.

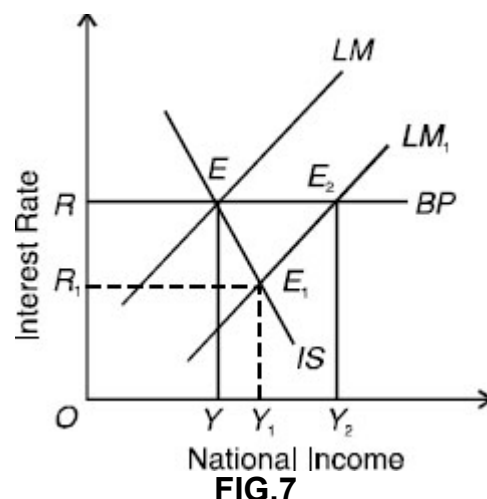


Thus under perfect capital mobility and fixed exchange rates, *fiscal policy is effective* in maintaining internal balance and *monetary policy is impotent*. So far as the external balance is concerned, it is maintained itself because of perfect capital mobility.

2. FLEXIBLE EXCHANGE RATES WITH PERFECT CAPITAL MOBILITY

These conclusions change when there are flexible exchange rates⁴ with perfect capital mobility.

Take an *expansionary monetary policy* which has the effect of lowering the interest rate, increasing capital outflow and thereby bringing deficit in the balance of payments. How this deficit is removed is illustrated in Figure 7. Starting from E an expansionary monetary policy shifts the LM curve to the right to LM_1 curve, given the IS curve. The LM_1 curve intersects the IS curve at E_1 which lowers the interest rate to OR_1 and raises income to OY_1 . These lead to capital outflows and the consequent deficit in the balance of payments and depreciation of the exchange rate. Depreciation increases the demand for domestic goods in the foreign country, thereby increasing output and income. This moves the economy upward along the LM_1 curve till it reaches point E_2 when income rises to OY_2 and the interest rate rises to the old level OR . Equilibrium in the balance of payments is restored at E_2 where the increase in imports through rise in income is offset by surplus in trade balance due to depreciation.



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4. To understand the operation of flexible exchange rates two points are to be noted : (1) When capital outflows, there is depreciation of the currency and when capital inflows, there is appreciation of the currency. (2) Under flexible exchange rate, the demand for foreign exchange equals its supply so that there is neither *BOP* deficit nor surplus. It means that the economy always returns to the original equilibrium position on the BP curve when there are changes in income-interest rate combination and shift in the BP curve.

Take an *expansionary fiscal policy* which shifts the IS curve to IS_1 , given the LM curve in Fig. 8. This brings the economy into equilibrium at E_1 where the IS_1 curve crosses the LM curve with OR_1 interest rate and OY_1 income level. Since point E_1 is above the BP

line, there is surplus in the balance of payments. This surplus leads to the appreciation of the exchange rate which, in turn, reduces the demand for domestic output. This process of appreciation will continue so long as the domestic interest rate is above the world rate and capital inflows continue. Appreciation will continue to reduce the demand for goods and offset the expansionary effect of fiscal policy till the IS_1 curve shifts back to the IS curve and

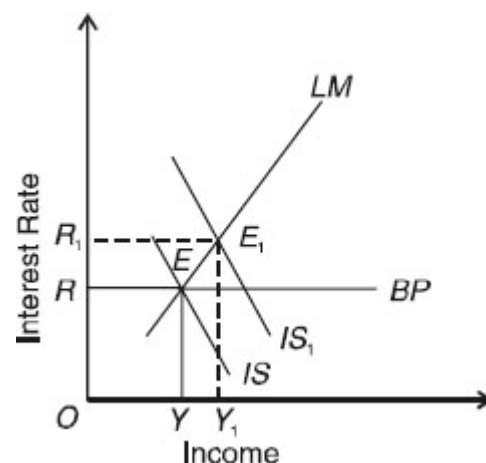


FIG. 8

the equilibrium is re-established at E where the interest rate and the income are back to their original levels of OR and OY . At E the balance of payments is in equilibrium but there is trade deficit due to exchange appreciation which increases the prices of domestic goods for foreigners and reduces the price of imports. Consequently, exports will decline and imports will increase, thereby creating a trade deficit. The equilibrium in the balance of payments is being maintained at E_1 by financing the trade deficit through capital inflows with expansionary fiscal policy. So fiscal policy has no effect on income and employment under perfect capital mobility.

Thus under flexible exchange rate with perfect capital mobility monetary policy is effective in maintaining internal and external balance and fiscal policy is ineffective.

The above analysis under fixed and flexible exchange rates considers monetary and fiscal policy in isolation. However, it is possible for a small country to combine monetary expansion with fiscal expansion in such a manner that it would be effective under fixed and flexible exchange rates. This is because the small country will be unable to change the equilibrium rate of interest OR by its own policies when there is perfect capital mobility. As a result, monetary and fiscal policies are expanded simultaneously in such a manner that the LM curve shifts to the right to LM_1 and the IS curve also shifts to the right to IS_1 so that they intersect at point E_2 , thereby

increasing income to OY_F level but keeping the interest rate intact at OR , as shown in Fig. 6.

3. FIXED EXCHANGE RATES WITH RELATIVE CAPITAL MOBILITY

Consider the effects of monetary and fiscal policies with relative capital mobility under fixed exchange rates. This is illustrated in Figure 9 where the BP curve is steeper than the LM curve. The initial equilibrium is at point E where the curve $IS=LM=BP$ curves with OR interest rate and OY income level. First take an *expansionary fiscal policy* which shifts the IS curve to IS_1 which intersects the LM curve at E_2 .

The interest rate rises from OR to OR_2 and the level of income increases from OY to OY_2 . There will be a deficit in the balance of payments because E_2 is below and to the right of the BP curve. This deficit will bring a decline in the money supply as the monetary authority starts selling foreign exchange. Thus the LM curve shifts upward to the left to LM_1 , where it intersects the IS_1 and BP curves at E_1 . Consequently, the economy is at internal and external balance with OR_1 interest rate and OY_1 income level.

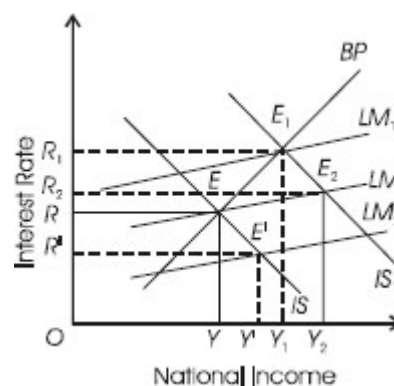


FIG. 9

But under fixed exchange rates with relative capital mobility, an *expansionary monetary policy* will always lead to a deficit in the balance of payments. With this policy, the LM curve shifts to the right to LM_2 , the interest rate will fall from OR to OR' and the income will increase from OY to OY' . The fall in interest rate will lead to a capital account deficit with capital outflow and increase in income to current account deficit with rise in imports. These deficits will force the monetary authority to sell foreign exchange which will reduce the money supply and thus shift the LM_2 curve to its original position of

LM curve. Consequently, the equilibrium position remains at point E with OR interest rate and OY income level. Thus *monetary policy is ineffective*.

However, *fiscal-monetary policy mix* can lead the economy to both internal and external balance. This can be achieved by combining an *expansionary fiscal policy with a restrictive monetary policy*. When an expansionary fiscal policy shifts the IS curve to the right to IS_1 and a restrictive monetary policy shifts the LM curve to the left to LM_1 , both intersect the BP curve at point E_1 in Fig. 9. Thus the economy attains full employment as well as BOP equilibrium with OR_1 interest rate and OY_1 income level which is higher than the original level at point E .

4. FLEXIBLE EXCHANGE RATES WITH RELATIVE CAPITAL MOBILITY

Now consider the effects of monetary and fiscal policy under flexible exchange rates with relative capital movements in terms of Figure 10. First, take the effects of monetary policy with initial equilibrium at point E where the curve $BP=IS=LM$ curves and OR interest rate and OY income level. Suppose the monetary authority follows an *expansionary monetary policy* which shifts the LM curve to the right to LM_1 and intersects the IS curve at

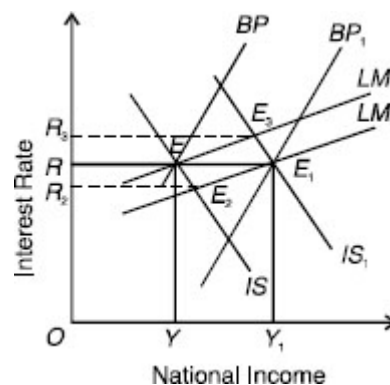


FIG. 10

E_2 in Fig. 10. This leads to short-run BOP deficit because point E_2 is below and to the right of the BP curve. With the fall in interest rate to OR_2 , there is capital outflow. This leads to increase in the demand for foreign currency and the country's exchange rate depreciates. This increases exports and decreases imports. This causes the IS curve to shift to the right to IS_1 . BOP improves so that the curve shifts to the right to BP_1 . The new equilibrium is established at E_1 where the curve $IS_1=LM_1=BP_1$ curves and both external balance and

internal balance are attained at a higher OY_1 income level than OY . Thus *monetary policy is effective* under flexible exchange rates. If an *expansionary fiscal policy* is adopted, there is *BOP* deficit under flexible exchange rates. Starting from the equilibrium point E , with an increase in government expenditure or/and cut in taxes, the IS curve will shift to the right to IS_1 which cuts the LM curve at E_3 . This raises the interest rate to OR_3 . There is capital inflow which causes currency appreciation. This, in turn, raises imports and reduces exports and leads to depreciation of the currency, and the IS_1 curve is shifted back to the IS curve. The original equilibrium point E is reached. Thus *fiscal policy is ineffective* under flexible exchange rates with relative capital mobility. However, an expansionary monetary policy combined with a contractionary fiscal policy under flexible exchange rates and capital movements is effective in attaining internal and external balance.

4. MONETARY AND FISCAL POLICIES FOR ACHIEVING INTERNAL AND EXTERNAL BALANCE SIMULTANEOUSLY

To achieve the objectives of internal and external balance simultaneously, a judicious combination of expenditure-reducing (internal policies) and expenditure-switching (external policies) instrument is needed. For instance, if the economy is already at the full employment level, a policy of devaluation may cause inflation within the economy. So expenditure-switching policy of devaluation must be accompanied by expenditure-reducing policies of tighter fiscal and monetary controls to maintain full employment and balance of payments equilibrium.

In order to attain simultaneously the two targets of internal and external balance, the relationship between policy instruments are discussed in terms of Trevor Swan's⁵ model explained in Figure. 11.

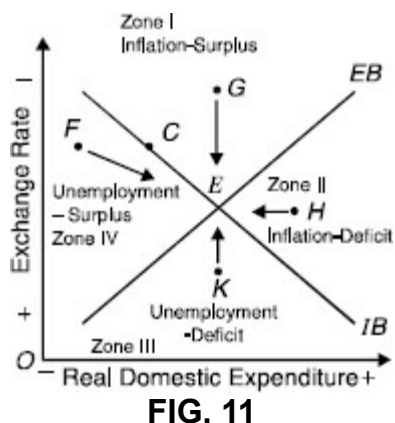
THE SWAN MODEL

The model is based on the assumptions that (1) there are no trade restrictions; (2) there are no capital movements; and (3) terms of trade are given.

In Fig. 11, the horizontal axis measures real domestic expenditure, and the vertical axis the exchange rate. A movement to the left (towards O) on the horizontal axis means the use of expenditure-reducing policy, and a movement upwards along the vertical axis means the use of expenditure-switching policy. *IB* is the internal balance curve which represents a situation of full employment and stable prices. It represents the various combinations of exchange rates and real domestic expenditure. The *IB* curve is negatively sloped which shows that an increase in domestic absorption (real expenditure) must be balanced by a decrease in the exchange rate of the country to reduce its trade balance in order to maintain full employment with price stability. Obviously, *points to the right and above the IB curve relate to inflation or over full employment, and points to the left and below the curve refer to recession or unemployment.*

The *EB* curve represents the external balance where exports equal imports, in the absence of capital movements. So external balance occurs when net exports equal zero. This curve slopes upwards from left to right which shows that for the economy to remain in external balance, devaluation must be balanced by an increase in domestic expenditure (Devaluation will improve the country's trade balance by encouraging exports and discouraging imports, and the increase in real domestic expenditure will increase the country's imports sufficiently).

Obviously, *points above the EB curve refer to a surplus and points below the curve relate to a deficit in the balance of payments.*



The point where the *IB* curve intersects the *EB* curve represents the point of “bliss” where the economy is simultaneously in internal and

external balance. E is such a point in Figure 11 where the exchange rate and real domestic expenditure are in equilibrium. If the economy is not at point E , it is in disequilibrium. According to Swan, "The two curves of internal balance and external balance divide existence into four zones of economic unhappiness." The four zones of disequilibrium are :

Zone I : Inflation and *BOP* surplus.

Zone II : Inflation and *BOP* deficit.

Zone III : Unemployment and *BOP* deficit.

Zone IV : Unemployment and *BOP* surplus.

To explain the type of policy measures which may be required to achieve internal and external balance simultaneously, we take disequilibrium positions in the four zones.

[5.](#) "Long-Run Problems of Balance of Payments," in R.E. Caves and H.G. Johnson, *op. cit.*, Ch. 27.

Take point G in Zone I where a *BOP* surplus is combined with inflation. In this situation, the exchange rate should be appreciated to correct the *BOP* surplus and expenditure be reduced to combat inflation. But reduction in expenditure would increase the *BOP* surplus. This represents the "dilemma zone" because no uniform policy can be adopted.

Similarly, point K in Zone III where unemployment and *BOP* deficit exist require increase in domestic expenditure to reduce unemployment and depreciation of exchange rate to correct *BOP* deficit. But an expansionary fiscal policy increases income and demand, and thus widens *BOP* deficit. This is again the dilemma zone.

Take point H in Zone II where inflation is combined with *BOP* deficit. Inflation should be combated with reduction in domestic expenditure

which would also reduce *BOP* deficit along with depreciation of exchange rate. Ultimately, the economy will move towards the equilibrium position *E*.

Finally, move to point *F* in Zone IV where *BOP* surplus is combined with unemployment. Here appreciation of exchange rate and increase in domestic expenditure will move the economy towards internal and external balance at *E*. Zones II and IV are “simple zones”.

Conclusion. The above discussion reveals that if the economy is on neither the *IB* curve nor the *EB* curve, it is in one of the four zones. When the economy follows expenditure changing monetary and fiscal policies simultaneously in dilemma Zones I and III to achieve internal balance (one target), it moves away from external balance (the other target). To solve this dilemma, Tinbergen developed the rule known as the *Tinbergen Principle* which leads to the assignment problem. The solution to this problem has been suggested by Mundell which we discuss below in detail.

5. THE ASSIGNMENT PROBLEM : THE MUNDELLIAN MODEL OF MONETARY-FISCAL POLICIES FOR INTERNAL AND EXTERNAL BALANCE

THE ASSIGNMENT PROBLEM

The theory of economic policy has concentrated on two distinct problems. *First*, the relation between the number of policy objectives and the number of policy instruments; and *second*, the assignment of policy instruments to the realisation of targets.

Jan Tinbergen⁶ was the first economist to lay down that the number of policy instruments must be equal to the number of objectives. If there are more objectives than policy instruments it means that there are not enough tools to achieve the policy objectives. The system is undetermined. On the other hand, if the number of policy instruments

is more than the number of objectives, then there is not one combination of tools and objectives that will solve the problem, but any number. The system is over-determined. Thus the number of policy tools must equal the number of targets for economic policy to be successful. This has come to be known as the *Tinbergen Principle* or the fixed targets approach.

In order to achieve given objectives with the same number of policy instruments, the second problem of the assignment of instruments to targets arises. The formulation of the assignments problem will eventually lead to equilibrium values of the objectives, despite lack of co-ordination between them. Thus the assignment problem relates to the assignment of instruments to targets. The solution to the assignment problem has been suggested by Robert Mundell by the *Principle of Effective Market Classification*.⁷

THE MUNDELLIAN MODEL

Mundell discusses the case of relationship between two instruments and two targets. The two instruments are monetary policy represented by interest rate and fiscal policy represented by government expenditure. The two objectives or targets are full employment (internal balance) and balance of payments equilibrium (external balance). The *assignment rule is to assign monetary policy to the objective of external balance and fiscal policy to internal balance*.

ASSUMPTIONS

The Mundellian model is based on the following assumptions:

1. Monetary policy is related to changes in interest rate.
2. Fiscal policy is related to deficit or surplus budget.
3. Exports are exogeneously given.
4. Imports are a positive function of income.

5. International capital movements respond to domestic interest rate changes.

THE MODEL

Given these assumptions, Mundell states that “in countries where employment and balance of payments policies are restricted to monetary and fiscal instruments, monetary policy should be reserved for attaining the desired level of the balance of payments, and fiscal policy for preserving internal stability under the conditions assumed here.” If monetary and fiscal policies are adjusted smoothly and continuously without long time lags, the assignment rule can work very well. In some cases, it leads straight to the target, while in others it may worsen the other problems temporarily. But ultimately it will achieve the target. This is Mundell’s principle of effective use of monetary and fiscal policy for internal and external stability, according to which an instrument should be matched with the target on which it exerts the greatest relative influence. He calls it the *Principle of Effective Market Classification*.

In Mundell’s slightly modified Figure 12, the horizontal axis measures interest rate (monetary policy) and the vertical axis budget surplus (fiscal policy). *IB* is the internal balance line and *EB* the external balance line. The *IB* line represents full employment. It is negatively sloped because a reduction in budget surplus* must be balanced by an increase in interest rate** in order to maintain full employment. There is inflation below this line *IB* (Zone III and IV), and recession above it (Zone I and II). On the other hand, line *EB* gives all points of equilibrium in the balance of payments. It is also negatively sloped because a reduction in the budget surplus must be counteracted by increase in interest rate. There is deficit in the balance of payments below this line (Zone I and IV), and surplus above this line (Zone II and III). The *EB* line is steeper than the *IB* line because an increase in interest rate in order to balance an expansionary fiscal policy (increase in budget deficit or reduction in budget surplus) induces a short-term capital inflow for an external balance. The more responsive capital movements are to interest rate changes, the

steeper is the *EB* line relative to the *IB* line. This makes monetary policy relatively more effective for maintaining external balance.

6. J. Tinbergen, *On the Theory of Economic Policy*, 1952.

7. R.A. Mundell, "The Appropriate Use of Fiscal and Monetary Policy for Internal and External Stability," *I.M.F. Staff Papers*, 1962. *International Economics*, 1968.

*Reduction in budget surplus means increase in government expenditure. It is contractionary fiscal policy.

**Increase in interest rate implies reduction in the money supply. It is contractionary monetary policy.

Figure 12 illustrates external and internal balance and the role played by monetary and fiscal policy in maintaining equilibrium between the two at point *E* with *OR* interest rate and *OS* budget surplus. The two policy measures will take the economy to the equilibrium point *E* in inflation-deficit and recession-surplus situations. But there are policy conflicts in inflation-surplus (Zone III) and recession-deficit (Zone I). Suppose the economy is at point *A* in Zone IV where there is full employment within the economy and deficit in the balance of payments. To remove balance of payments deficit, the *monetary authority* acts first by increasing the interest rate by *AB* in order to reduce the money supply. The reduction in money supply will reduce demand for goods and this will, in turn, decrease imports, and restore equilibrium in the balance of payments at *B*. But here the economy is having recession and unemployment. To correct these and to have internal balance, budget surplus will have to be reduced by *BC*. But at *C*, there is again deficit in the balance of payments which necessitates further increase in interest rate by *CD* for reducing the money supply. At *D* the internal balance is again disturbed leading to a further reduction in budget surplus. This process of reduction in money supply followed by reduction in budget surplus will ultimately lead the economy to the equilibrium point *E* where there is simultaneous internal and external balance.

Thus the use of monetary policy for external balance and fiscal policy for internal balance will lead to equilibrium in Zones II and IV.

On the other hand, if *budget surplus is used to remedy the deficit in balance of payments and monetary policy to correct recession and unemployment, there would be neither external balance nor internal balance*. Starting from point A, an increase in budget surplus would move the economy to K where the external balance is achieved but there is recession and unemployment in the economy. To remedy it, the interest rate is reduced by

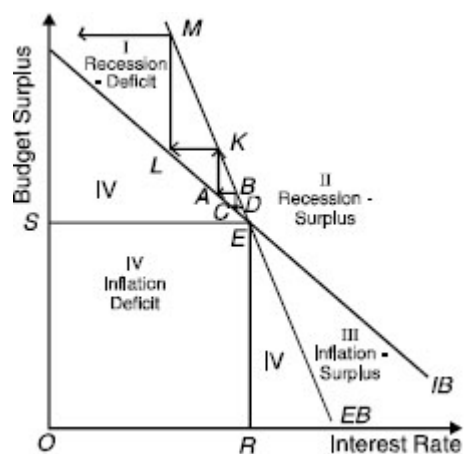


FIG. 12

KL for increasing the money supply. But at L deficit in the balance of payments rises over its previous level. This will require a still greater budget surplus by LM. This will necessitate still larger reduction in interest rate to remove recession and unemployment. In this way, the economy would move further and further away from point E and there would not be simultaneous internal and external balance in Zone I. In this case, the assignment rule leads to explosive instability because the two policies are badly coordinated. Similar will be the case in Zone III.

Thus monetary policy should be assigned to the objective of external balance and fiscal policy to that of internal balance. However, the assignment rule can work only if monetary and fiscal policy can be adjusted smoothly and continuously without long lags before their effects are visible. This is Mundell's *Principle of Effective Market Classification*.

In fact, Mundell argues for a judicious monetary and fiscal-policy mix. Both objectives will be realised, when monetary policy is paired with the objective of external balance and fiscal policy with the objective of internal balance.

CRITICISMS OF MUNDELL'S MODEL

There are several shortcomings of Mundell's analysis.

1. Unrealistic Assumptions. This model assumes that the authorities know about the *IB* and *EB* curves, the zone in which the economy is operating, and the extent to which the economy is away from both internal and external balance so that appropriate monetary and fiscal policy can be applied. It also presupposes that they know the quantitative results which are expected from the application of each policy. But it is not possible to accurately estimate the degree of disequilibrium due to lack of data about them. Accordingly, the policy changes may not be appropriate to the type of disequilibrium.

2. Ignores Stagflation. This analysis overlooks the situation of unemployment and inflation. This is unrealistic because this phenomenon, known as stagflation, is found in almost all developed countries.

3. Neglects Other Factors. This analysis considers only differences in interest rates as the cause of capital movements and neglects other factors such as exchange rate variations. Moreover, it is not possible that a persistent deficit may be financed by means of capital movements.

4. Practical Constraints. Monetary and fiscal policies operate under certain practical constraints. Due to political reasons, some governments are unable to follow a restrictive fiscal policy and a monetary policy of high interest rates. Even if such policies can be started, they may not be successful because capital flows may not be interest-sensitive.

5. Cannot Correct Current Account Deficit. The prescribed policy mix may be unable to correct a current account deficit. Since the policy mix affects both the capital flows and imports, it can only ensure that a negative trade balance is offset by a positive capital flow, and vice versa.

6. Not a True Adjustment Mechanism. The monetary-fiscal mix is not a true adjustment mechanism. It is just a palliative. It does not

adjust the balance of payments but simply stabilises it. Capital flows only fill the gap between autonomous demand and supply of foreign exchange, leaving prices and incomes unchanged.

7. Debt-Servicing Requirements not Considered. This analysis does not take into account the debt-servicing requirements that a continuous capital inflow would have on the current account of the balance of payments when the domestic interest rate is raised.

8. Retards Capital Formation. When the interest rate is raised through monetary policy, it will lead to a decrease in investment at home. This must be accompanied either by an increase in government expenditure or by tax reductions or by a combination of both. Such a monetary-fiscal mix wastes the economy's savings by diverting them into debt-financed government expenditure which retards capital formation. According to Johnson, this raises the problem of "inefficiency versus efficiency in the use of domestic saving potential."

9. Conflicting Policies. There is the possibility of conflicts between the prescribed policy mixes among governments of different countries. According to Johnson, it is a difficult and highly complicated process to arrive at the right combination of monetary and fiscal policies in all countries simultaneously. If, however, such a combination is worked out by trial and error, it may lead away from rather than toward equilibrium.

10. Long Time Lags. The model assumes that there are no long time lags for the operation of monetary-fiscal policies. But both monetary and fiscal lags are quite long and they retard the process of simultaneous equilibrium of internal and external balance.

6. EXPENDITURE SWITCHING POLICIES

Expenditure switching policies refer to devaluation or revaluation of a country's currency in order to switch its expenditure from foreign to domestic goods or vice versa. They aim at correcting *BOP*

disequilibrium. But Johnson distinguishes between two types of expenditure switching policies. The *first* is devaluation, and the *second* is the use of *direct controls* to restrict imports and to correct *BOP* deficit. We shall follow Johnson in explaining expenditure switching policies. Thus expenditure switching policies aim at increasing the demand for domestic goods and to switch expenditure from imported to domestic goods. Expenditure switching policies aim at maintaining external balance.

1. DEVALUATION⁹

Devaluation is referred to as expenditure switching policy because it switches expenditure from imported to domestic goods and services. Devaluation means a reduction in the external value of a currency in terms of other currencies. But there is no change in the internal purchasing power of the country. Thus when a country with *BOP* deficit devalues its currency, the domestic price of its imports increases and the foreign price of its exports falls. This makes its exports cheaper and imports dearer. Now the foreigners can buy more goods by paying less money than before devaluation. This encourages exports. This causes expenditures to be switched from foreign to domestic goods as the country's exports increase and the country produces more to meet the domestic and foreign demand for goods. On the other hand, with imports becoming dearer than before, they decline. Thus with the rise in exports and fall in imports, *BOP* deficit is corrected.

⁹Detailed study of devaluation has been done in a separate chapter.

Assumptions. This analysis is based on the following assumptions :

1. The elasticity of demand for exports and imports is elastic.
2. The supply of exports is sufficient to meet the increased demand for exports after devaluation.
3. The internal price level remains constant after devaluation.

4. The other country does not devalue its currency simultaneously.
5. The other country does not adopt such counter-devaluation measures as levying tariff duties on the exports of the devaluing country.

EXPLANATION

Give these assumptions, the effects of devaluation on *BOP* deficit of a country are explained in terms of Figure 13.

In order to assess the true effect of devaluation on *BOP* deficit, it is advisable to study price movements in exports and imports in the same currency. Figure 13 (A) and (B) illustrates these effects of devaluation on exports and imports respectively where D_x and S_x are the demand and supply curves of exports and D_m and S_m are the demand and supply curves of imports. Suppose the British pound (£) is devalued in relation to the U.S. dollar (\$) and the price movements before and after devaluation are taken in pound. Both the demand and supply curves of exports and imports are taken as elastic. *First*, take exports and Panel (A) of the figure. Before devaluation, Britain exports OX quantity at OP_x price to the U.S. Devaluation of pound has no effect on the supply of exports in pound. Therefore, the supply curve of exports S_x does not change. But to the U.S. consumers of British goods, devaluation of pound means cheaper goods than before. Consequently, the demand for exports increases and the demand curve for export D_x shifts to the right to D_{x_1} . The pre-devaluation price of OX exports is OP_x . After devaluation of the pound, the export price rises to OP_{x_1} and the volume of exports increases to OX_1 .

Now take the effect of devaluation on imports. Before devaluation, Britain imports OM_1 quantity at OP_m price from the U.S. With devaluation, imports become dearer in pound and their volume is reduced than before devaluation. Therefore, the supply curve of imports S_m shifts to S_{m_1} in Panel (B) of the figure. But the demand

curve for imports Dm being elastic, the increase in the price of imports from OPm to OPm_1 reduces the quantity bought from OM_1 to OM .

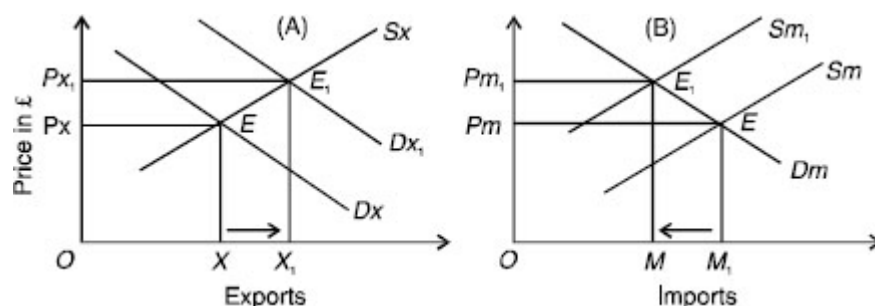


FIG. 13

Thus by increasing exports by XX_1 and decreasing imports by M_1M , devaluation in terms of the currency of the devaluing country brings equilibrium in the balance of payments.

Limitations. The following are the limitations of devaluation as a measure to correct *BOP* deficit of a country:

1. Less Elastic Demand. The above analysis assumes an elastic demand for exports and imports. In reality, the demand for export and imports is never more than unity. Rather, it is always less than unity. As a result, the effect of devaluation on *BOP* will be unfavourable.

2. Supply Shortages. It also assumes an adequate supply of exports to meet the increased demand for exports after devaluation. But it is not possible for a devaluing country to increase the supply of exports due to the scarcity of domestic raw materials, lack of incentives to manufacturers and exporters of exportable goods, reduction in export duties, etc.

3. Price Rise. It is further assumed that the internal price level in the devaluing country remains constant. This is unrealistic because when the demand for exports increases, there is a shortage of such goods in the domestic market which raises their prices. Similarly,

with devaluation, prices of imported goods increase. Thus, the rise in the prices of goods nullify the favourable effects of devaluation.

4. Other Countries Devalue. It is presumed that other country does not devalue its currency. But there is every likelihood that the other country, whose exports are adversely affected may retaliate and devalue its currency. Consequently, the favourable effects of devaluation will be neutralised.

5. Counter-Devaluation Measures. If other countries adopt trade restriction measures like raising of tariff duties and other direct controls, devaluation will fail to reduce *BOP* deficit.

Despite these limitations, devaluation is regarded as a potent device to control *BOP* deficit by countries.

2. DIRECT CONTROL

The second type of expenditure switching policy is the use of direct controls to restrict imports of goods in order to correct a *BOP* deficit. Such a policy increases domestic output for export and encourages production of import substitute goods. This policy encourages consumers to purchase domestic substitutes and domestic producers to produce import substitutes. To induce producers to switch their expenditures to exportable goods, the government may give them production and export subsidies. It may also restrict import of undesirable or unimportant items by levying heavy import duties, fixation of quotas, etc. At the same time, it may allow imports of essential goods duty free or at lower import duties, or fix liberal import quotas for them. For instance, the government may allow free entry of capital goods, but impose heavy import duties on luxuries. Import quotas are also fixed and the importers are required to take licenses from the authorities in order to import certain essential commodities in fixed quantities. In these ways, imports are reduced in order to correct an adverse balance of payments. Johnson calls them *commercial controls* which operate on the goods side of transactions by preventing people from buying certain goods or

forcing them to buy others, or providing financial incentives like tariff subsidies, etc. for certain kinds of sales or purchases.¹⁰

The government also adopts *financial controls* to reduce a *BOP* deficit. They “operate through control over the use of money, by restricting the freedom of the use of domestic money either through regulation of certain uses (as in the case of multiple exchange rates) or by making some uses of money more expensive than others.”¹¹ These are stringent exchange control¹² measures. Exchange controls have a dual purpose. They restrict imports and regulate foreign exchange. They may include full control over all foreign exchange receipts and payments by the monetary authority. Foreign currencies are required to be surrendered to exchange control authorities. There may be restrictions on sale and purchase of foreign currencies and securities; on direct investments abroad on short-term speculative capital outflows; on royalties, interest and amortisation payments to foreigners on foreign travels, on tourist expenditure abroad, etc. The government may also resort to multiple exchange rates. It may use a lower exchange rate for essential imports such as raw materials, machinery, etc., and a higher exchange rate for non-essential items.

Thus direct controls, both commercial and financial, by reducing imports and regulating foreign exchange for the needs of the economy help in correcting an adverse *BOP*.

¹⁰ H.G. Johnson, *op. cit.*, p. 25.

¹¹ *Ibid.*

¹² For a detailed study of exchange controls, refer to the separate chapter.

Limitations. But direct controls involve large social costs. They lead to welfare losses when people are prevented from using foreign exchange and import goods. They also involve large administrative costs. There is also wastage of resources when people try to evade the exchange controls and apply for foreign exchange licenses which are auctioned. There may also be retaliation from other countries

which may offset its benefits, if any. Moreover, direct controls deal with *BOP* disequilibrium by suppressing the deficit that is a symptom, and not the basic trouble. When the deficit is due to capital flight, suppressing the deficit does not cure the underlying cause. Direct controls deal with only the deficit and fail to come to grips with the basic cause.¹³ Thus direct controls offer temporary rather than a permanent solution to a *BOP* deficit. That is why the majority of countries favour a liberal trade regime where monetary-fiscal measures are considered better than direct controls in correcting a *BOP* deficit. Despite its limitations, even devaluation is considered better than direct controls.

EXERCISES

1. Indicate the way and the extent to which monetary and fiscal instruments could be successfully used to bring about internal and external balance.
2. What policy instruments would you suggest for maintaining both internal and external equilibrium?
3. Explain internal and external balance in terms of *IS-LM-BP* technique.
4. Discuss the *IS-LM-FE* model of simultaneous determination of internal and external balance.
5. Explain how internal and external balance could be achieved in the presence of capital movements.
6. Distinguish between expenditure switching and expenditure changing policies for balance of payments adjustment. Discuss the effectiveness of devaluation in correcting a balance of payments deficit.
7. Discuss the various types of direct controls with which a balance of payments disequilibrium can be corrected.

8. Discuss the role of devaluation in reducing a deficit in the balance of payments of a country. State its limitations.
9. Critically examine the role of expenditure reducing policies in correcting a deficit in balance of payments.
10. What do you mean by the Assignment Problem? How has it been solved by the Mundellian model? Explain critically.

[13.](#) P.T. Ellsworth and J.C. Leith, The International Economy, 1975.



INCOME ADJUSTMENT : FOREIGN TRADE MULTIPLIER

1. WORKING OF FOREIGN TRADE MULTIPLIER

The foreign trade multiplier, also known as the export multiplier, operates like the investment multiplier of Keynes. It may be defined as *the amount by which the national income of a country will be raised by a unit increase in domestic investment on exports.*

As exports increase, there is an increase in the income of all persons associated with export industries. These, in turn, create demand for goods. But this is dependent upon their marginal propensity to save (MPS) and the marginal propensity to import (MPM). The smaller these two marginal propensities are, the larger will be the value of the multiplier, and vice versa. The foreign trade multiplier process can be explained like this. Suppose the exports of the country increase. To begin with, the exporters will sell their products to foreign countries and receive more income. In order to meet the foreign demand, they will engage more factors of production to produce more. This will raise the income of the owners of factors of production. This process will continue and the national income increases by the value of the multiplier. The value of the multiplier depends on the value of MPS and MPM, there being an inverse relation between the two propensities and the export multiplier.

The foreign trade multiplier can be derived algebraically as follows : The national income identity in an open economy is

$$Y = C + I + X - M$$

where Y is national income, C is national consumption, I is total investment, X is exports and M is imports.

The above relationship can be solved as:

$$\begin{aligned} Y - C &= I + X - M \\ \text{or } S &= I + X - M & (S = Y - C) \\ S + M &= I + X \end{aligned}$$

Thus at equilibrium levels of income the sum of savings and imports ($S + M$) must equal the sum of investment and export ($I + X$).

in an open economy the investment (I) component is divided into domestic investment (I_d) and foreign investment (I_f)

$$\begin{aligned} I &= S \\ I_d + I_f &= S \end{aligned}$$

Foreign investment (I_f) is the difference between exports and imports of goods and services.

$$I_f = X - M \quad \dots(2)$$

Substituting (2) into (1), we have

$$\begin{aligned} I_d + X - M &= S \\ \text{or } I_d + X &= S + M \end{aligned}$$

which is the equilibrium condition of national income in an open economy. The foreign trade multiplier coefficient (K_f) is equal to

$$K_f = \frac{DX}{DY}$$

and
Dividing both sides by DY , we get

$$\frac{DX}{DY} = \frac{DS + DM}{DY}$$

or

$$\frac{DX}{DY} = \frac{DS}{DY} + \frac{DM}{DY}$$

or

$$K_f = \frac{DS}{DY} + \frac{DM}{DY}$$

\

$$K_f = \frac{DS}{DY} + \frac{DM}{DY}$$

(Dividing by DY)

Hence

$$K_f = \frac{DS}{DY} + \frac{DM}{DY}$$

Let us understand it with the help of an example.
Suppose $MPS = 0.3$, $MPM = 0.2$ and DX (increase in exports) = Rs. 1000 crores, we get

$$K_f = \frac{DX}{DY} = \frac{1000}{500} = 2$$

or

$$DY = \frac{DX}{K_f} = \frac{1000}{0.5} = Rs. 2000 \text{ crores}$$

It shows that an increase in exports by Rs. 1000 crores has raised national income through foreign trade multiplier by Rs. 2000 crores, given the values of MPS and MPM.

ITS ASSUMPTIONS

The foreign trade multiplier is based on the following assumptions :

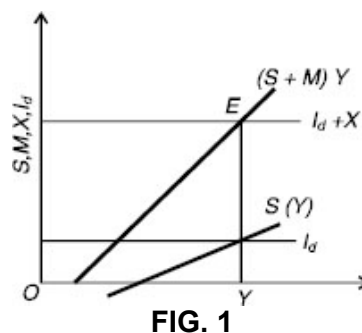
1. There is full employment in the domestic economy.
2. There is direct link between the domestic and the foreign country in exporting and importing goods.
3. The country is small with no foreign repercussion effects.
4. It is on a fixed exchange rate system.

5. The multiplier is based on instantaneous process without time lags.
6. There is no accelerator.
7. There are no tariff barriers and exchange controls.
8. Domestic investment (I_d) remains constant.
9. Government expenditure is constant.

DIAGRAMMATIC EXPLANATION

Given these assumptions, the equilibrium level in the economy is shown in Figure 1, where $S(Y)$ is the saving function and $(S + M)Y$ is the saving plus import function. I_d represents domestic investment and $I_d + X$ the exports plus domestic investment. The $(S + M)Y$ and $I_d + X$ functions determine the equilibrium level of national income OY at point E , where savings equal domestic investment and exports equal imports.

If there is a shift in the $I_d + X$ function due to an increase in exports, the national income will increase from OY to OY_1 , as shown in Figure 2. This increase in income is due to the multiplier effect i.e. $DY = K_f DX$. The exports will exceed imports by sd , the amount by which savings will exceed domestic investment. The new equilibrium level of income will be OY_1 . It is a case of positive foreign investment. If



there is a fall in exports, the export function will shift downward to $I_d + X_1$, as shown in Figure 3. In this case imports would exceed exports and domestic investment would exceed savings by ds . The level of national income is reduced from OY to OY_1 . This is the reverse operation of the foreign trade multiplier.

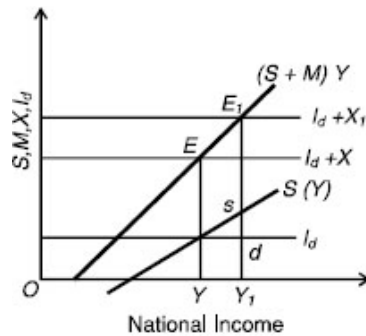


FIG. 2

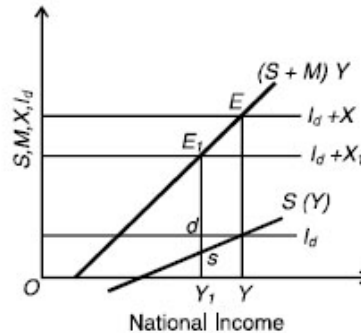


FIG. 3

FOREIGN REPERCUSSION OR BACKWASH EFFECT

The above analysis of the simple foreign trade multiplier has been studied in the case of one small country. But, in reality, countries are linked to each other indirectly also. A country's exports or imports affect the national income of the other country which, in turn, affects the foreign trade and national income of the first country. This is known as the *Foreign Repercussion* or *Backwash* or *Feedback Effect*. The smaller the country is in relation to other trading partner, the negligible is the foreign repercussion. But the foreign repercussion will be high in the case of a large country because a change in the national income of such a country will have significant foreign repercussions or backwash effects.

Assuming two large countries A and B where A's imports are B's exports and vice versa. An increase in A's domestic investment will cause a multiplier increase in its income. This will increase its imports. This increase in A's imports will be increase in B's exports which will increase income in B through B's foreign trade multiplier. Now the increase in B's income will bring an increase in its imports from country A which will induce a second round increase in A's income, and so on. This is explained in Table 1. When autonomous domestic investment (I_d) increases in country A, its national income increases (+ Y). It induces country A to import more from country B. This increases the demand for country B's exports ($X +$). Consequently, the national income in country B increases ($Y +$). Now this country imports more ($M +$) from country A. As the demand for country A's exports increases ($+ X$), its national income ($+ Y$) increases further and this country imports more ($+ M$) from B country. This process will continue in smaller rounds. These are the foreign repercussions or the backwash effects for country A which will peter out and dampen the effects of increase in the

Table 1

Country A	Country B
+ I_d	
+ Y	X +
+ M	Y +
	M +
+ X	X +
+ Y	Y +
+ M	M +
:	:
and so on	

original autonomous domestic investment (I_d) in country A. The formula of foreign trade multiplier with foreign repercussions¹ for country A is

$$K_f = \frac{1}{1 - c_d - c_f}$$

The stages of foreign repercussions shown in the above table are explained in Figure 4 Panel I, II and III. In stage I, domestic investment in country A increases from I_d to I_{d1} in Panel I. This leads to an upward shift in the $I_d + X$ curve to $I_{d1} + X$. As a result, the new equilibrium point is at E_1 which shows an increase in the national income from OY to OY_1 . As the national income increases, the demand for imports from country B also increases. This means increase in the exports of country B. This is shown in Panel II when the $I_d + X$ schedule of country B shifts upwards as $I_d + X_1$. Consequently, the national income in country B increases from OY_0 to OY' at the higher equilibrium level E' . As country B's income increases, its demand for imports from country A also increases. This, in turn, leads to the backwash effect in the form of increase in the demand for exports of country A. This is shown in Panel III where the $I_{d1} + X$ curve (of Panel I) further shifts upwards to $I_{d1} + X_1$ and consequently the national income increases further from OY_1 to OY_2 .

¹. For students interested in working out the formula may consult Bo Sodersten and G. Reed, *op. cit.*, pp. 544-46.

This shows how the foreign repercussions in one country affect its own national income and that of the other country which, in turn, again affects its own national income through the backwash effects with greater force.

IMPLICATIONS OF FOREIGN REPERCUSSION

The following are the implications of foreign repercussion effects.

1. The foreign repercussion effects suggest a mechanism for the transmission of income disturbances between trading countries. If a country is small, it will be affected by change in income of other countries, that will alter the demand for its exports. But it will not be able to transmit its own income disturbances to the latter. If a country is large, it may transmit its own income disturbances to other countries and, in turn, be affected by income disturbances in them. It implies that a boom or slump in one country has repercussion on the incomes of other countries. Thus swings in business

cycles are likely to be internationally contagious, as happened in the 1930s.

2. The repercussion effects also suggest that since the backwash effects ultimately peter out, automatic income changes cannot eliminate completely the current account BoP deficit or surplus produced by an automatic disturbance.

3. The policy implications of the backwash effects suggest that export promotion policies raise national income in the trading partners at a lower rate than by an increase in domestic investment. The export promotion measures raise rational income via the simple foreign trade multiplier, whereas increase in domestic investment policies raise national income many times in multiplier rounds via the repercussion effects.

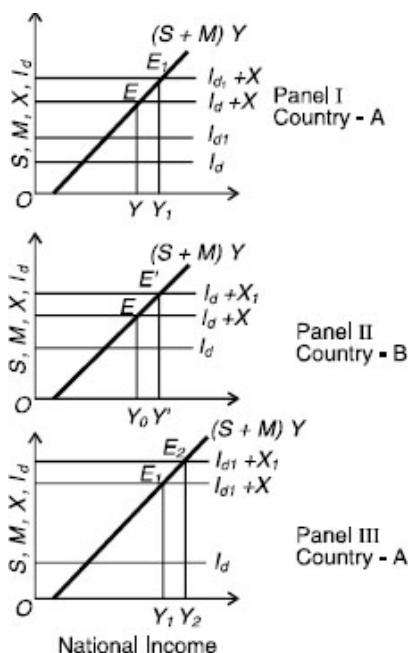


FIG. 4

CRITICISMS OF FOREIGN TRADE MULTIPLIER

The two models of the foreign trade multiplier presented above are based on certain assumptions which make the analysis unrealistic.

1. Exports and Investment not Independent. The analysis of simple foreign trade multiplier is based on the assumption that exports and investment (both domestic and foreign) are independent of changes in the level of national income. But, in reality, this is not so. A rise in exports does not always lead to increase in national income. on the contrary, certain imports, of say capital goods, have the effect of increasing the national income.

2. Lagless Analysis. The foreign trade multiplier is assumed to be an instantaneous process whereby it supplies the final results. Thus it involves no lags and is unrealistic.

3. Full Employment not Realistic. The analysis is based on the assumption of a fully employed economy. But there is less than full employment in every economy. Thus the foreign trade multiplier does not find clear expression in an economy with less than full employment.

4. Not Applicable to More than two Countries. The whole analysis is applicable to a two-country model. If there are more than two countries, it

becomes complicated to analyse and interpret the foreign repercussions of this theory.

5. Neglects Trade Restrictions. The foreign trade multiplier assumes that there are no tariff barriers and exchange controls. In reality, such trade restrictions exist which restrict the operations of the foreign trade multiplier.

6. Neglects Monetary-Fiscal Measures. This analysis is based on the unrealistic assumption that the government expenditure is constant. But governments always interfere through monetary and fiscal policies which affect exports, imports and national income.

Despite these shortcomings, the foreign trade multiplier is a powerful tool of economic analysis which helps in formulating policy measures.

APPLICATION OF FOREIGN TRADE MULTIPLIER TO UNDER-DEVELOPED COUNTRIES (UDCS)

The foreign trade multiplier has important implications for uDCs. The value of this multiplier helps in implementing various policies. It is particularly important in those economies where the contribution of foreign trade in national income is high.

1. Basis for Export promotion policies. The foreign trade multiplier supports export related policies in uDCs. It is through the export multiplier that a country can increase its national income many times. But it does not mean that imports should be reduced to increase exports. Prof. Lewis opines in this context that to make the export sector leading and developed, it is essential to adopt the policy of import substitution. In this way, both the sectors are complementary to each other.¹

2. Improvement in Balance of Payments. UDCs are always faced with the BOP deficit. Under such a situation, the current account BOP can be improved by increasing exports. Moreover, by increasing domestic investment, UDCs can benefit through the repercussion or backwash effects.

3. Incentive for Domestic Industries. By providing incentives to domestic industries for exports, the government can increase income by multiplier times through the export multiplier.

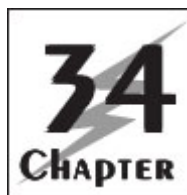
4. Encouragement to Foreign Investment. Mostly goods are imported from abroad in UDCs. To cut down imports and manufacture import substitution

goods, the governments of such countries encourage foreign investment. Foreign investors set up import substitution industries in UDCs which are also exported in the long run. Thus the increase in exports help in raising national income multiplier times in such countries.

EXERCISES

1. Explain the Foreign Trade Multiplier without and with foreign repercussions.
2. What is a foreign trade multiplier? How does it work? State its policy implications from the view point of under-developed economy.
3. Explain the working and limitations of foreign trade multipliers.
4. Explain the inter-relationship between national income and international trade of a country. 1. W.A. Lewis, *Tata Memorial Lecture*, 1973.

[1.](#) W.A. Lewis, Tata Memorial Lecture, 1973.



FOREIGN EXCHANGE RATE

1. MEANING OF FOREIGN EXCHANGE RATE

The foreign exchange rate or exchange rate is the rate at which one currency is exchanged for another. It is the price of one currency in terms of another currency. It is customary to define the exchange rate as the price of one unit of the foreign currency in terms of the domestic currency. The exchange rate between the dollar and the pound refers to the number of dollars required to purchase a pound. Thus the exchange rate between the dollar and the pound from the US viewpoint is expressed as $\$ 2.50 = \pounds 1$. The Britishers would express it as the number of pounds required to get one dollar, and the above exchange rate would be shown as $\pounds 0.40 = \$ 1$.

The exchange rate of $\$ 2.50 = \pounds 1$ or $\pounds 0.40 = \$ 1$ will be maintained in the world foreign exchange market by arbitrage. *Arbitrage refers to the purchase of a foreign currency in a market where its price is low and to sell it in some other market where its price is high.* The effect of arbitrage is to remove differences in the foreign exchange rate of currencies so that there is a single exchange rate in the world foreign exchange market. If the exchange rate is $\$ 2.48$ in the London exchange market and $\$ 2.50$ in the New York exchange market, foreign exchange speculators, known as arbitrageurs, will buy pounds in London and sell them in New York, thereby making a profit of 2 cents on each pound. As a result, the price of pounds in terms of dollars rises in the London market and falls in the New York market.

Ultimately, it will equal in both the markets and arbitrage comes to an end. If the exchange rate between the dollar and the pound rises to \$ 2.60 = £ 1 through time, the dollar is said to depreciate with respect to the pound, because now more dollars are needed to buy one pound. When the rate of exchange between the dollar and the pound falls to \$ 2.40 = £ 1, the value of the dollar is said to appreciate because now less dollars are required to purchase one pound. If the value of the first currency depreciates that of the other appreciates, and vice versa. Thus a depreciation of the dollar against the pound is the same thing as the appreciation of the pound against the dollar, and vice versa.

2. DETERMINATION OF EQUILIBRIUM EXCHANGE RATE

The exchange rate in a free market is determined by the demand for and the supply of foreign exchange. The equilibrium exchange rate is the rate at which the demand for foreign exchange equals to supply of foreign exchange. In other words, it is the rate which clears the market for foreign exchange. Ragner Nurkse defined the equilibrium exchange rate as, "that rate which over a certain period of time, keeps the balance of payments in equilibrium." There are two ways of determining the equilibrium exchange rate. The rate of exchange between dollars and pounds can be determined either by the demand and supply of dollars with the price of dollars in pounds, or by the demand and supply of pounds with the price of pounds in dollars. Whatever method is adopted, it yields the same result. The analysis that follows is based on the dollar price in terms of pounds.

THE DEMAND FOR FOREIGN EXCHANGE

The demand for foreign exchange is a derived demand from pounds. It arises from import of British goods and services into the US and from capital movements from the US to Britain. In fact, the demand for pounds implies a supply of dollars. When the US businessmen buy British goods and services and make capital transfers to Britain, they create demand for British pounds in exchange for US dollars.

because they cannot make payments to Britain in their currency, the US dollars.

The demand curve for pounds DD is downward sloping from left to right in Figure 1. it implies that the lower the exchange rate on pounds, the larger will be the quantity of pounds demanded in the foreign exchange (US) market, and vice versa. This is because a lower exchange rate on pounds make British exports of goods and services cheaper in terms of dollars. The opposite happens if the exchange rate on pound is higher. it will make British goods and services dearer in terms of dollars, and the demand for pounds will fall in the foreign exchange (US) market. But the shape of the demand curve for foreign exchange will depend on the elasticity of demand for imports. "If a country imports necessities and raw materials, we may expect the elasticity of demand for imports to be low and the quantity imported to be insensitive to price changes. if, on the other hand, the country imported luxury goods and goods for which suitable substitutes exist, demand elasticities for imports might be high... . If the country has many well-developed import competing industries, the elasticity of demand for imports most certainly is high... . In the short run, elasticity of demand for imports may not be very high. In the long run, however it is much more probable that the production pattern will alter according to price changes, and the demand for imports, therefore, will be more elastic."¹

THE SUPPLY OF FOREIGN EXCHANGE

The supply of foreign exchange in our case is the supply of pounds. It arises from the US exports of goods and services and from capital movements from the US to Britain. Pounds are offered in exchange for dollars because British holders of pounds wish to make payments in dollars. Thus the supply of foreign exchange reflects the quantities of pounds that would be supplied in the foreign exchange market at various dollars prices of pounds.

The supply curve for pounds SS is an upward sloping curve, as shown in Figure 1. It is a positive function of the exchange rate on pounds. As the exchange rate on pounds increases, the greater is

the quantity of pounds supplied in the foreign exchange market. This is because with increase in the dollar price of pounds (lower pounds price of dollars), US goods, services and capital funds become better bargains to holders of pounds. Therefore the holders of pounds will offer larger quantities of pounds with the increase in the exchange rate.

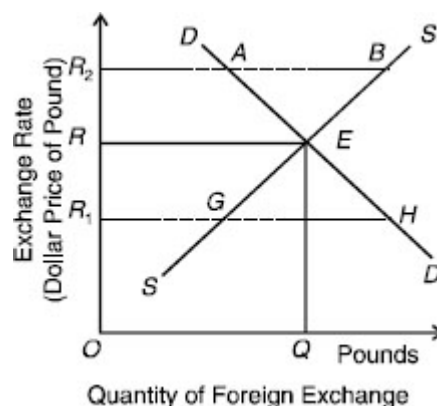


FIG. 1

1. Bo Sodersten, *op. cit.*, p. 211. Students who find it difficult to understand may leave this para without loss in continuity.

But the shape of supply curve of foreign exchange will be determined by the elasticity of the supply curve. "As the value of the country's own currency increases, imports become relatively cheaper, and more is imported. As more is imported, more of the home currency is supplied on the foreign exchange market, provided elasticity is greater than unity. When imports become relatively cheap, new goods will start to be imported, and domestic import-competing industry will be gradually eliminated by imports. These are two important reasons why we expect the supply of foreign exchange to be quite elastic. Further, the larger the time perspective we take into account, the more elastic will be the supply."²

EQUILIBRIUM EXCHANGE RATE

Given the demand and supply curves of foreign exchange, the equilibrium exchange rate is determined where *DD*, the demand curve for pounds intersects *SS*, the supply curve of pounds. They cut each other at point *E* in Figure 1. The equilibrium rate is *OR* and *OQ* of foreign exchange is demanded, and supplied. At *OR* exchange rate the US demand for pounds equals the British supply of pounds, and the foreign exchange market is cleared. At any higher rate than this, the supply of pounds would be larger than the demand for pounds so that some people who wish to convert pounds into dollars will be unable to do so. The price of pounds will fall, less pounds will

be supplied and more will be demanded. Ultimately, the equilibrium rate of exchange will be re-established. In Figure 1 when the exchange rate increases to OR_2 , the supply of pounds $R_2B > R_2A$ the demand for pounds. With the fall in the price of pounds, the equilibrium exchange rate OR_2 is again established at point E . on the contrary, at an exchange rate lower than this, say OR_1 , the demand for pounds R_1H is greater than the supply of pounds R_1G . Some people who want pounds will not be able to get them. The price of pounds will rise which will reduce the demand and increase the supply of pounds so that the equilibrium exchange rate OR is re-established at point E where the two curves DD and SS intersect.

Suppose there is a shift upward in the US demand for pounds, as shown by the upward shifting of the DD curve to D_1D_1 in Figure 2 (A). This may be due to increase in the US tastes for British goods, an increase in the US national income, etc. which increases the demand for imported goods in the US. With the shifting up of the demand curve to D_1D_1 , the US dollar depreciates and the British pound appreciates which re-establish the new equilibrium exchange rate OR_2 at point E_2 where OQ_2 quantity of foreign exchange is demanded and supplied.

on the other hand, if the supply of pounds increases and the supply curve shifts down from SS to S_1S_1 , as shown in Figure 2 (B), the value of pounds depreciates and that of dollars appreciates. This automatically brings about a new equilibrium exchange rate OR_1 at point E_1 in Figure 2 (B) where the S_1S_1 curve intersects the DD curve. At the new equilibrium exchange rate OR_1 , OQ_1 of foreign exchange is demanded and supplied. The supply of pounds may increase due to the increase in the tastes of Britishers for the US goods, the increase in the national income of Britain, etc.

[2. Ibid.](#), 214-15. Students who find it difficult may also leave this para.

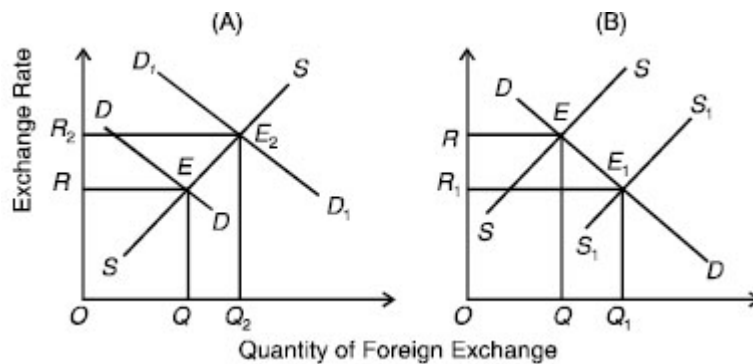


FIG. 2

Thus under flexible exchange rates, equilibrium rate of exchange will prevail which will clear the market and keep the balance of payments in equilibrium.

3. THEORIES OF FOREIGN EXCHANGE RATE

There are three theories of the determination of foreign exchange rate. The first is the Mint Parity Theory, the second is the Purchasing Power Parity Theory, and the third is the Balance of Payments Theory. We discuss these theories one by one.

1. THE MINT PARITY THEORY : DETERMINATION UNDER GOLD STANDARD

This theory is associated with the working of the international gold standard. Under this system, the currency in use was made of gold or was convertible into gold at a fixed rate. The value of the currency unit was defined in terms of certain weight of gold, that is, so many grains of gold to the rupee, the dollar, the pound, etc. The central bank of the country was always ready to buy and sell gold at the specified price. The rate at which the standard money of the country was convertible into gold was called the *mint price* of gold. If the official British price of gold was £6 per ounce and the US price of gold \$ 36 per ounce, they were the mint prices of gold in the respective countries. The exchange rate between the dollar and the pound would be fixed at $\$ 36 / \text{£}6 = \$ 6$. This rate was called the mint parity or mint par of exchange because it was based on the mint

price of gold. Thus under the gold standard, the normal or basic rate of exchange was equal to the ratio of their mint par values ($R = \$/\pounds$).

But the actual rate of exchange could vary above and below the mint parity by the cost of shipping gold between the two countries. To illustrate this, suppose the US has a deficit in its balance of payments with Britain. The difference between the value of imports and exports will have to be paid in gold by US importers because the demand for pounds exceeds the supply of pounds. But the transshipment of gold involves transportation cost and other handling charges, insurance, etc. Suppose the shipping cost of gold from the US to Britain is 3 cents. So the US importers will have to spend \$ 6.03 (\$ 6 + .03c) for getting £ 1. This could be the exchange rate which is the US *gold export point* or *upper specie point*. No US importer would pay more than \$ 6.03 to obtain one pound because he can buy \$ 6 worth of gold from the US treasury and ship it to Britain at a cost of 3 cents per ounce. Similarly, the exchange rate of the pound cannot fall below \$ 5.97 in the case of a surplus in the US balance of payments. Thus the exchange rate of \$ 5.97 to a pound is the US *gold import point* or *lower specie point*.

ASSUMPTIONS

This theory is based on the following assumptions:

1. The price of gold is fixed by a country in terms of its currency.
2. It buys and sells gold in any amount at that price.
3. Its supply of money consists of gold or paper currency which is backed by gold.
4. Its price level varies directly with its money supply.
5. There is movement of gold between countries.
6. capital is mobile within countries.

7. The adjustment mechanism is automatic.

EXPLANATION

Given these assumptions, the exchange rate under the gold standard is determined by the forces of demand and supply between the gold points and is prevented from moving outside the gold points by shipments of gold.

Figure 3 shows the determination of the exchange rate under the gold standard. The exchange rate OR is set up at point E where the demand and supply curves DD_1 and SS_1 intersect. The exchange rate need not be at the mint parity. It can be anywhere between the gold points depending on the shape of the demand and supply curves. The mint parity is simply meant to define

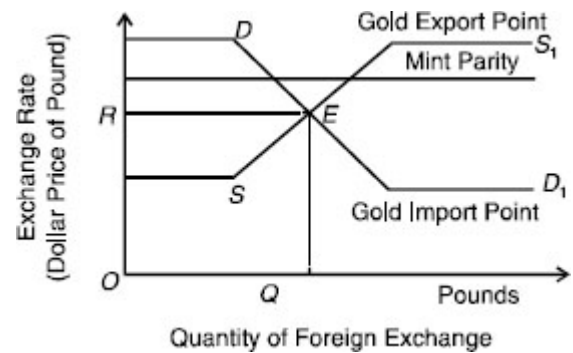


FIG. 3

the US gold export point (\$ 6.03) and the US gold import point (\$ 5.97). Since the US treasury is prepared to sell any quantity of gold at a price of \$ 36 per ounce, no American would pay more than \$ 6.03 per pound, because he can get any quantity of pounds at that price by exporting gold. That is why, the US supply curve of pounds becomes perfectly elastic or horizontal at the US gold export point. This is shown by the horizontal portion S_1 of the SS_1 supply curve. Similarly, as the US treasury is prepared to buy any quantity of gold at \$ 36 per ounce, no American would sell pounds less than \$ 5.97 because he can sell any quantity of pounds at the price by gold imports. Thus the US demand curve for pounds becomes perfectly elastic at the US gold import point. This is shown by the horizontal portion D_1 of the demand curve DD_1 .

CRITICISMS

The mint parity theory has been criticised on the following grounds :

1. The international gold standard does not exist now ever since it broke down after the Depression of the 1930s.
2. The theory is based on the assumption of free buying and selling of gold and its movement between countries. But governments do not allow such sales, purchases and movements.
3. The theory fails to explain the determination of exchange rates as most countries are on inconvertible paper standard.
4. This theory assumes flexibility of internal prices. But modern governments follow independent domestic price policy unrelated to fluctuations in exchange rate.

conclusion. The mint parity theory has long been discarded ever since the gold standard broke down. No country is on the gold standard now. There are neither free movements of gold nor gold parities. So this theory has only an academic interest.

2. THE PURCHASING POWER PARITY THEORY

The purchasing power parity (PPP) theory was developed by Gustav Cassel in 1920 to determine the exchange rate between countries on inconvertible paper currencies. The theory states that equilibrium exchange rate between two inconvertible paper currencies is determined by the equality of the relative change in relative prices in the two countries. In other words, the rate of exchange between two countries is determined by their relative price levels. There are two versions of the PPP theory : the absolute and the relative. The absolute version states that the exchange rate between two currencies should be equal to the ratio of the price indexes in the two countries. The formula is $R_{AB} = P_A/P_B$ where R_{AB} is the exchange rate between two countries A and B and P refers to the price index. This version is not used because it ignores transportation costs and other factors which hinder trade, non-traded goods, capital flows and real purchasing power. Economists, therefore, use the relative version which we discuss. The theory can be explained with the help of an example.

Suppose India and England are on inconvertible paper standard and by spending Rs. 60, the same bundle of goods can be purchased in India as can be bought by spending £ 1 in England. Thus according to the purchasing power parity theory, the rate of exchange will be Rs. 60 = £ 1. If the price levels in the two countries remain the same but the exchange rate moves to Rs. 50 = £ 1. This means that less rupees are required to buy the same bundle of goods in India as compared to £ 1 in England. It is a case of *overvaluation* of the exchange rate. This will encourage imports and discourage exports by India. As a result, the demand for pounds will increase and that of rupees will fall. This process will ultimately restore the normal exchange rate of Rs. 60 = £ 1. In the converse case, if the exchange rate moves to Rs. 70 = £ 1, the Indian currency becomes *undervalued*. As a result, exports are encouraged and imports are discouraged. The demand for rupees will rise and that for pounds will fall so that the normal exchange rate of Rs. 60 = £ 1 will be restored.

According to the theory, the exchange rate between two countries is determined at a point which expresses the equality between the respective purchasing powers of the two currencies. This is the purchasing power parity which is a moving par and not fixed par (as under the gold standard). Thus with every change in price level, the exchange rate also changes. To calculate the equilibrium exchange rate, the following formula is used :

$$R = \frac{\text{Domestic Price of a Foreign Currency} \times \text{Domestic Price Index}}{\text{Foreign Price Index}}$$

$$\text{or } R = R_0 \times \frac{P_{A1}/P_{A0}}{P_{B1}/P_{B0}}$$

where 0 = base period, 1 = period 1, A and B countries, P = price index and R_0 = exchange rate in base period.

According to Cassel, the purchasing power parity is “determined by the quotients of the purchasing powers of the different currencies.” This is what the formula does. Let us explain it in terms of our above example. Before the change in the price level, the exchange rate

was Rs. 60 = £ 1. Suppose the domestic (Indian) price index rises to 300 and the foreign (England) price index rises to 200, thus the new equilibrium exchange rate will be

$$R = \text{£ } 1 \times \frac{300}{200} = \text{£ } 1.5$$

or

$$\text{Rs. } 60 = \text{£ } 1.5$$

This will be the purchasing power parity between the two countries. In reality, the parity will be modified by the cost of transporting goods including duties, insurance, banking and other charges. These costs of transporting goods from one country to another are, in fact, the limits within the exchange rate can fluctuate depending upon the demand and supply of a country's currency. There is the upper limit, called the commodity export point; and the lower limit, known as the commodity import point. (These limits are not as definite as the gold points under the mint par theory).

The PPP theory is illustrated in Figure 4 where DD is the demand curve for foreign currency (pound in our example) and SS is the supply curve of currency. OR is the rate to exchange of rupees per £, which is determined by their intersection at point E so that the demand for the supply of

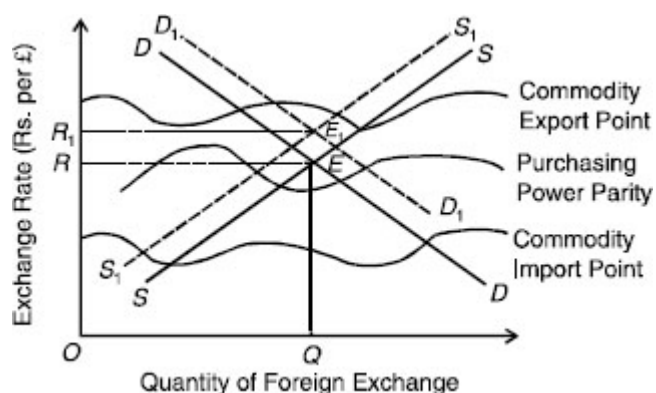


FIG. 4

foreign exchange equals OQ quantity. Suppose the price level rises in India and remains constant in England. This makes Indian exports costly in England and imports from England relatively cheaper in India. As a result, the demand for pounds increases and the supply of pounds decreases. Now the DD curve shifts upward to the right to D_1D_1 and the SS curve to the left to S_1S_1 . The new equilibrium exchange rate is set at OR_1 rupees per pound, which represents the new purchasing power parity. The exchange rate rises by the same percentage as the Indian price level. The purchasing power curve shows that with relative change in the price levels, the exchange rate

tends to fluctuate along this curve above or below the normal exchange rate. But there is a limit upto which the purchasing power parity curve can move up and down. The upper and lower limits are set by the commodity export point and the commodity import point respectively.

CRITICISMS

Cassell's PPP theory became very popular among economists during 1914-24 and was widely accepted as a realistic explanation of the determination of foreign exchange rate under inconvertible paper currencies. But it has been severely criticised for its weak theoretical base. Some of the criticisms are discussed as under :

1. Defects in Calculating Price Level. One of the serious defects of the theory is that of calculating the price levels in the two countries. The use of index number in calculations presents many difficulties such as the base year, coverage and method of calculation. These may not be the same in both countries. The two countries may not include the same types of commodities in calculating the index numbers. Such difficulties make the index numbers only a rough guide for measuring the price levels and thus fail to give the correct purchasing power parity between the two countries.

2. Comparison of General Price Level a Difficult Problem. According to the theory, the purchasing power parity between two countries is determined by comparing their general price levels. But the price level may be made up of internally traded plus internationally traded goods, or of the internationally traded goods. If the price level is calculated in terms of the internally traded goods, then the prices tend to equality in both countries, even allowing for the cost of transportation, tariffs, etc. Thus, according to Keynes, "confined to internationally traded commodities, the purchasing power parity becomes an empty truism."³ on the other hand, if the price level includes both internally and internationally traded goods, then price of internally traded goods may move in the opposite direction of internationally traded goods, at least in the short period. Thus the real exchange rate may not conform to the parities.

Further, if the price level includes both types of goods, there is technical difficulty of people spending their money differently in the two countries, so that the basis for complete and accurate comparisons of price levels is lacking.

3. Not Applicable to Capital Account. Another weakness of the purchasing power parity theory is that it applies to countries whose balance of payments is determined by the merchandise trade account. It is, therefore, not applicable to such countries whose exchange rate is influenced more by capital account.

4. Difficult to Find Base Year. The theory assumes the balance of payments to be in equilibrium in the base period for the determination of the new equilibrium exchange rate. This is a serious defect, because it is difficult to find the base year when the exchange rate was initially in equilibrium.

5. Structural Changes in Factors. The theory is also based on the assumption that there have been no structural changes in the factors underlying the equilibrium in the base period. Such factors are changes in technology, resources, tastes, etc. This assumption is highly unrealistic because changes are bound to take place in these factors which, in turn, are likely to affect exchange rate.

6. Capital is Mobile. The theory is based on the assumption of zero-capital movements. There are many items in the balance of payments such as insurance, shipping, and banking transactions, capital movements, etc. which are not affected by changes in the general price level. But these items affect the exchange rate by influencing the demand for and supply of foreign currencies. The theory is thus weak for it neglects the influence of these factors in determining the exchange rate.

7. Changes in Exchange Rates affects Price Level. The theory further assumes that changes in the price level bring about changes in exchange rates. But changes in exchange rates do affect the price level. For instance, if the external value of rupee falls, imports will become dearer. As a result, the costs and prices of goods using

imported materials will rise. on the other hand, exports will become cheaper with fall in the external value of the rupee. consequently, their demand will increase which will raise the demand for factors used for producing exports, and their prices will also rise. Thus changes in exchange rate do influence the price level.

8. Barter Terms of Trade Change. The theory assumes that the barter terms of trade do not change between the two trading countries. This assumption is unrealistic because the barter terms of trade constantly change due to changes in the demand for foreign goods, in the volume of external loans, in the supply of exported goods, in transport costs, etc.

3. J.M. Keynes, *A Tract on Monetary Reform*, p. 101.

9. No Free Trade. The theory is based on the assumption of free trade and *laissez-faire* policy. But governments do not follow these policies these days. Rather, they impose a number of restrictions on the movement of goods between countries. Such trade restrictions are tariff, import quotas, customs duties and various exchange control devices which tend to reduce the volume of imports. These, in turn, cause wide deviations between the actual exchange rate and the exchange rate set by the purchasing power parity.

10. Only Purchasing Power Parity does not Determine Exchange Rate. The equilibrium exchange rate may not be determined by the purchasing power parity between the two countries. Rather, a sudden increase in the demand for goods of one country may raise the demand for its currency on the part of the other country. This will lead to a rise in the exchange rate.

11. Neglect of Elasticities of Reciprocal Demand. According to Keynes, one of the serious defects of this theory is that it fails to consider the elasticities of reciprocal demand. In fact, the exchange rate is determined not only by changes in relative prices, but also by the elasticities of reciprocal demand between the two trading countries.

12. It is One Sided. Ragner Nurkse points out that the theory is one-sided in that it is based exclusively on changes in relative prices and neglects all factors that influence the demand for foreign exchange. The theory treats demand as a function of price but neglects the influence of aggregate income and expenditure on the volume and value of foreign trade, these are important factors which affect the exchange rate of a country.

13. No Direct Relation between Exchange Rate and Purchasing Power. The theory assumes direct relation between exchange rate and purchasing powers of two currencies. In reality, there is no such relation between the two.

14. Static Theory. This is a static theory because it assumes no changes in tastes, incomes, technology, tariffs, etc. These make the theory unrealistic.

15. Long Run Theory. This theory is applicable in the long run and fails to determine exchange rate in the short run.

16. Relevant for Bilateral Trade. The theory is relevant only for bilateral exchange rate determination and fails to determine exchange rate in the present multilateral trade relations.

17. Not Possible to Compute Equilibrium Exchange Rate. According to Halm⁴, "Purchasing power parities cannot be used to compute equilibrium exchange rates or to gauge with precision deviations from international payments equilibrium."⁴

Conclusion. Despite these criticisms, Haberler finds the theory useful. According to him, "While the price levels of different countries may diverge, their price systems are nevertheless interrelated and interdependent, although the relation need not be that of equality. Moreover, supporters of the theory are quite right in contending that the exchanges can always be established at any desired level of appropriate changes in the volume of money."⁵

3. The Balance of Payments Theory

According to this theory, under free exchange rates, the exchange rate of the currency of a country depends upon its balance of payments. A favourable balance of payments raises the exchange rate, while an unfavourable balance of payments reduces the exchange rate. Thus the theory implies that the exchange rate is determined by the demand for the supply of foreign exchange.

[4.](#) G.N. Halm, *Monetary Theory*, p. 228.

[5.](#) G. Haberler, *op. cit.*, p. 38.

The demand for foreign exchange arises from the debit side of the balance of payments. It is equal to the value of payments made to the foreign country for goods and services purchased from it plus loans and investments made abroad. The supply of foreign exchange arises from the credit side of the balance of payments. It equals all payments made by the foreign country to our country for goods and services purchased from us plus loans disbursed and investments made in this country. The balance of payments balances if debits and credits are equal. If debits exceed credits, the balance of payments is unfavourable. on the contrary, if credits exceed debits it is favourable. When the balance of payments is unfavourable, it means that the demand for foreign currency is more than its supply. This causes the external value of the domestic currency to fall in relation to the foreign currency. consequently, the exchange rate falls. on the other hand, in case the balance of payments is favourable, the demand for foreign currency is less than its supply at a given exchange rate. This causes the external value of the domestic currency to rise in relation to the foreign currency. consequently, the exchange rate rises.

When the exchange rate falls below the equilibrium exchange rate in a situation of adverse balance of payments, exports increase and the adverse balance of payments is eliminated, and the equilibrium exchange rate is re-established. on the other hand, when under a favourable balance of payment situation, the exchange rate rises above the equilibrium exchange rate, exports decline, the favourable

balance of payments disappears and the equilibrium exchange rate is reestablished. Thus at any point of time, the rate of exchange is determined by the demand for and the supply of foreign exchange as represented by the debit and credit side of the balance of payments. "Any change in the conditions of demand or of supply reflects itself in a change in the exchange rate, and at the ruling rate the balance of payments balances from day to day or from moment to moment."

The determination of exchange rate under the balance of payments theory is illustrated in Figure 5. *DD* is the demand curve for foreign currency. It slopes downward to the left because when the rate of exchange rises, the demand for foreign currency falls, and vice versa. *SS* is the supply curve of foreign exchange which slopes upwards from left to right.

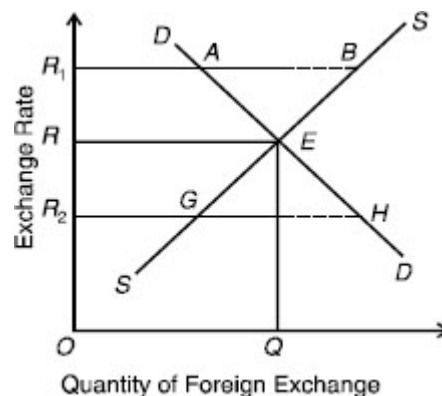


FIG. 5

This is because when the exchange rate falls, the amount of foreign currency offered for sale will be less, and *vice versa*. The two curves intersect at *E* where *OR* equilibrium exchange rate is determined. At $\square$ this rate, the quantity of foreign exchange demanded and supplied equals *OQ*. *E* is also the point where the balance of payments is in equilibrium. Any exchange rate above or below *OR* will mean disequilibrium in the balance of payments. Suppose the exchange rate rises to *OR*₁. The demand for foreign exchange *R*₁*A* is less than its supply *R*₁*B* (*R*₁*A* < *R*₁*B*). It means that there is a favourable balance of payments. When the exchange rate is more than the equilibrium rate, exports decline and imports increase. Consequently, the demand for foreign exchange will rise and the supply will fall. Ultimately, the equilibrium exchange rate *OR* will be restored where demand and supply of foreign exchange equals at point *E*. In the opposite case, when the exchange rate falls below the equilibrium rate to *OR*₂, the demand for foreign exchange *R*₂*H* is greater than its supply *R*₂*G* (*R*₂*H* > *R*₂*G*). It implies an unfavourable balance of payments. But fall in the exchange rate leads to increase in exports and decline in imports. As a result, the demand for foreign currency starts falling and the supply

starts rising till the equilibrium exchange rate *OR* is re-established with the equality of demand and supply of foreign exchange at point *E*.

However, it is the shape of the demand and supply curves of foreign exchange that determine the exchange rate. For this purpose, four elasticities are relevant : (i) the foreign elasticity of demand for exports, (ii) the domestic elasticity of supply for exports, (iii) the domestic elasticity of demand for imports, and (iv) the foreign elasticity of supply for imports. The equilibrium exchange rate tends to be stable if the demand elasticities are high and the supply elasticities are low.

However, according to this theory, the demand and supply of foreign exchange are determined by factors that are independent of changes in the exchange rate. Such factors are interest on foreign loans, reparation payments, etc. Further, the demand for many items that enter into import trade is perfectly inelastic so that exchange rate changes do not affect them at all. Raw materials come in this category which are required to be imported from certain countries whatever be their prices.

CRITICISMS

The balance of payments theory has been criticised by economists on the following counts :

1. Balance of Payments Independent of Exchange Rate. The main defect of the theory is that the balance of payments is independent of the exchange rate. In other words, the theory states that the balance of payments determines the exchange rate. This is not wholly true because it is changes in the exchange rate that bring about equilibrium in the balance of payments.

2. Neglects the Role of Price Level. The theory neglects the role of the price level in influencing the balance of payments of a country and hence its exchange rate. But the fact is that price changes do

affect the balance of payments and the exchange rates between countries.

3. No Free Trade and Perfect Competition. The theory is based on assumptions of free trade and perfect competition. This is unrealistic because free trade is not practised these days. Governments impose a number of restrictions to reduce imports and adopt measures to encourage exports. This is how they try to correct disequilibrium in the balance of payments.

4. Truism. The theory presupposes that there is an equilibrium exchange rate where balance of payments balances. This is a truism. But the equilibrium exchange rate may not be one of balance of payments equilibrium. In fact, exchange rates between countries continue to prevail under conditions of surplus or deficit in the balance of payments and there is no tendency for the balance of payments to be in equilibrium over the long run.

5. Demand for Imported Raw Materials not Inelastic. The theory has been criticised for the assumption that the demand for imported raw materials is inelastic. There is no raw materials in the world the demand for which is perfectly inelastic.

Its Superiority. Despite these criticisms, the balance of payments theory is the most satisfactory explanation of the determination of exchange rate. It studies the problem of determination of exchange rate under the framework of the general equilibrium analysis in terms of demand and supply. It studies the actual forces which lie behind the demand and supply of foreign exchange, such as the current account and the capital account of the balance of payments. An important implication of the theory is that adjustments in balance of payments can be made through devaluation and revaluation of some currency in case of deficit and surplus in balance of payments respectively. That is why, it is regarded superior to the mint par and purchasing power parity theories of exchange rate.

4. CAUSES OF CHANGES IN THE EXCHANGE RATE

The exchange rate between countries changes due to changes in demand or supply in the foreign exchange market. The factors which cause changes in demand and supply are discussed as under :

1. Changes in Prices. It is changes in the relative price levels that cause changes in the exchange rate. Suppose the price level in Britain rises relative to the US price level. This will lead to the rise in the prices of British goods in terms of pound. British goods will become dearer in the US. This will lead to reduction in British exports to the US. So the supply of dollars to Britain will diminish. on the other hand, the American goods become cheaper in Britain and their imports into Britain increase. So the demand for dollars will increase. Thus the supply curve for dollars will shift to the left so that the exchange rate is established at a higher level from the point of view of the US. It implies appreciation of the value of the dollar and depreciation of the value of the pound.

2. Changes in Interest Rates. Changes in interest rates also lead to changes in the exchange rate. If interest rates rise in the home country, there is a large inflow of capital from foreign countries. As a result, the exchange rate of the domestic currency will appreciate, relative to the foreign currency. The opposite will be the case, if interest rates fall in the home country.

3. Changes in Exports and Imports. The demand and supply of foreign exchange is also influenced by changes in exports and imports. If exports of the country are more than imports, the demand for its currency increases so that the rate of exchange moves in its favour. Conversely, if imports are more than exports, the demand for the foreign currency increases and the rate of exchange will move against the country.

4. Capital Movements. Short-term or long-term capital movements also influence the exchange rate. Capital-flows tend to appreciate the value of the currency of the capital-importing country and

depreciate the value of the currency of the capital-exporting country. The exchange rate will move in favour of the capital-importing country and against the capital-exporting country. The demand for the currency of the capital-importing country will rise and its demand curve will shift upward to the right and the exchange rate will be determined at a higher level, given the supply curve of foreign exchange.

5. Influence of Banks. Banks also affect the exchange rate through their operation. They include the purchase and sale of bank drafts, letters of credit, arbitrage, dealing in bills of exchange, etc. These banking operations influence the demand for and supply of foreign exchange. If the commercial banks issue a large number of drafts and letter of credit on foreign banks, the demand for foreign currency rises.

6. Changes in Bank Rate. The bank rate also influences the exchange rate. If the bank rate rises relative to other countries, more funds will flow into the country from abroad to earn high interest rate. It will tend to raise the demand for the domestic currency and the exchange rate will move in favour of the country. Converse will be the case when the bank rate falls.

7. Influence of Speculation. The growth of speculative activities also influences the exchange rate. Speculation causes short-run fluctuations in the exchange rate. Uncertainty in the international money market encourages speculation in foreign exchange. If the speculators expect a fall in the value of currency in the near future, they will sell that currency and start buying the other currency they expect to appreciate in value. Consequently, the supply of the former currency will increase and its exchange rate will fall. While the demand for the other currency will rise and its exchange rate will go up.

8. Stock Exchange Influences. Stock exchange operations in foreign securities, debentures, stocks and shares, etc. exert significant influence on the exchange rate. If the stock exchanges help in the sale of securities, debentures, shares etc. to foreigners,

the demand for the domestic currency will rise on the part of the foreigners and the exchange rate also tends to rise. The opposite will be the case if the foreigners purchase securities, debentures, shares, etc. through the domestic stock exchanges.

9. Structural Influences. Structural change is another important factor which influences the exchange rate of a country. Structural changes are those which bring changes in the consumer demand for commodities. They include technological changes, innovations, etc. which also affect the cost structure along with the demand for products. Such structural changes tend to increase the foreign demand for domestic products. It implies increase in exports, greater demand for domestic currency, appreciation of its value and rise in the exchange rate.

10. Political Conditions. Stable political and industrial conditions and peace and security in the country have a significant influence on the exchange rate. If there is political stability and the government is stable, strong and efficient, foreigners will have tendency to invest their funds into the country. With the inflow of capital, the demand for domestic currency will rise and the exchange rate will move in favour of the country. on the contrary, if the government is weak, inefficient and dishonest and there is no safety to life and property, capital will flow out of the country and the exchange rate will move against the country.

11. Policies of Exchange Control and Protection. Policies of exchange control and protection discourage imports and lead to fall in the demand for foreign currency. As a result, the exchange rate of the home country appreciates in relation to the foreign country.

12. Type of Economy. If a country is developing, it needs to import large quantities of raw materials, and capital goods for its development along with capital. But its capacity to export is low. Therefore, its demand for foreign exchange is more which leads to the depreciation of its exchange rate vis-a-vis a developed country whose exchange rate appreciates.

EXERCISES

1. What is an equilibrium rate of exchange? How is it determined?
2. How is the rate of exchange determined under gold standard?
3. Explain how foreign exchange rate is determined under inconvertible paper currencies.
4. Critically examine the Purchasing Power Parity Theory of exchange rates.
5. Discuss the Balance of Payments Theory of foreign exchange rates.
6. Examine the factors influencing the foreign exchange rates.

FOREIGN EXCHANGE RATE POLICY

1. INTRODUCTION

In the previous chapter we discussed the various theories relating to the determination of exchange rate under different exchange rate regimes. The present chapter discusses the exchange rate adjustment policies that have been in vogue from time to time with the establishment of the IMF. Before we discuss them, it is instructive to have a theoretical interlude relating to fixed and fluctuating exchange rates.

2. FIXED EXCHANGE RATES

Under fixed or pegged exchange rates all exchange transactions take place at an exchange rate that is determined by the monetary authority. It may fix the exchange rate by legislation or intervention in currency markets. It may buy or sell currencies according to the needs of the country or may take policy decision to appreciate or depreciate the national currency. The monetary authority (central bank) holds foreign currency reserves in order to intervene in the foreign exchange market, when the demand and supply of foreign

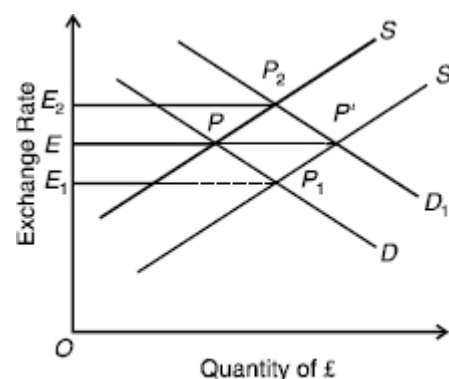


FIG. 1

exchange (say pounds) are not equal at the fixed rate. This is explained in Fig. 1 where D and S are the demand and supply curves of pound. They determine the exchange rate E which the authority maintains. Suppose the demand for pounds is more than their supply, as shown by PP' in the figure given the supply (S curve). This leads to rise in the exchange rate to E_2 when the new demand curve D_1 cuts the supply curve S . To maintain the exchange rate at the fixed level E , the monetary authority will continue to supply additional pounds to the market from its reserves till the exchange rate E is reached. In the opposite case, if there is excess supply of pounds equal to PP' in the market given the demand (D curve), the exchange rate falls to E_1 , as shown by the leftward shift of the supply curve to S_1 and it is intersecting the D curve at P_1 . The monetary authority will start buying these excess pounds from the market till the exchange rate E is reached.

The following arguments are usually advanced for and against the system of fixed exchange rates.

CASE FOR FIXED EXCHANGE RATES

Fixed exchange rates have the following advantages :

1. Based on Common Currency. The case for fixed exchange rate between different countries is based on the case for a common currency within a country. A country having a common currency with a fixed value facilitates trade increases production and leads to faster growth of the economy. Similarly, a country would benefit if it has a fixed value of its currency in relation to other countries. Thus fixed exchange rates encourage international trade by making prices of goods involved in trade more predictable. They promote economic integration. As pointed out by Johnson, "The case for fixed rates is part of a more general argument for national economic policies conducive to international economic integration."

2. Encourage Long Term Capital Flows. The second argument for a system of fixed exchange rates is that it encourages long-term

capital flows in an orderly and smooth manner. There is no uncertainty and risk resulting from a regime of fixed exchange rates.

3. No Fear of Currency Fluctuations. There is no fear of currency depreciation or appreciation under a system of fixed exchange rates. For instance, it removes fear that holding large quantities of foreign currency might lead to losses, if a currency's value drops. Thus it creates confidence in the strength of the domestic currency.

4. No Adverse Effect of Speculation. There is no fear of any adverse effect of speculation on the exchange rate, as speculative activities are controlled and prevented by the monetary authorities under a regime of fixed exchange rates.

5. Disciplinary. Another advantage claimed by a system of fixed exchange rates is that it serves as an 'anchor' and imposes a discipline on monetary authorities to follow responsible financial policies with countries. "Inflation will cause balance of payments deficits and reserve loss. Hence the authorities will have to take counter-measures to stop inflation. Fixed exchange rates should, therefore, impose 'discipline' on governments and stop them from pursuing inflationary policies which are out of tune with the rest of the world."¹

6. Best for Small Countries. Johnson favours fixed exchange rates in the 'banana republics' where foreign trade plays a dominant role. Flexible exchange rates in them lead to inflation and depreciation when the exchange rate falls.²

7. Less Inflationary. It leads to greater monetary discipline and so to less inflationary pressures.

8. Certainty. Fixed exchange rates create certainty about foreign payments among exporters and importers of goods because they know what they have to receive or pay in foreign exchange.

9. Suitable for Common Currency Areas. This system is suitable for common currency areas such as Euro, Dollar, etc. where fixed

exchange rates promote growth of world trade.

10. Promotes Money and Capital Markets. It promotes the development of international money and capital markets and helps the flow of capital among nations.

11. Multilateral Trade. This system encourages multilateral trade globally among countries because countries have no fear of wide fluctuations in exchange rates.

12. international Monetary Co-operation. The system of fixed exchange rates promotes international monetary co-operation and so helps in the smooth working of the international monetary system under such institutions as IMF, World Bank, Euro-Market.

[1.](#) Bo Sodersten, *op. cit.*, pp. 403-4.

[2.](#) Johnson uses the term 'banana republics' for small countries of Europe like UK, France, Denmark, etc. which are dependent on foreign trade.

CASE AGAINST FIXED EXCHANGE RATES

The following arguments are advanced against a system of fixed exchange rates :

1. Sacrifice of Objectives. The principle defect in the operation of a system of fixed exchange rates is the sacrifice of the objectives of full employment and stable prices at the alter of stable exchange rates. For example, balance of payments adjustment under fixed exchange rates of a surplus country can take place through a rise in prices. This is bound to impose large social costs within the country.

2. Unexpected Disturbances. Under this system, the effects of unexpected disturbances in the domestic economy are transmuted abroad. "While a country may be protected by fixed exchange rates from the full consequences of domestic disturbances and policy mistakes, it has to bear a share of the burden of the disturbances and mistakes of others. For to the extent that excess demand 'leaks

out' of the country where it was originally created, it 'leaks in' (via a balance of payments surplus) to that country's trading partner.”

3. Heavy Burden. Under it, large reserves of foreign currencies are required to be maintained. countries with balance of payments deficits must have large reserves if they want to avoid devaluation. If countries wish to remain on the fixed exchange rate system, they must hold large reserves of foreign currencies. This also imposes a heavy burden on the monetary authorities for managing foreign exchange reserves.

4. Malallocation of Resources. This system requires complicated exchange control measures which lead to malallocation of the economy's resources.

5. Complex system. This system is very complex because it requires highly skilled administrators to operate it. It is also time consuming and may lead to uncertain results. There is always the possibility of mistakes in policy formulation and implementation.

6. Comparative Advantage Unclear. Under this system, the comparative advantage of a country is not clear. For instance, the exchange rate may be so low that a product may seem very cheap to the other country. consequently, the country may export that commodity in which it has no comparative advantage. on the contrary with a very high exchange rate, the country may possess comparative advantage in a product.

7. Fixed Exchange Rate not Always Possible. Another problem relates to the stability of the exchange rate. The exchange rate of a country vis-a-vis another country cannot remain fixed for sufficiently long period. Balance of payments problems and fluctuations in international commodity prices often compel countries to bring changes in exchange rates. Thus it is not possible to have rigidly fixed exchange rates.

8. Balance of Payments Disequilibrium Persists. This system fails to solve the problem of balance of payments disequilibrium. It can be

tackled only temporarily because its permanent solution lies in monetary, fiscal and other measures.

9. Dependence on International Institutions. Under this system, a country mostly depends upon international institutions for borrowing and lending foreign currencies.

10. Problems of International Liquidity. To expand its trade, a country must have adequate international liquidity. To maintain a fixed exchange rate, the country must have sufficient reserves of foreign currencies to avoid balance of payments disequilibrium. On the other hand, excessive international liquidity is also not good for the country because the resulting extra demand may lead to international inflation.

Conclusion. In fact, a regime of fixed exchange rates presupposes uniformity of domestic policy objectives and response of prices to fluctuations in demand. Such a system would undoubtedly run into severe difficulties in the present-day world. This is because there is a reluctance to be committed to the harmonisation of domestic policy objectives; prices respond only in a limited fashion to fluctuations in the pressures of demand, and elasticities of demand in international trade have in general turned out to be quite low, at least in the short run. For these reasons, a rigidly fixed exchange rate regime has never been advanced as a serious possibility in any of the recent discussions of reform of the international monetary system.³

3. FLEXIBLE EXCHANGE RATES

Flexible, *floating* or *fluctuating* exchange rates are determined by market forces. The monetary authority does not intervene for the purpose of influencing the exchange rate. Under a regime of freely fluctuating exchange rates, if there is an excess supply of a currency, the value of that currency in foreign exchange markets will fall. It will lead to depreciation of the exchange rate. Consequently, equilibrium will be restored in the exchange market. On the other hand, shortage

of a currency will lead to appreciation of exchange rate thereby leading to restoration of equilibrium in the exchange market. These market forces operate automatically without any intervention on the part of monetary authority.

This is illustrated in Fig. 2 where D and S are the demand and supply curves of pounds which intersect at point P and the equilibrium exchange rate E is determined. Suppose the exchange rate rises to E_2 . The quantity of pounds supplied OQ_3 is more than the quantity demanded OQ_2 .

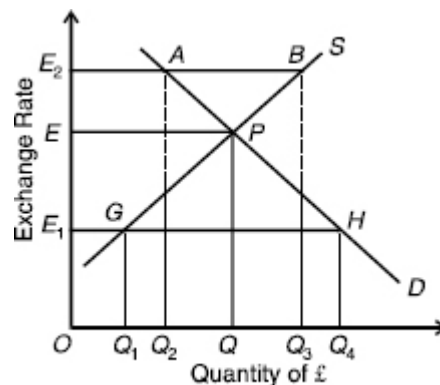


FIG. 2

When pounds are in excess supply, the price of pounds will fall in the foreign exchange market. The value of pound in terms of dollars will depreciate. Now less pounds will be supplied and more will be demanded. Ultimately, equilibrium will be re-established at the exchange rate E . on the other hand, if the exchange rate falls to E_1 , the quantity of pounds demanded OQ_4 is more than the quantity supplied OQ_1 . When there is a shortage of pounds in the foreign exchange market, the price of pounds will rise. The value of pound in terms of dollars will appreciate. The rise in the price of pounds will reduce demand for them and increase their supply. This process will continue till equilibrium exchange rate E is re-established at point P . We study below the case for and against flexible exchange rates.

CASE FOR FLEXIBLE EXCHANGE RATES

The following advantages are claimed for a system of flexible exchange rates:

1. **Simple Operation.** A system of flexible exchange rates is simple in the operative mechanism. The exchange rate moves automatically and freely to equate supply and demand, thereby clearing the foreign exchange market. It does not allow a deficit or surplus to build up and eliminates the problem of scarcity or surplus of any one currency. It also avoids the need to induce changes in prices and

incomes to maintain or restore equilibrium in the balance of payments.

2. Smoother Adjustments. Under it, the adjustment is continual. The adjustment in the balance of payments are smoother and painless as compared with the fixed exchange rate adjustments.

[3.](#) Andrew Crockett, *International Money, Issues and Analysis*, 1977.

In fact, flexible exchange rates avoid the aggravation of pressures on the balance of payments and the periodic crises that follow disequilibrium in the balance of payments under a system of fixed exchange rates. There is an escape from the various corrective measures that are adopted by the governments whenever the exchange rate depreciates or appreciates.

3. Autonomy of Economic Policies. Under this system, autonomy of the domestic economic policies is preserved. Modern governments are committed to maintain full employment and promote stability with growth. They are not required to sacrifice these objectives of full employment and economic growth in order to remove balance of payments disequilibrium under a regime of flexible exchange rates.

4. Disequilibrium in the Balance of Payments Automatically Corrected. Since under a system of flexible exchange rates disequilibrium in the balance of payments is automatically corrected, there is no need to accommodate gold movements and capital flows in and out of countries.

5. No Need of Foreign Exchange Reserves. There is no need for foreign exchange reserves where exchange rates are moving freely. A deficit country will simply allow its currency to depreciate in relation to foreign currency instead of intervening by supplying foreign exchange reserves to the other country to maintain a stable exchange rate.

6. Removes Problem of International Liquidity. A system of flexible exchange rates removes the problem of international liquidity. The shortage of international liquidity is the result of pegged exchange rates and intervention by monetary authorities to prevent fluctuations beyond narrow limits. When exchange rates are flexible, speculators will supply foreign exchange to satisfy private liquidity needs. Individuals, traders, banks, governments and others would, of course, continue to hold liquid assets in the form of gold or foreign exchange, but these holdings would be working reserves for purposes other than the maintenance of a fixed external value of the country's currency.⁴

7. No Need of Borrowing and Lending Short-term Funds. As a corollary to the above, when foreign exchange rates move freely, there is no need to have international institutional arrangements like the IMF for borrowing the lending short-term funds to remove disequilibrium in the balance of payments.

8. Effective Monetary Policy. The system of flexible exchange rates reinforces the effectiveness of monetary policy. If a country wants to increase output, it will lower interest rates under a regime of flexible exchange rates, the lowering of interest rates will result in an outflow of capital, a rise in the spot rate for the currency which will, in turn, cause exports to rise and imports to fall. The increased exports will tend to rise domestic prices, or income or both. Thus a favourable trade balance will reinforce the expansionary effects of lower interest rates on domestic spending, thereby making monetary policy more effective. The above process will be reversed if the country wants to fight inflation by raising interest rates. Thus a country uses monetary policy to achieve domestic objectives rather than external balance.

9. Mistakes Avoided. As a corollary, with automatic adjustments of balance of payments, there is no possibility of making monetary, fiscal and administrative policy mistakes.

10. Does not Require Complicated Trade Restrictions. A system of flexible exchange rates does not require the introduction of

complicated and expansive trade restrictions and exchange controls. Thus the cost of foreign exchange restrictions is removed.

11. No Need of Forming Custom Unions and Currency Areas.

Under this system, the world can get rid of competitive exchange rate depreciation and tariff warfare among nations and there shall be no need of forming custom unions and currency areas which are the concomitant results of the system of fixed exchange rates.

[4.](#) E. Sohmen, *Flexible Exchange Rates*, 1961.

12. Economical. This system is very economical because it does not require idle holding of foreign currencies. Rather, a country can use its foreign reserves to meet its immediate requirements.

13. Promotes International Trade. This system promotes international trade because it maintains the exchange rates at their natural level through continuous market adjustments. Thus there is no danger of over-valuation or under-valuation of a country's currency.

14. insulation from international Economic Events. Under this system, a country is protected against international economic fluctuations and shocks by making adjustments in its exchange rates.

15. Comparative Advantage. Under this system, the exchange rates are always in equilibrium. It is, therefore, possible to assess the comparative advantage of a country in a particular commodity.

CASE AGAINST FLEXIBLE EXCHANGE RATES

The advocates of fixed exchange rates advance the following arguments against a system of flexible exchange rates :

1. Malallocation of Resources. critics of flexible exchange rates point out that market mechanism may fail to bring about an appropriate exchange rate. The equilibrium exchange rate in the

foreign exchange market at a point of time may not give correct signals to concerned parties in the country. This may lead to wrong decisions and malallocation of resources with the country.

2. Official Intervention. It is difficult to define a freely flexible exchange rate. It is not possible to have an exchange rate where there is absolutely no official intervention. Government may not intervene directly in the foreign exchange market, but domestic monetary and fiscal measures do influence foreign exchange rates. For instance, if domestic saving is more than domestic investment, it means that the country is a net investor abroad. The outflow of capital will bring down the exchange rate. All this may be due to the indirect impact of government policies. Further, in the absence of any understanding among governments about exchange rate manipulation, the system of flexible exchange rates might lapse into anarchy, for every country would try to establish favourable exchange rates with other countries. This may lead to retaliation among nations and result in war of exchange rates with disruptive effects on trade and capital movements. Thus some sort of understanding or agreement concerning exchange rates is implied in a regime of flexible exchange rates.

3. No Justification. As a corollary, there is no justification for a government to leave the determination of exchange rates to international market forces when prices, rents, wages, interest rates, etc. are often controlled by the government.

4. Exchange Risks and Uncertainty. Another disadvantage of this system is that frequent variations in exchange rates, create exchange risks, breed uncertainty and impede international trade and capital movements. For instance, an Indian who imports from Japan and promises to pay in yen runs the risk that the rupee price of yen will rise above expected levels. And the Japanese exporter who sells for rupees runs the risk that the yen price of rupees will fall below expected levels. Similarly, exchange risks may be even more serious for long-term capital movements. This is because under a system of flexible exchange rates borrowers and lenders will be

discouraged to enter into long-term contacts and the possibility of varying burden for servicing and repayment may be prohibitive.

5. Bo Sodersten, *Op. cit.*, pp. 403-4.

Bo Sodersten⁵ has shown how flexible exchange rates increase uncertainty for traders and have a dampening effect on the volume of foreign trade. Assume that a country is under a regime of flexible exchange rates, the general price level is stable and the balance of trade is in equilibrium. Suppose the demand for the country's exports decreases, this leads to depreciation of the country's currency which, in turn, raises import prices and brings a fall in imports. consequently, importers will be adversely affected. At the same time, exporters will gain with the increase in the prices of export goods. But the volume of exports will decline whereby they will also be losers. opposite will be the consequences when currency appreciates. Suppose there is an abnormal inflow of short-term capital to country A which tends to raise its exchange rate. This will, in turn, increase the cost of A's exports in terms of foreign currencies, thereby lowering the levels of output, employment and income in its export industries. The rise of exchange rate will also lower the cost of imports, thus discouraging output and employment in A's import competing industries. Thus importers and exporters will be at a disadvantage and the volume of trade will decline.

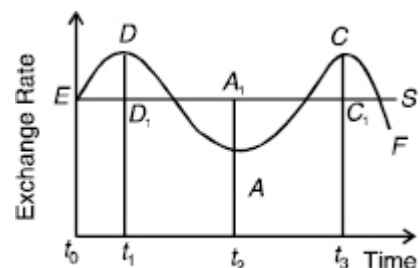


FIG. 3

This is illustrated in terms of Sodersten's diagram, shown as Figure 3. The horizontal line *S* shows stable or fixed exchange rate, and the zig-zag line *F* shows flexible exchange rate. At time t_0 the exchange rate is the same *E*, under both flexible and fixed rate systems. At t_1 the currency depreciates and the flexible exchange rate moves to *D* while the fixed exchange rate is at the same level $D_1 (= E)$. Since import prices have risen, imports will be discouraged and exports will be encouraged. At time t_2 the currency appreciates and the flexible

rate moves to A whereas the fixed rate remains at the same level A_1 ($= E$). At A import prices fall. Imports are encouraged and exports are discouraged. So exports will be at a disadvantage at A than at A_1 and importers will gain at A than at A_1 . Similar will be at time t_3 with fixed exchange rate at C_1 and the flexible exchange rate at C level. Thus fluctuations of the exchange rate around a trend value will increase risks for exports and imports that will adversely affect the volume of foreign trade.

5. Adverse Effect of Speculation. Under this system, speculation adversely influences fluctuations in supply and demand for foreign exchange. Critics argue on the basis of empirical evidence that speculation is destabilising which means that it aggravates fluctuations in exchange rate. "It is often said that speculators see a decline in the exchange rate as a signal for further decline, and that their actions will cause the movement in the exchange rate to be larger than it would be in the absence of speculation. In such a case, speculation is destabilising."⁶ Sodersten points out that "the limited experience from the 1920s seem to show that speculation at that time was destabilising. Since floating rates became common in 1973, fluctuations in exchange rates have been large. It seems that some of the excessive fluctuations have been caused by destabilising speculation." Such fluctuations increase uncertainties in trade and reduce the volume of foreign trade further.

6. Encouragement to Inflation. This system has inflationary bias. Critics argue that under a system of flexible exchange rates, a depreciation of the exchange rate leads to a vicious circle of inflation. Depreciation leads to a rise in import prices thereby making import goods more expensive. This leads to cost-push inflation. At the same time, export prices rise. Consequently, with the rise in the cost of living, money wages rise which, in turn, intensify inflation. But an appreciation of currency is unlikely to lead to a reduction in wages and prices when import prices fall. This is because wages and prices are sticky downwards. This leads to an asymmetry which produces that Triffin calls *ratchet effect* that imparts an inflationary bias to the economy.

6. C.P. Kindleberger, *International Money*, 1981.

7. Breaks the World Market. This system breaks up the world market. There is no one money which serves as a medium of exchange, unit of account, store of value and a standard of deferred payment. Under it, the world market for goods and capital would be divided. Resources allocation would be vastly sub-optimal. In fact, such a system clearly would not last long, according to Kindleberger.

8. Failure to Solve Balance of Payments Deficit of LDCs. LDCs are faced with the perpetual problem of deficit in their balance of payments because they import raw materials, machinery, capital equipments, etc. for their development. But their exports are limited to primary and other products which fetch low prices in world markets. Their balance of payments deficit can be removed in a system of flexible exchange rates if there is continuous depreciation of the country's currency.

This is illustrated in Fig. 4 where D is the country's demand curve for foreign exchange and S is the supply curve of foreign exchange. To begin, P is the point where OE exchange rate is determined. Suppose disequilibrium develops in the balance of payments of the LDC in relation to the dollar currency area. This is shown by the shift in the demand curve from D to

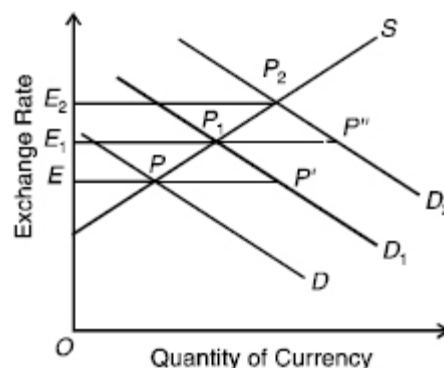


FIG. 4

D_1 and the deficit equals PP' . This means an increase in the demand for pounds and depreciation of the currency (say, Rupee) of the LDC. Now the exchange rate of Rs. - £ rises to OE_1 . This process of depreciation of the LDC currency continues with the rise in the exchange rate to OE_2 and so on. Such a policy of continuous depreciation adversely affects trade and development process in LDCs.

Conclusion. The practical use of flexible exchange rate is severely limited. Depreciation and appreciation lead to fall and rise in prices in the countries adopting them. They lead to severe depressions and inflations respectively. Further, they create insecurity and uncertainty. This is more due to speculation in foreign exchange which destabilises the economies of countries adopting flexible exchange rates. Governments, therefore, favour fixed exchange rates which require adjustments in the balance of payments by adopting policy measures.

4. HYBRID OR INTERMEDIATE EXCHANGE RATE SYSTEMS

There are a number of hybrid or intermediate exchange rate systems between the two extremes of rigidly fixed and freely floating (or flexible) exchange rates. They have been put into operation from time to time after the establishment of the IMF to remove the defects inherent in the two extreme systems.⁷ Following a middle path, they come under *managed or controlled floating system*. Under this system, the monetary authority (central bank) intervenes in the foreign exchange market to smooth out short-run fluctuations in exchange rates. This is done by supplying or absorbing the country's foreign exchange reserves. If the short-run demand for foreign exchange in the market is more than its supply, the monetary authority supplies the foreign exchange reserves in the market, thereby moderating devaluation of its currency. On the other hand, if the short run supply of foreign exchange is more than its demand in the foreign exchange market, it will absorb (purchase) the excess supply, increase its reserves, thereby moderating appreciation of the country's currency. This policy of managed floating is also called the *policy of leaning against the wind*.

The policy of managed floating has a number of variants.

⁷ For their historical evolution, refer to the last section in the present chapter.

ADJUSTABLE PEG SYSTEM

It is a system in which exchange rates are pegged or fixed for a period of time. However, if a deficit or surplus of balance of payments (BoP) becomes substantial, the exchange rate is devalued or revalued. Under it, a country tries to maintain a fixed exchange rate until all its foreign exchange reserves are exhausted. If a fundamental disequilibrium in BOP still persists, the currency can be repegged at a lower or higher exchange rate. Adjusting the currency at a lower rate is called *devaluation* and at a higher rate *revaluation*. Thus under this system, exchange rate flexibility is maintained along with exchange rate stability.

The working of the adjustable peg system is explained in Fig. 5 where the quantity of foreign exchange (pounds) is taken along the horizontal axis and exchange rate (dollar prices of pound) on the vertical axis. D and SS' are the original demand and supply curves which determine the pegged exchange rate E at point T . If the demand for foreign exchange increases, the demand curve shifts from D to D_1 and D_2 , but the exchange rate remains pegged at E . This is because

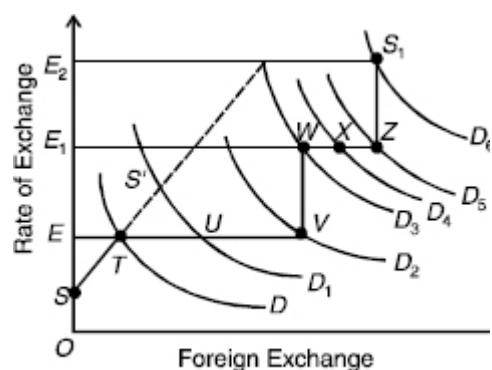


FIG. 5

the monetary authority sells its foreign exchange reserves to meet the increased demand and support this exchange rate. The supply curve moves horizontally from point T to U and to V where the country exhausts all its foreign exchange reserves. But it is not possible for the monetary authority to support this pegged exchange rate E_1 if the demand for foreign exchange further rises from D_2 to D_3 . It will devalue its currency and repeg the exchange rate E_1 . The supply curve moves vertically from V to W . If the demand for foreign exchange continues to increase from D_3 to D_4 and D_5 , the exchange rate E_1 is held on by using the country's foreign exchange reserves and the supply curve moves horizontally from point W to X and to Z . If the demand for foreign exchange increases further to D_6 , there will be another devaluation of the currency and the exchange rate will be repegged at another higher level E_2 . The supply curve will rise

vertically from Z to S_1 . Thus the supply curve under the adjustable peg system will be zig-zag shaped, as $STUVWXZS_1$.

MERITS

The adjustable peg system helped the IMF member countries during the long boom of the 1950s and 1960s. On this basis, it has the following advantages:

- 1. No Uncertainty.** Since rates are fixed for many years under this system, uncertainty is reduced and trade is encouraged.
- 2. Check of Inflation.** The system of pegged rates being followed by all countries helps to bring about harmonisation of policies among them. Consequently, the world inflation remains under control.
- 3. Avoiding Depression and Protection.** Countries can devalue their currencies in the event of a severe deficit in their balance of payments. Thus they are able to avoid depression. This also prevents them from adopting protectionist policies.

WEAKNESSES

This system of adjustable pegs has many flaws in its working.

- 1. Vague Definition.** There was no operational definition of “fundamental disequilibrium.” But it came to be interpreted by the IMF as meaning a persistent chronic deficit that could be ultimately corrected by devaluation.
- 2. Reluctance to Change Exchange Rates.** There was reluctance on the part of both deficit and surplus countries to change exchange rates so as not to harm their interest.
- 3. Dollar Accumulation.** Countries other than the United States wanted to increase their reserves which led to dollar holdings to a greater extent than needed by them. This was because dollar was a *numeraire* of the system.

4. Destabilising Speculation. This system, as it operated in the 1960s, led to destabilising speculation and consequently made controls over capital movements ineffective.

5. Expenditure-Reducing Policies. One basic flaw of this system was the insistence by the IMF on expenditure-reducing policies and the reluctance to use expenditure switching policies for correcting disequilibria.

6. Fixity of the Peg. In the adjustable peg system, the emphasis was on the fixity of the peg rather than its adjustment.

7. Over Optimistic. Since the governments identified deficits in balance of payments as “fundamental”, they were often optimistic about balance of payments position in the future which led to the failure of this system.

CRAWLING PEG SYSTEM

It is a system in which the monetary authority adjusts the exchange rate gradually. It adjusts the peg frequently at regular time intervals by small amounts instead of making large devaluations or revaluations when the equilibrium exchange rate changes. This is also known as *Trotting Peg* or *Gliding Parity System*.

This is explained in Fig. 6 where the SS' curve intersects the D curve at point K and the equilibrium exchange rate is E . This rate E is pegged between points K and L by selling foreign exchange reserves when the demand for foreign exchange increases to D_1 . With a further increase in demand to D_2 , the exchange rate is repegged to E_1 . The monetary authority resorts to a small devaluation between point L and M . This exchange rate remains pegged at E_1 between points M and N by selling foreign

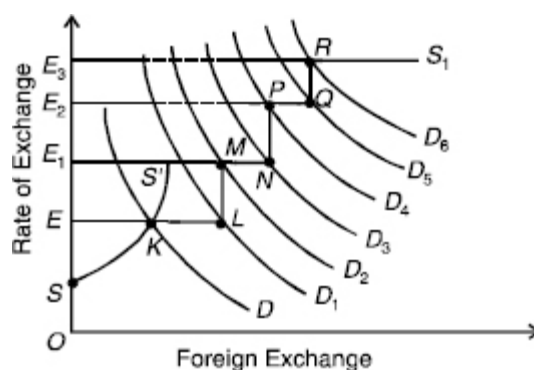


FIG. 6

exchange reserves when the demand for foreign exchange rises further to D_3 . With continuous increase in the demand for foreign exchange to D_4 , D_5 , and D_6 , the process of repegging the exchange rate at E_2 and E_3 levels and so on will continue by selling foreign exchange reserves and by small doses of devaluation at each step. Thus under the crawling peg system, we move along the supply curve in small steps, such as $KLMNPQRS_1$.

This system is better than the adjustable peg system because the country resorts to small doses of inflation instead of large devaluation, as under the latter system.

CLEAN FLOAT SYSTEM

Under this system, the exchange rate is determined by the free market forces of demand and supply of foreign exchange. The exchange rate moves up and down freely without any intervention by the monetary authority. Thus it is simply the system of free floating exchange rate. The working of the clean float system is explained in Fig. 7 where the original demand and supply curves D_1 and S_1 of foreign exchange (pounds)

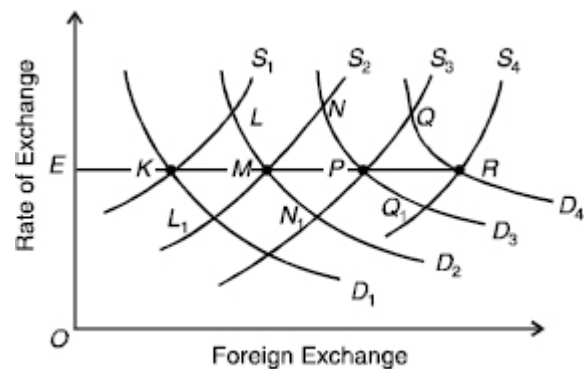


FIG. 7

determine the equilibrium rate E at point K . When there are surpluses or deficits in balance of payments, the demand and supply curves for foreign exchange shift to the right to D_2S_2 , D_3S_3 and D_4S_4 , and so on. Consequently, the exchange rate moves upward along the path of points $KLMNPQR$ in case of surpluses of BOP. On the other hand, it moves along the downward path of points $KL_1MN_1PQ_1R$ in case of BOP deficits. In both the situations, the exchange rate fluctuates around the E level of exchange rate.

DIRTY FLOAT SYSTEM

Under this system, the exchange rate is basically determined by the free market forces of demand and supply of foreign exchange. But the monetary authority intervenes from time to time to control excessive fluctuations in exchange rate. The monetary authority allows an *orderly* exchange rate adjustment when there are major changes in demand and supply of foreign exchange. But at the same time, it prevents violent fluctuations that may occur under free floating of exchange rate. The monetary authority intervenes through the sale and purchase of foreign exchange in the market. But it does allow variations in the exchange rate which moves directly from point *K* to *M*, from *M* to *P* and from *P* to *R*, as shown in Fig. 7*. As the demand for foreign exchange increases and the demand curve shifts upwards, the monetary authority sells the foreign exchange. As the supply of foreign exchange increases and the supply curve shifts to the right, the monetary authority purchases foreign exchange equal to the gap between points *K* and *M*, *M* and *P* and *P* and *R* and thus stabilises the exchange rate at *E* level.

FILTHY FLOAT SYSTEM

When the monetary authority is compelled to intervene heavily under frequent and high fluctuations, it is called a filthy float.

JOINT FLOAT SYSTEM

Under the system of joint float, a group of countries have an adjustable peg system between their *own* currencies but they have a joint float against other countries. This system is in use under the European Monetary System where its exchange rate mechanism has an adjustably pegged exchange rate band with member countries but a joint float against other currencies of the world.

* In the case of a “note” on this system points, LL_1 , NN_1 and QQ_1 are not to be shown in the figure.

EXCHANGE RATE BAND

There is another system called the exchange rate band. In this system, the currency is allowed to fluctuate between an upper and lower exchange rate about the established par value. But it is not allowed to move outside this band. Suppose the par value of exchange rate is fixed at £ 1 = \$ 2

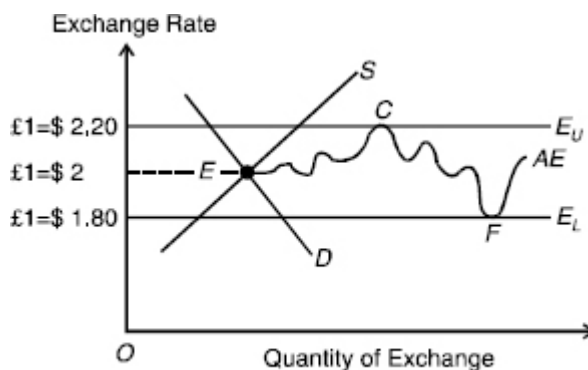


FIG. 8

by the monetary authority. It also sets a lower limit £ 1 = \$ 1.80 and an upper limit £ 1 = \$2.20 to the exchange rate within which it is allowed to fluctuate freely. These limits represent the exchange rate band. The exchange rate band can be narrow or wide.⁸ So long as the exchange rate moves within the band, the monetary authority does not intervene. It is only when the exchange rate hits the ceiling or the floor of the band that it intervenes. This is explained in Fig. 8 where E is the equilibrium exchange rate (£ 1 = \$ 2). The line E_U represents the upper limit of the band and E_L the lower limit. The actual exchange rate AE is allowed to move freely within this band. When the exchange rate reaches the upper band E_U at point C , the monetary authority will supply more pounds to keep the exchange rate within the band. When the exchange rate reaches the lower band E_L at point F , the monetary authority uses its foreign currency reserves to demand pounds to keep the exchange rate within the band.

We have explained above the exchange rate band system under the fixed exchange rate system which can also be extended to the adjustable peg and crawling peg systems.

SNAKE IN THE TUNNEL

The six original *EEC* member countries started an exchange rate system similar to the joint float in 1972 which was known as *snake in the tunnel*. Under this, there was a band within the band. They allowed their currencies to fluctuate within 2.25% band relative to one-another and 4.5% relative to other currencies of the world. So

fluctuations of their currencies between their band within the higher band appeared like the movement of a snake within a tunnel.⁹

5. MULTIPLE EXCHANGE RATES SYSTEM

It is a system under which a country adopts different rates of exchange for import and export of different commodities. A country may adopt controlled rate of exchange with some countries and free exchange rates with others. The exchange rates do not fluctuate but several fixed exchange rates and their categories may exist. Completely free and floating exchange rates may also be possible for certain transactions with some countries. The objectives of multiple exchange rates are to obtain the maximum foreign exchange by maximising exports and minimising imports to correct the balance of payments deficit.

⁸. For instance, the Smithsonian Agreement fixed the margin of fluctuations of the exchange rates to 2.25% above or below the par values of rates in 1971 and widened them to 4.5% in 1973.

⁹. If in Fig. 8 one st. line above E_U and another below E_L is drawn at equi distance, the figure will depict this system.

MERITS

The main merits of multiple exchange rates system are as follows :

1. Promotion of Exports. Even though devaluation may also be used for promoting exports but it makes imports costly and exports cheaper. But under the multiple exchange rates system, the best exchange rates can be obtained for different exports and imports. The country can obtain full advantages of elasticities of demand and supply which are favourable to it. Thus this system is more effective than devaluation.

2. Imports Profitable. A developing country has little to export but it has to import capital goods, raw-materials, technical know-how and

even consumption goods on a large scale. Its imports have an inelastic demand. So it wants to enlarge the import of above goods and restricts that of luxury and other consumer goods to raise its development potential.

3. Correcting Balance of Payments Deficit. The above discussion makes it obvious that under the multiple exchange rates system maximum foreign exchange may be earned from exports and minimum possible payments can be made for import. Thus the balance of payments deficit can be corrected.

4. For Particular Country. Specially in a situation where a country has a balance of payments surplus but deficit with a particular country, the deficit can be controlled by lowering the exchange rate of commodities exported to and imported from that particular country. Thus the problem of deficit or surplus in balance of payments can be solved through the multiple exchange rates system.

5. Capital Formation. Capital goods and necessary inputs can be imported at cheaper rates through the system of multiple exchange rates. On the other hand, high export earnings may also be utilised for capital formation.

6. Capital Flows. Multiple exchange rates may be very helpful to achieve a higher capital inflow from one country and to restrict capital outflow to another country. In such a case, a higher rate of exchange would be applicable to the former and a lower exchange rate to the latter. It may also be used for channelising foreign capital into favourable lines of production.

7. Helpful for Weak Industries. Weak or declining industries can be lifted with the help of multiple exchange rates system. They may get protection or export subsidies and import capital goods, raw materials and technical know-how at some preferential and favourable rates of exchange under this system.

8. Diversifying the Economy. The system encourages the diversification of industries through favourable exchange rates. It

provides protection to weak industries from foreign competition. It can help in developing new export goods industries, processing and defence industries. Commodities of mass consumption can also be produced. Thus it can diversify the economy and raise output, employment and income in the economy.

9. Maximising Revenues. The multiple exchange rates system enables the government to earn more revenues. Since this system encourages the expansion and diversification of industries, and increases output, employment and income, the government earns larger revenues from excise duties, sales tax, corporation tax, personal taxes, etc.

10. Favourable Terms of Trade. A country may secure more favourable terms of trade under this system. That is why it can be used for keeping prices of export goods at a higher level and prices of import articles at a lower level.

11. Improvement of Standard of Living. Since the import of capital goods, raw materials, etc. can be obtained at low prices under this system, their cost of production is low. Similarly, essential consumer goods for mass consumption are imported cheap. These tend to reduce the cost of living and raise the standard of living of the people.

DEMERITS

The multiple exchange rates system has the following demerits :

1. Administrative Difficulties. In this system, large number of different exchange rates exist for variety of goods and for different countries. To administer them requires large administrative machinery. This involves a complex exchange control system which leads to administrative inefficiencies, red-tapism and corruption.

2. Discriminatory. This system is discriminatory because it discriminates between commodities, industries, sectors, regions and countries. The same commodity may be exported to a country at a

different rate than to another country. This is likely to lead to retaliation by the other country and so adversely affect their trade and political relations.

3. Harmful for Domestic Industries. A country may import commodities at cheap rates from abroad which may harm the domestic industries as they cannot face foreign competition.

4. Not Helpful for Exports. If the demand for exports is elastic or if exports have inelastic supply in the domestic market or if foreign importers form a monopsony or oligopoly, multiple exchange rates will be of no help to the country in increasing its exports.

5. Black Marketing. This system leads to black marketing of foreign exchange. Importers buy foreign exchange at lower rates because the exchange rate for essential imports is low. But they sell foreign exchange at high rates in the foreign exchange market.

6. Limits to Different Rates. It is not possible for the monetary authority to fix different exchange rates for a large number of exportable and importable commodities. So they are classified in small categories or groups. Their classification may be arbitrary and lead to corruption for every exporter or importer would like to have his commodity in the favourable exchange rate category.

7. Less Effective in BOP. The multiple exchange rates system is less effective than quantitative restrictions like export and import licenses, exchange controls, etc. in reducing BOP deficit.

8. Accumulation of Inventories. This system leads to accumulation of inventories. When exporters do not export their goods in anticipation of more favourable exchange rates being announced by the monetary authority, it leads to stock-piling of goods in godowns. This adversely affects production and leads to losses.

9. Not a Sufficient System. The multiple exchange rates system is not sufficient for economic development of LDCs. In such countries, the demand for essential imports is inelastic so the exchange rates

for their imports cannot be lowered. On the other hand, their capacity to export is limited. So they cannot increase the exchange rates for their exports. That is why such countries suffer from shortage of foreign exchange.

Conclusion. On the whole, the multiple exchange rates system leads to malallocation of resources, reduces economic efficiency and gains from trade of the country adopting it. That is why, this system is no longer in use.

6. EXCHANGE RATE REGIMES IN PRACTICE

During the period preceding World War I almost all the major national currencies were on a system of fixed exchange rates under the international gold standard. This system had to be abandoned during World War I but most nations returned to pegged rates during the 1920s. **Adjustable Peg.** With the establishment of the IMF under the Bretton Woods Agreement after World War II, exchange rates between countries were set or pegged in terms of gold or the US dollar at \$ 35 per ounce of gold. This related to a fixed exchange rate regime with changes in the exchange rate within a band or range from 1 per cent above to 1 per cent below the par value. But this was only allowed when the country could convince the IMF authorities that there was “fundamental disequilibrium” in its balance of payments. Member countries were forbidden to impose restrictions on payments and trade, except for a transitional period. They were allowed to hold their monetary reserves partly in gold and partly in dollars and sterling. These reserves were meant to incur temporary deficits by member countries while keeping their exchange rates stable. This system of adjustable pegs had many flaws in its working which led to the collapse of the Bretton Woods system in 1971 when the US Treasury refused to convert short-time liabilities into gold and made the dollar inconvertible.

Managed Floating. The system of adjustable peg continued till 14 August, 1971. Between 15 August, 1971 and the Smithsonian

Agreement of 18 December, 1971, 48 countries including the United States, Japan and a large number of European countries abandoned fixed exchange rates. The 'Group of Ten' industrial countries met at the Smithsonian Institution in Washington on 18-19 December, 1971 and agreed to a new system of stable exchange rates with *wider bands*. As a first step towards realignment of major currencies, the US devalued the dollar by 8 per cent, the Japanese revalued the yen by 17 per cent and the Germans their mark by 14 per cent. The Smithsonian Agreement widened the margin of fluctuations of the exchange rates to 2.25 per cent above or below the new parities of central rates. In 1973, the band was widened to 4.5 per cent.

Another development took place in Europe when the original six EEC member countries decided to limit the fluctuations of their currencies relative to each other to a smaller band in 1972. This came to be known as “ *the snake in the tunnel*”. Under this arrangement, the EEC currencies were tied together and could fluctuate within narrow limits in relation to one another but could fluctuate in relation to other currencies within the limits set by the band proposal. But due to the lack of convergence between them and world oil crisis and high inflation around the world, this system collapsed.

The Smithsonian Agreement broke down following the US dollar devaluation of 12 February, 1973. At the beginning of March 1973 India, Canada, Japan, Switzerland, the UK and several smaller countries had floating exchange rates. However, the “joint float” of the EEC countries continued even after March 1973 and was now called the “ *snake in the lake*”, as there was no band within which the EEC currencies could fluctuate relative to other currencies. In March 1979 the European Monetary System (EMS) was formed which created the European Currency Unit (ECU) which is a “basket” currency of a unit of account consisting of the major European currencies. Each member of the EMS fixes the value of its currency in terms of the ECU which is a pegged system of exchange rates among members' currencies.

In the meantime, the Jamaica Agreement of January 1976 formalised the regime of floating exchange rates under the auspices of the IMF. A number of factors forced the majority of member countries of the IMF to float their currencies. There were large short-term capital movements and central banks failed to stop speculation in currencies during the regime of adjustable pegs. The oil crisis in 1973 and the increase in oil prices in 1974 led to the great recession of 1974-75 in the industrial countries of the world. As a result “the dollar went into a rapid decline, which, by late 1978, had such alarming proportions that the United States government finally decided on a policy of massive intervention in order to prevent a further fall in the value of the dollar and to head off a possible financial panic”. At last, the system of floating exchange rates had come to stay by 1978.

By the Second Amendment of the IMF Charter in 1978, the member countries are not expected to maintain and establish par values with the dollar or SDRs or another denominator, cooperative arrangements to maintain the value of their currencies in relation to the value of currencies of other members, and other exchange arrangements of a member's choice. The Fund has no control over the exchange rate adjustment policies of the member countries to counter disorderly conditions in the foreign exchange markets. But it lays down principles for the guidance of members' exchange rate policies. In other words, it exercises international “surveillance” of exchange rate policies of its members.

However, the system of floating exchange rates is not one of free flexible exchange rates but of “managed floating”. It has rarely operated without government intervention. Periodic intervention by governments has led the system to be called a “managed” or “dirty” floating system. In 1977, when the intervention was very heavy, it was characterised as a “filthy” float. When governments do not intervene, it is a “clean” float. But the possibilities of a clean float are very remote. Thus a system of managed floating exchange rates is evolving where the central banks are trying to control fluctuations of

exchange rates around some “normal” rates even though the Second Amendment of the Fund makes no mention of normal rates.

The international experience with floating rates is difficult to evaluate, because it has been punctuated by large shocks, high inflation rates and deep recessions. Even the efforts of governments to limit exchange rate fluctuations have been marked by disagreements and have not been successful.

EXERCISES

1. Give arguments for and against a system of fixed exchange rates.
2. Do you favour flexible or fixed exchange rates? Give reasons in support of your answer.
3. What are multiple exchange rates? Give their merits and demerits.
4. Distinguish between : adjustable peg and crawling peg; clean float and dirty float; joint float and snake in the tunnel systems.
5. Write notes on : exchange rate band; snake in the tunnel; dirty float; clean float.
6. Explain the working of the system of adjustable peg. What led to the adoption of the system of managed floating exchange rates?



DEVALUATION

1. MEANING

Devaluation refers to a reduction in the external value of a currency in terms of other currencies. Under it, there is no change in the internal purchasing power of the currency. A country with fundamental disequilibrium in its balance of payments may devalue its currency in order to increase its exports and discourage imports. With devaluation, the domestic price of imports in the devaluating country increases and the foreign price of its exports falls. Consequently, the exportable commodities of the country become cheaper abroad because the foreigners can buy more goods by paying less money than before devaluation. This encourages exports. On the other hand, the goods which the country imports become dearer than before. This discourages imports. Thus when exports increase and imports fall with devaluation, the balance of payments of the country moves towards equilibrium.

It may be understood with the help of an example. Before devaluation of the Indian rupee on 6 June, 1966, the exchange rate between the Indian rupee and the U.S. dollar was Re. 1 = 21 cents. After devaluation, this rate became Re. 1 = 13.3 cents. As a result, U.S. imports became dearer for India. Before devaluation, India bought goods worth 21 cents in exchange for Re. 1. But after devaluation, it could buy goods worth only 13.3 cents for Re. 1. As a result, U.S. imports fell, having become dearer. On the other hand,

Indian exports became cheaper in America because the U.S. traders could buy goods worth Re. 1 from India by paying 13.3 cents instead of 21 cents. As a result, Indian exports increased. Thus with the increase in exports and decrease in imports, the disequilibrium in the balance of payments is reduced¹.

2. EFFECTS OF DEVALUATION

The effects of devaluation on the balance of payments of a devaluing country depend on price elasticities of demand and supply in export and import markets.² Economists have explained a number of situations which are explained below:

¹. Devaluation is also referred to as expenditure-switching policy. For this, see Ch. 30.

². These effects relate to the Elasticities Approach.

EFFECTS OF DEVALUATION ON EXPORTS

It is the extent of price elasticity of demand for the devaluing country's exports which determines whether its export earnings increase, fall or remain unchanged.

1. Inelastic Demand for Exports. If the elasticity of foreign (U.S.) demand for exports of the devaluing country (India) is *perfectly inelastic*, devaluation will have an adverse effect on its balance of payments. This is illustrated in Figure 1 where the curve D_x indicates inelastic demand for exports and S_x is the perfectly elastic supply curve for exports before devaluation. Both these curves intersect at point E and OR exchange rate is determined. OX is the volume of exports before devaluation. After devaluation, the price of exports in terms of foreign

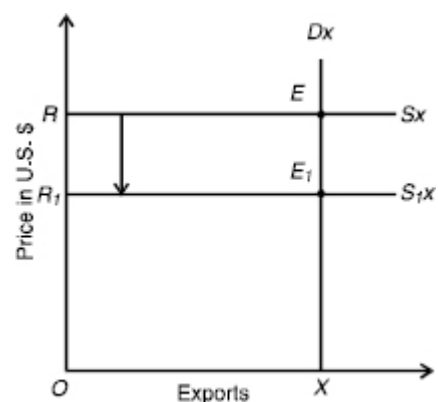
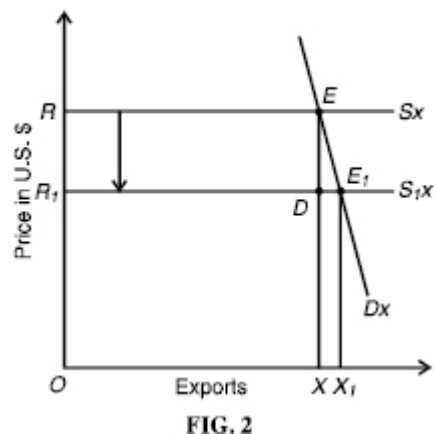


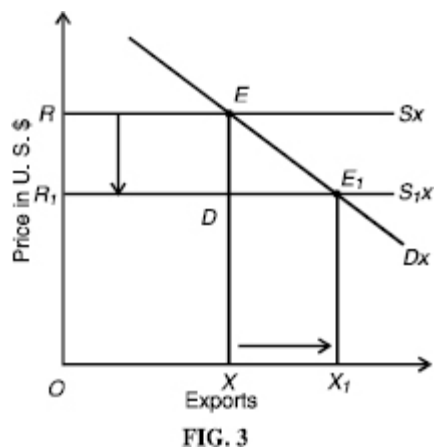
FIG. 1

currency (\$) falls to OR_1 . The supply curve for exports shifts downward to S_1x and cuts the Dx curve at E_1 . The figure shows that after devaluation, there is no change in the volume of exports. It is OX . To measure the effect of devaluation on the balance of payments, the total value received from exports before and after devaluation is compared. The total value of exports before devaluation is $OXER$ and $OXER$ after devaluation. As is clear from the figure, the total value of exports before devaluation ($OXER$) is greater than the total value of exports after devaluation (OXE_1R_1) : $OXER > OXE_1R_1$. It proves that devaluation has an adverse effect on the balance of payments of the country devaluing its currency because its export earnings have decreased.

2. Less Elastic Demand for Exports. If we take a less elastic demand curve of exports, the result will be the same, as in the above case. Figure 2 shows that the total export earnings before devaluation are greater than that after devaluation : $OXER > OX_1E_1R_1$. The total loss from export earnings is RR_1DE ($= OXER - OXER$). The effect on balance of payments has been adverse.



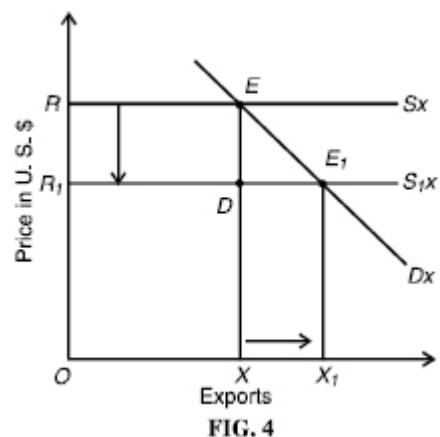
3. Elastic Demand for Exports. If the foreign demand for exports is elastic or greater than unity, devaluation will improve the balance of payments, as shown in Figure 3. OX volume is exported before devaluation and OX_1 after devaluation. With the fall in the exchange rate from OR to OR_1 , the total value of exports after devaluation ($OX_1E_1R_1$) is more than the total value of exports after devaluation ($OXER$), i.e. $OX_1E_1R_1 > OXER$. Thus given the perfectly elastic



supply of exports, if the demand for exports is greater than unity, devaluation has a favourable effect on the balance of payments.*

4. Unity Elasticity of Demand for Exports.

If the elasticity of demand for exports is unity, there is no effect on the balance of payments with devaluation. This is because there is no change in the total value of exports after devaluation. This is shown in Figure 4 where the loss in export earnings RR_1DE equals the gain in export earnings XX_1E_1D after devaluation. Thus, the total value of exports before devaluation, $OXER = OX_1E_1R_1$, the total value of exports after devaluation.



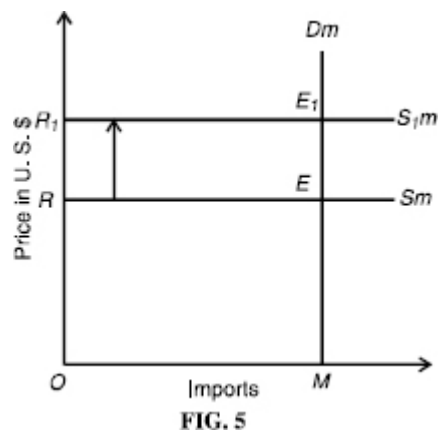
* It can also be explained as : gain in export earnings, $XX_1E_1D > RR_1DE$, loss in export earnings due to devaluation.

EFFECTS OF DEVALUATION ON IMPORTS

Now we explain the effects of different elasticities of demand for imports on the balance of payments of a devaluating country.

1. Inelastic Demand for Imports.

Devaluation raises the price of imports in the devaluating country which will import less goods than before. If the demand for imports is *perfectly inelastic*, it cannot reduce its imports even when they have become costlier. There will be loss instead of gain from devaluation when the demand for imports is perfectly inelastic. This is shown in Fig. 5, where Dm is the perfectly inelastic demand curve for imports and Sm is the perfectly elastic supply curve for imports. With devaluation, the supply curve shifts



upwards to S_1m because imports are reduced with increase in import price from OR to OR_1 . This makes the total value of imports (OR_1E_1M) after devaluation greater than the total value of imports ($OREM$) before devaluation : $OR_1E_1M > OREM$. Thus with the increase in the total value of imports after devaluation, the balance of payments of the devaluing country has worsened with perfectly inelastic demand for imports.

2. Less Elastic Demand for Imports. If the elasticity of demand for imports is less than unity, the balance of payments worsens with devaluation. This is shown in Fig. 6 where the total value of imports (ORE_1M_1) after devaluation is greater than the total value of imports ($OXER$) before devaluation : $ORE_1M_1 > OREM$.

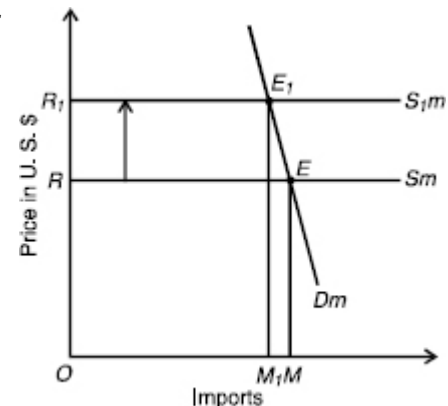


FIG. 6

3. Elastic Demand for Imports. If the elasticity of demand for imports is greater than unity, the effect of devaluation on the balance of payments will be favourable. This is shown in Fig. 7, where the total value of imports after devaluation ($OR_1E_1M_1$) is less than the total value of imports ($OREM$) before devaluation : $OR_1E_1M_1 < OREM$.

4. Unity Elasticity of Demand for Imports. If the elasticity of demand for imports is equal to unity, the total value of imports before devaluation and after devaluation remains the same and there is no effect of devaluation on the balance of payments. This is illustrated in Fig. 8 where the total value of imports before devaluation, $OMER$ = OM_1E_1R , the total value of imports after devaluation.

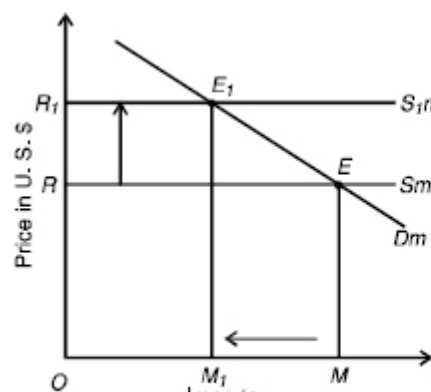


FIG. 7

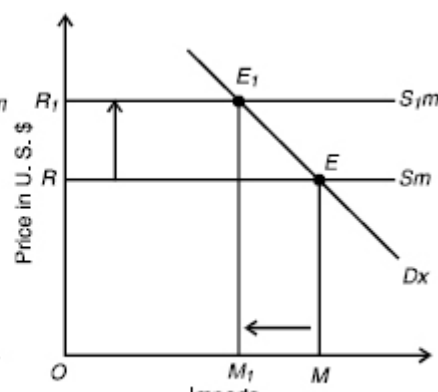


FIG. 8

THE J-CURVE EFFECT

The effects of devaluation discussed above in terms of the elasticities of demand and supply for exports and imports do not take into consideration the *period* over which devaluation affects the balance of payments of the country. However, economists are unanimous that at first devaluation makes the balance of payments deficit *worse* in the *short run* and then *improves* it in the *long run*. This may be due to low demand and supply elasticities for exports and imports in the beginning. This is because immediately after devaluation few more exports may be sold and more will have to be paid for imports. Both exports and imports will take sometime to adjust to the new situation. Thus when devaluation causes the balance of payments to worsen in the beginning and then to improve it, there is the *J-Curve Effect*. This is illustrated in Fig. 9, where time is taken on the horizontal axis and deficit-surplus on the vertical axis. Devaluation takes place at time T . In the beginning, the curve J has a big loop which shows increase in balance of payments deficit. It is only after time T_1 that it starts sloping upwards and the deficit begins to reduce. At time T_2 there is equilibrium in the balance of payments and then the surplus arises. Thus the curve so formed is *J-shaped*.*

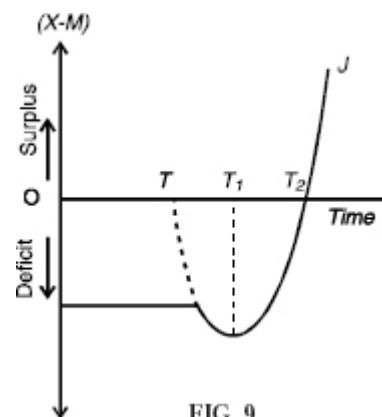


FIG. 9

TERMS OF TRADE EFFECT OF DEVALUATION

Whether devaluation improves or worsens the terms of trade^{**} of a country depends on demand and supply elasticities for exports and imports. The following relationships explain the effect of devaluation on the terms of trade :

(a) Devaluation *improves* the terms of trade, if demand elasticities for exports and imports are *greater* than supply elasticities for exports and imports.

* There are three effects of devaluation : real cash balance, money illusion and income redistribution effect. Students should read the *Absorption Approach*.

** Terms of trade mean the ratio of export prices and import prices, i.e. P_x / P_m .

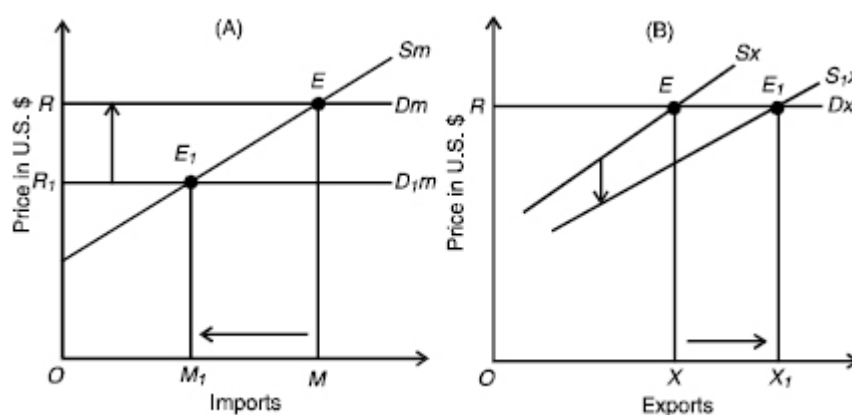


FIG. 10

(b) Devaluation *worsens* the terms of trade, if demand elasticities of exports and imports are *less* than supply elasticities for exports and imports.

(c) Devaluation has no effect on the terms of trade, if demand and supply elasticities for exports and imports are equal.

Thus the effect of devaluation on terms of trade can be understood by comparing demand and supply elasticities for exports and imports. For this, we study two special situations. **Prices Fixed in Buyer's Currency.** If export and import prices are fixed in buyer's

(U.S.) currency (\$), the terms of trade of the devaluing country (India) improve. When a country devalues its currency, the foreign buyer of its exports faces a fixed currency price and fixed quantities of sales. But it saves foreign exchange on import of goods because foreign currency prices are lower. But if prices are fixed in buyer's currency over the long run and the demand elasticities are infinite, exports rise and imports fall, and the terms of trade improve. When prices are fixed in buyer's (U.S.) currency, devaluation cannot affect the foreign currency price of exports of the devaluing country (India) and its exports increase. On the other hand, the foreign currency price of imports will be reduced equal to the percentage of devaluation which will reduce imports. Thus, with exports increasing and their prices being fixed, and imports declining along with their prices, the terms of trade will improve. This is illustrated in Fig. 10 (A) and (B). In Panel (A), Dm is the infinite demand curve for imports and Sm is the supply curve of imports. Both intersect at point E and determine OM quantity of imports before devaluation. Panel (B) shows the determination of OX quantity of exports before devaluation when the demand curve for exports Dx cuts the supply curve of exports Sx at point E . When there is devaluation and prices being fixed in terms of buyer's currency, the demand for imports falls which is shown by the shifting of the Dm curve below to D_1m in Panel (A). As a result, the new equilibrium is set at point E_1 and imports are reduced from OM to OM_1 . On the other hand, the supply of exports increases due to devaluation which shifts the supply curve of exports from Sx to S_1x in Panel (B). E_1 is the new equilibrium point which shows increase in exports from OX to OX_1 . Thus the prices of exports being fixed in terms of the buyer's currency (\$), the terms of trade have improved with the reduction in imports by MM_1 and increase in exports by XX_1 , as is clear from Panels (A) and (B) of the figure.

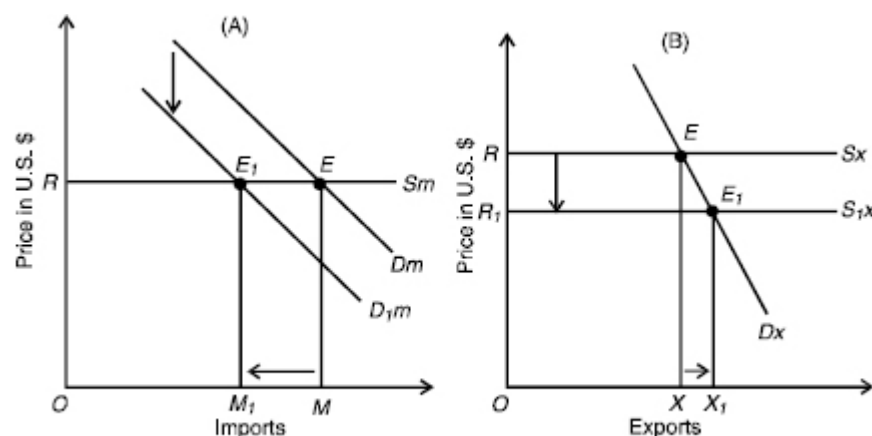


FIG. 11

Prices Fixed in Seller's Currency. If prices are fixed in seller's currency after devaluation, it means that the devaluing country (India) maintains the same (rupee) price of its exports. It accepts lower prices in terms of foreign currency (dollar) for its exports and pays more for imports. Thus its terms of trade worsen. This is possible if the supplies and exports are *perfectly elastic* and the demands for imports and exports are *less elastic*. Take Figure 11 (A) where S_m is the perfectly elastic supply curve of imports and D_m is the less elastic demand curve for imports. The country is importing OM quantity before devaluation. Prices being fixed in seller's currency, there is no effect on the price of foreign currency (\$) after devaluation which remains the same (OR). But the demand for imports declines in the devaluing country (India). This is shown by the shifting of the D_m curve downwards to D_{1m} . As a result, imports decline from OM to OM_1 . Now take exports in Panel (B) where the increase in exports due to devaluation is shown by the shifting of the supply curve for exports from S_x to S_{1x} . This establishes the new equilibrium at E_1 with the D_x curve and exports increase from OX to OX_1 . But export earnings from the increase in exports by XX_1 (in Panel B) may not be so high as to improve the terms of trade from reduction in imports by MM_1 . The net foreign earnings from devaluation may have declined or remained the same as before devaluation. In such a situation, the terms of trade worsen. But if the demand for exports is elastic or the demand curve is flatter, as in Fig. 3, the terms of trade will improve.

INCOME EFFECTS OF DEVALUATION

It is difficult to measure the exact effects of devaluation on national income because this analysis is based on numerous arguments. Apparently, devaluation leads to a rise in the real volume of exports and decline in the real volume of imports of the devaluing country. Consequently, with the expansion of export and import-competing industries of the country, income increases. The additional income so generated will further increase income via the multiplier effect. This will lead to an increase in domestic consumption and saving. The national income identity in an economy is National Income

$$Y = C + I$$

$$= C + I_d + I_f \quad (I = I_d + I_f)$$

where C is consumption, I_f is foreign investment and I_d is domestic investment

or

$$Y = C + I_d + (X - M) \quad (I_f = X - M) \quad \dots(1)$$

where X represents exports and M imports.

But

$$Y = C + S \quad \dots(2)$$

where $(X - M)$ is the balance of payments on current account and $(S - I)$ is the marginal propensity to save.

The income effect of devaluation is explained in Fig. 12. In an open economy, the equilibrium condition is when the difference between exports and imports $(X - M)$ is equal to the difference between saving and domestic investment $(S - I_d)$. Suppose the economy is operating at Y level of national income and has deficit in the balance of payments equal to OB as determined by the interaction of $(X - M)$ and $(S - I)$ curves at point E . To correct this deficit, the country devalues

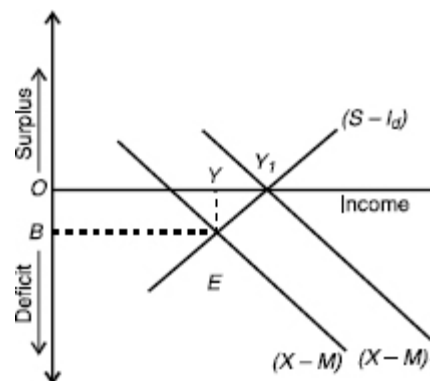


FIG. 12

its currency so that its exports increase and imports decline. This tends to shift the $(X - M)$ curve upwards to $(X - M)_1$ which intersects the unchanged $(S - I)$ curve at Y_1 . This shows that the national income has increased from Y to Y_1 as a consequent of devaluation with exports rising and imports declining.

But the effects of devaluation on national income are not so simple and clear. In fact, the increase in national income due to devaluation is related to the terms of trade and trade balance. The conditions under which devaluation worsens the terms of trade, national income will be adversely affected and the conditions which improve the terms of trade, national income will increase. If there is no change in the terms of trade even after devaluation, national income will only increase if the trade balance improves. If prices are fixed in seller's currency after devaluation, the terms of trade move against the country and equal the full percentage of devaluation. The rise in national income is minimum. This situation is based on the assumption that the supply elasticities are infinite and demand elasticities are low. (See Fig. 11 in the above section). When the terms of trade worsen, the balance of trade also deteriorates and national income falls. The fall in national income with the worsening of the terms of trade can also be understood in terms of its effects on national welfare. If it costs more units of exports and more exports and resources to manufacture exportable goods to pay for imports after devaluation, people feel poorer despite the increase in their incomes, due to the rise in exportable and import-competing goods. When they feel poorer than before, they reduce their expenditure on domestic goods. This leads to the lowering of national income.

On the other hand, devaluation raises national income by improving the terms of trade. Suppose the prices are fixed in buyer's currency after devaluation. In such a situation, the terms of trade improve by the full percentage of devaluation because exports increase and imports decline. The balance of trade improves and national income rises. It happens when the demands for exports and imports are perfectly elastic. (See Fig. 10 above).

Thus the effect of devaluation on national income depends on whether devaluation improves or worsens the terms of trade and trade balance. If the terms of trade worsen, national income will fall. For the national income to rise after devaluation, the terms of trade should improve or remain the same.

3. CONDITIONS FOR THE SUCCESS OF DEVALUATION*

Devaluation is an important measure to remove disequilibrium in the balance of payments. But its success depends on some essential conditions which are discussed below.

* For Theories of Devaluation, read *Elasticity Approach and Absorption Approach* in the Chapter.

1. More than Unity Elasticity of Demand for Exports and Imports. As we studied above, the effect of devaluation on balance of payments is favourable only when the elasticity of demand for exports and imports is more than unity. If the elasticity of demand for imports and exports is less than unity, the effect of devaluation on balance of payments will be unfavourable.

2. Sufficient Supply of Exports. The second condition is that the supply of exports should be adequate to meet the increased demand for exports after devaluation. For this, all types of measures such as lowering or abolishing export duties, providing subsidies to export industries, etc. should be adopted to increase exports. Exports will also increase if goods are cheap, durable and of good quality. Further, labour laws, price controls, allocation of scarce industrial raw materials, fiscal incentives and tax concessions should be so adjusted that they may help the export sector and encourage it.

3. Stable International Price Level. The effects of devaluation on the balance of payments will be favourable if the price level remains constant in the country after devaluation. When there is devaluation, exports increase and imports become dearer. With the increase in

exports, there is a shortage of consumer goods within the country. As a result, their prices rise. On the other hand, imported goods become costlier than before. Their imports are restricted and very essential commodities are imported. Consequently, there is a shortage of raw materials and other imported goods which tends to raise their prices. If such goods are used for the production of exportables, exports will be adversely affected and the favourable effects of devaluation on balance of payments will end.

4. Non-Competitive Devaluation. Devaluation will be successful if other countries do not devalue their currencies simultaneously. When a country devalues its currency, its exports increase and imports decrease which adversely affect the exports of other countries. So if other countries also devalue their currencies, the effect of devaluation will be neutralised.

5. Counter-Devaluation Measures. When a country devalues its currency and other countries adopt measures to counter the effects of devaluation on them, devaluation will not help a country to reduce its balance of payments deficit. If other countries raise tariff duties on imports from the devaluing country, the exports of the latter will become dearer and the beneficial effect of devaluation will be offset. Again, if the non-devaluing countries give export subsidies to their industries, their exports to the devaluing country will become cheaper and the latter will not be able to reduce its imports. Consequently, the very purpose of devaluation will be defeated.

6. Spirit of Sacrifice by the People. For the success of devaluation, it is essential that the people of devaluing country should have the spirit of sacrifice. Workers should avoid disputes and strikes in order to increase productivity. People should limit their expenditure on imported consumer goods and on exportable commodities, restrict unnecessary foreign trips, etc. Such self-restraining measures on the part of people will encourage exports and discourage imports and help divert resources from the domestic to the export sector.

EXERCISES

1. What do you mean by devaluation? Explain the conditions for its success.
2. Analyse the possible price effects of devaluation.
3. Explain the possible income effects of devaluation.
4. Discuss the terms of trade effect of devaluation.
5. Write note on the J-curve.



OPTIMUM CURRENCY AREA

1. INTRODUCTION

The concept of an optimum currency area (OCA) originated with Mundell who put forth his Factor Mobility Theory. He was followed by McKinnon, Kenen, Magnifico, Wood, etc. who developed their own theories.

An optimum currency area refers to a group of countries whose currencies are permanently linked through a fixed exchange rate system among themselves. But the currencies of member countries are linked with the currencies of the non-member countries on the basis of flexible exchange rate system. A common currency area may be linked through a common currency such as the *Euro* of the EC countries.

2. THEORIES OF OPTIMUM CURRENCY AREA

There are a few theories relating to the optimum currency area which are discussed as under.

MUNDELL'S FACTOR MOBILITY THEORY

According to Mundell¹, an optimum currency area is one which brings about automatic adjustment of internal and external balance

in the form of full employment and balance of payments equilibrium respectively. There is neither government intervention in the form of monetary, fiscal and other policies nor a policy of flexible exchange rates. The achievement of internal and external balance is possible through the mobility of factors within the area. The initial balance of payments disequilibria are caused by differences in unit factors costs among member countries. If factors, such as labour and capital, move freely among countries, both internal (full employment) and external (BOP) equilibria will be achieved automatically. If factor mobility is high, labour and capital will move from countries of high unemployment to countries of low unemployment and equalisation of factor costs will tend to equalise inflation rates within the area. "This, in turn, reduces the pressure for changes in the exchange rate if it is pegged". Thus there will be little need for monetary, fiscal and other policies to achieve internal and external balance. Mundell has been criticised for assuming factor mobility among members of currency areas. It is not possible for factors to move freely between nations. In practice, factors are not allowed to move freely even among the EEC countries.

[1.](#) R.A. Mundell, "The Theory of Optimal Currency Areas", *A.E.R.*, Sept. 1961.

McKINNON'S OPEN ECONOMY THEORY

McKinnon emphasises the importance of open economies and of internal price stability in an optimum currency area. "In a relatively open economy the impact of exchange rate changes will be mainly on the price level rather on the composition of expenditure." According to McKinnon, the formation of an optimum currency area is beneficial to its members if their economies are open and the ratio of traded to non-traded goods or of foreign trade to GNP is high. Moreover, such economies should depend upon monetary and fiscal policies to achieve internal and external balance and not on exchange rate changes.

But McKinnon's criteria of open economies and internal price stability for forming a currency area may not hold if there is inflation in non-

member countries. High prices of imports will fail to maintain internal price stability in the currency area.

KENEN'S PRODUCT DIVERSIFICATION THEORY

Kenen suggests that an optimum currency area is more practical for countries which have less open but more diversified economies. Countries having diversified range of exports and imports would have greater stability in their balance of payments position and less pressure to change their exchange rates. If in a less open and diversified economy, the export demand for one commodity falls, an increase in the export demand for some other commodity will offset that fall and thus such an economy will not suffer from serious balance of payments deficits and unemployment.

But this may not happen because of the nature of demand and supply of exports and imports of non-member countries and their effect on prices of products. These may create balance of payments problems.

MAGNIFICO'S PROPENSITY TO INFLATION THEORY

Magnifico suggests that an optimum currency area is only viable if the members have similar propensities to inflation. This theory is based on Phillip's trade-off curve between inflation and unemployment. The formation of an optimum currency area depends on the agreement about common rates of inflation and unemployment to be maintained by members. If inflation rates differ in countries, there will be balance of payments problem which will have to be adjusted through exchange rate adjustments, requiring monetary and fiscal policies. All these go against the formation of an optimum currency area for which a similar propensity to inflation among members and fixed exchange rates are essential.

But it is not possible to have common inflation and unemployment rates in countries of common area. As pointed out by Mundell, "A currency area cannot prevent both unemployment and inflation among its members."

WOOD'S COST-BENEFIT THEORY

Wood suggests the viability of an optimum currency area on the basis of its costs and benefits. A currency area is feasible if the benefits from its formation exceed its costs. The potential cost of forming such an area is its inability to change the exchange rates in order to correct its balance of payments disequilibrium. Its potential benefits include gains from saving of such resources as banking and foreign exchange dealings; gains from re-allocation of resources by pooling of reserves by the union; gains arising from expansion of trade and reduction of uncertainty; and gains from better functioning of the monetary mechanism within the union.

Wood does not give a concrete theory but simply suggests the study of costs and benefits before forming a currency area.

CONCLUSION

On the basis of the above theories, we can lay down the following criteria for the formation and feasibility of an optimum currency area:

1. There should be greater mobility of resources among member countries. This presupposes a large network of infrastructural facilities in these countries.
2. The benefits from the currency area should be more than the costs.
3. There should be product diversification among member countries in order to gain from trade with non-member countries.
4. All members should have open economies in their economic relations among themselves.
5. There should be a policy-mix of monetary, fiscal and other policies in member countries to maintain internal and external balance.

6. Goodhart emphasises political and social cohesion as a prerequisite along with economic considerations for an optimum currency area.

GENERAL THEORY OF OPTIMUM CURRENCY AREA (OCA)

Having discussed briefly the various theories of OCA, we explain its general theory which is based on the theories of Mundell and Wood.

According to the general theory of OCA, an optimum currency area is a territory or region in which one monetary unit of a currency circulates with fixed rate and it is integrated through trade and factor movements. The currencies of member countries may be linked with non-member countries on a flexible exchange rate system. The membership of an OCA may involve benefits and costs. A country joining the OCA or economic union gains greater monetary efficiency under a fixed exchange rate as compared to a flexible exchange rate with a non-member country. The monetary efficiency gain will be all the more higher if such factors as labour and capital can move freely between the country joining the OCA and its other members. The relation between the degree of economic union and the monetary efficiency gain of a country joining the OCA with a fixed exchange rate is shown by the upward sloping M_G curve in Fig 1. The horizontal axis measures the degree of economic union between the country and the currency area. The vertical axis measures the gain in monetary efficiency of the country by joining the area. The positive slope of the curve shows that as the economic union with the area increases, the monetary efficiency gain for the country rises. The monetary efficiency gain is larger because of the stability of exchange rate in the OCA. There are greater chances of low domestic inflation and of more price stability due to free mobility of labour and capital within OCA.

Even when inflation is low in the currency area, its membership may involve costs. Costs arise because the country gives up its ability to change its exchange rate and monetary policy in order to stabilise its output and employment. under a fixed exchange rate system,

monetary policy is powerless to influence domestic output and employment. because it is not possible to change the relative prices of domestic and foreign goods. If there is a fall in the demand for exportable goods, it will bring economic instability in terms of fall in output and employment. This is the loss in the country's economic stability which leads to a slump with prices of goods and wages of workers falling. However, if the country's economic union with OCA is stronger, the slump will be small and the adjustment of the economy will be less costly. This may be due to the following reasons : (a) If the country is closely integrated with the currency area, a small fall in the prices of its exportable goods will lead to an increase in their demand by the economic union. This will raise output and employment in the country. (b) If capital and labour are freely mobile within the union area, unemployed labour can migrate to member countries to find jobs, and capital can flow for more profitable uses to other countries in the OCA. Thus a strong economic union between a country joining OCA with a fixed exchange rate reduces the loss in economic stability due to a fall in demand, output and employment.

Fig. 1 shows the downward sloping E_L curve representing economic stability loss of a country joining OCA. The horizontal axis measures the degree of economic union between the country and OCA and the vertical axis measures the country's economic stability loss. The downward slope of the E_L curve shows that the economic stability loss of a country joining OCA falls as its economic union with the area strengthens.

If the two curves M_G and E_L are joined, as shown in the figure, it can be known the extent to which the country gains or incurs a loss by its joining the economic union. It is measured by the intersection of M_G and E_L curves at point A. If the degree of economic union is represented by X, it is worthwhile for the country to join the union. If the level of economic union is to the left of X, the

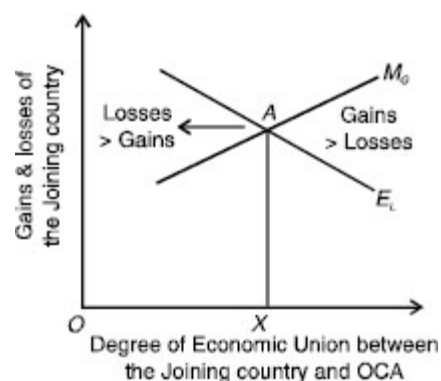


FIG. 1

country would suffer from price, output and employment instability after joining the union. In other words, the economic stability loss is much greater than the monetary efficiency gain. It would, therefore, be inadvisable for it to join the union. But to the right of X , it would be beneficial to join the economic union because the curve M_G is above the curve E_L beyond point A , that is, the monetary efficiency gain is greater than the economic stability loss. In other words, the benefits are greater than the costs by joining the economic union in terms of price stability, and higher levels of output and employment, if OCA is closely linked by a high degree of trade and factor mobility.

3. MERITS AND DEMERITS OF OPTIMUM CURRENCY AREA

MERITS

The optimum currency area has the following merits :

- 1. Single Large Market.** The whole region of a common currency area is treated a single large market.
- 2. Economies of Scale.** An optimum currency area ensures the benefits from economies of scale.
- 3. Certainty.** An optimum currency area removes uncertainty which often occurs due to flexible exchange rates.
- 4. Specialisation.** It leads to product specialisation, increases the gains from trade and promotes investments.
- 5. Price Stability.** The formation of a currency area brings greater price stability within the member countries.
- 6. Monetary Management.** It leads to an efficient monetary management and tries to avoid inflation and recession among member nations.

7. Minimising Costs. Once the exchange rate bands are fixed in the common currency area, it saves the cost of exchanging currencies, of pegging the exchange rates by members, and of hedging.

DEMERITS

Despite these merits, the formation of an optimum currency area may lead to differences among member nations. The economically advanced members may dominate in policy matters over backward member countries. The latter may like to follow independent monetary, fiscal and other policies to safeguard their interests. Therefore, there is every likelihood of the currency area being broken up or failing, if the interests of such member countries are not looked into by the union.

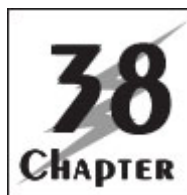
CONCLUSION

The European Union (EU), also known as European Economic Community (EEC), is a successful example of an optimum currency area. The first step towards this direction was the establishment of a band of exchange rate fluctuations known as the *snake in the tunnel*, in 1972. This arrangement continued after the collapse of the Bretton Woods system in 1973, with the participating EEC countries jointly floating relative to the rest of the world. It was simply an arrangement but not the integration or co-ordination of monetary and fiscal policies of the union. Member countries moved out or in this arrangement with the change in circumstances. With the formation of the EMS (European Monetary System) in 1979, for official transactions within the Union, the ECU (European Currency Units) came into use. The EMS worked well because members were free to peg their exchange rate bands to the new '*snake*'. The Maastricht Agreement of 1991 was ratified by all 11 members by the end of 1993. The EURO, a common currency of EEC, was born on 1 January, 1999, and the EEC became the EU.²

EXERCISES

1. What is an optimum currency area? On what basis an optimum currency area can be formed? Explain the views of economists in this regard.
2. Explain an optimum currency area in the light of the various theories. Does such an area exist in the world at present? If so, explain briefly.

[2.](#) For details refer to the chapter on EEC.



THE FOREIGN EXCHANGE MARKET

1. INTRODUCTION

The foreign exchange market is the market in which different currencies are bought and sold for one another. For example, dollars are traded for marks, marks for francs, francs for yens or yens for dollars. Thus the national currencies of all countries are the stock-in-trade of the foreign exchange market. As such, it is the largest market to be found around the world which functions in every country.

2. THE STRUCTURE OF FOREIGN EXCHANGE MARKET

The principle participants in the foreign exchange market are banks, foreign exchange dealers, brokers, firms and central bank. For instance, in India the Reserve Bank of India authorises banks and other financial institutions to transact foreign exchange business. They are called Authorised Dealers. There are also Authorised Money Changers who are issued licences to transact foreign exchange business of issuing and encashing travellers' cheques and foreign currencies. Banks dealing in foreign exchange are the "market makers" in the market. This means that they quote buying and selling rates of a currency (say \$) in relation to another currency (say Re) and are prepared to buy and sell it at those rates. The brokers in the foreign exchange market act as middlemen between

two banks. They inform the banks about rates at which buyers and sellers are prepared to buy and sell the specific currency. The broker strikes the deal and collects his commission. But brokers do not buy or sell currencies themselves. Thus the foreign exchange rates are set in these inter bank and bank-broker dealings. Firms need foreign exchange for making payments of imports and interest on foreign loans, conversion of exports receipts, hedging of receivables and payables, etc. They do not deal in foreign exchange like banks. The central bank intervenes in the foreign exchange market from time to time to influence the exchange rates when the country is not on a fully flexible exchange rate system. For instance, in India when the price of dollar rises above a certain level, the Reserve Bank of India intervenes by releasing a large supply of dollars so as to bring its price at that level. Even in countries with full flexible systems, the central banks do intervene to smooth out fluctuations in the exchange rate when the situation demands. This is called “dirty floating” system. The foreign exchange markets “follow the sun around the globe”. In other words, they function 24 hours a day with the fastest possible communication through telephones, telexes, computers and other means of communications with the help of satellites. Some of the major foreign exchange market centres are: New York, London, Tokyo, Frankfurt, Zurich, Paris, Singapore and Hongkong.

FUNCTIONS

The main functions of the foreign exchange market are : (i) to transfer funds through one currency of a country to another currency; (ii) to provide short-term credit to finance trade between countries through various credit instruments; and (iii) to facilitate avoidance of foreign exchange risks or hedging or speculation.

3. METHODS OF FOREIGN PAYMENTS

Foreign payments are made in the currency of the country to whom the payment is to be made. But countries mostly prefer u.S. dollars.

Payment is made through the following types of credit instruments by the bank dealing in foreign exchange:

1. Demand Draft
2. Telegraphic Transfer
3. Mail Transfer
4. Banker's cheque
5. Bills of Exchange
6. Travellers' Cheque
7. International Credit Card like the Master Card or Visa Card.
8. Small sums of foreign currencies can also be sent by International Money Orders.

The banks sell the required amount of foreign exchange to be remitted through the above noted credit instruments at the exchange rate prevalent at that time and also charge their commission (in Rupees in India).

All banks dealing in foreign exchange maintain abroad “Nostro Accounts” with foreign banks. So when an Indian bank draws any of the above noted credit instrument on a foreign bank (Citi Bank) with which it has a foreign currency current account, it will write the word “Nostro A/c” on it. If the payment is to be made to another bank (Bank of Tokyo) with which the Indian Bank *does not* have a “Nostro A/c”, it will instruct the foreign bank (Citi Bank) with which it has its current account to credit the sum being remitted to the “Zoro A/c” of the other bank (Bank of Tokyo) and debit the same to its “Nostro A/c”. If a foreign bank has to make payment to an Indian bank, its current account with the latter is called the “Nostro A/c.”^{[1](#)}

4. SPOT AND FORWARD EXCHANGE MARKETS

From the point of view of foreign exchange transactions, there are two types of markets : the spot exchange market and the forward exchange market.

SPOT MARKET

In the spot market, the delivery of the foreign exchange has to be made 'on the spot', usually within two days of the transaction. The exchange rate at which the transaction takes place is called the "spot rate". The spot exchange rate is determined by immediate market demand and supply of foreign exchange. (see chp. 33 Fig. 1).

1. Nostro, Loro and Vostro are Latin words. The Nostro A/c means "our a/c with you"; the Loro A/c means "their a/ c with you"; and the Vostro A/c means "your a/c with us".

FORWARD MARKET

In the forward market, the foreign exchange is bought and sold for delivery at a future date at an agreed rate today. The rate at which the forward exchange contract is agreed upon is called the "forward rate". The usual forward exchange contract and rate are for 1 month, 3 months, 6 months, 9 months and 1 year.

The forward exchange rate is determined by the market demand and supply for foreign exchange to be delivered at some future time. The forward exchange rate is quoted in terms of the spot rate. If the forward rate for, say, 3 months is greater than spot rate, less of foreign currency is exchanged for a unit of domestic currency. It is called 3-month "forward premium". On the other hand, if the 3-month forward rate is less than the spot rate, more of foreign currency is exchanged for a unit of the domestic currency. This is called 3-month "forward discount". Forward premium and forward discount are expressed as percentage of the spot rate per year. The forward

exchange rate is linked with the spot rate through the actions of hedgers, speculators and arbitrageurs. we discuss them one by one.

1. HEDGING

An important factor influencing the forward rate is hedging. Hedging is the act of avoiding or covering a foreign exchange risk arising from an agreed forward rate. usually, foreign exchange rates fluctuate continuously. Therefore, a person who has to receive or make payment in a foreign currency at a future date faces the risk of receiving less or paying more in terms of the home currency than anticipated. For instance, the exchange rate may change in the interval between an exporter shipping his goods to another country and his receiving payment. The exporter will make a gain or loss in terms of his home currency, depending on how the exchange rate between the two countries moves. He tries to avoid or cover such foreign exchange risks by hedging. Hedging involves an agreement to buy or sell the required foreign exchange at today's agreed rate on some future date, usually 3 months hence.

For example, suppose a U.S. exporter sells goods to a British firm and expects to receive \$ 10,000 after 3 months. He fears that the exchange rate between dollar and pound will change during this period. In order to avoid this risk, he covers himself by hedging. He sells \$ 10,000 at today's forward rate for the pound to be delivered after 3 months. He, thus, avoids the risk of the spot rate 3 months hence being much below today's rate. In this hedging operation, he has neither received nor paid any money. out of what he actually receives after 3 months, he pays the money at the rate he had sold forward 3 months back, regardless of what the spot rate of the pound is at that time. Similarly, a u.S. importer who has to make payments to a British firm 3 months hence, can avoid exchange risk by buying \$ 10,000 at today's forward rate for pound. Thus by hedging, he avoids the risk of the spot rate 3 months hence being higher than today's rate. After 3 months he pays for his goods from the dollars bought at the forward rate 3 months hence, regardless of the spot rate of the pound at that time.

Hedging also provides opportunities to people to cover risks involving other foreign exchange transactions. A Britisher who has to pay \$ 10,000 three months hence, need not wait for so long to buy dollars in the future at an uncertain exchange rate. He can hedge against this dollar liability by buying dollars now at the spot rate to be able to repay after 3 months. Similarly, fluctuating exchange rates give hedgers a way of avoiding gambles on the future of exchange rates. Hedging helps exporters and importers to concentrate on their trading exchange rate fluctuations. Further, it maintains the supply of and demand for forward exchange which depends on the volume of trade and the avoidance of risk by exporters and importers. But hedging is possible in flexible exchange rate short-run forward market usually of 3 months. It does not function efficiently for longer periods as it fails to cover risks involving rate fluctuations.

2. SPECULATION

The supply of and demand for forward exchange market is also the result of speculation. Speculation means “taking of a foreign exchange risk or an open position in the hope of making profit.” Speculation is based on the expectations about the future rate of the foreign currency. It takes place in the forward market and is related to the development of the future spot rate.

A speculator who expects the spot rate of a foreign currency to increase in relation to his home currency in 3 months, he buys the foreign currency in the forward market. He sells it at the spot exchange rate after 3 months. If his expectation turns out to be correct, he earns a profit. Otherwise, he may incur a loss or break even. Suppose the forward exchange rate is \$ 1.75 per pound (£). A speculator expects that the spot exchange rate will be \$ 1.80 per pound (£) 3 months from now. He will buy pounds forward at \$ 1.75 in the hope of selling them 3 months from now at \$ 1.80 thereby earning a 5 cent profit on each pound. If the spot rate 3 months hence happens to be \$ 1.70, he incurs a loss of 5 cents per pound. In case, it is \$ 1.75, he breaks even.

on the contrary, if he expects the spot rate to fall in 3 months from now, he sells the currency in the forward market in order to buy at the spot rate after 3 months. If his expectation about the future spot rate is correct, he earns a profit. Otherwise, he may incur a loss or break even. In such forward transactions, transfers take place only after 3 months when the speculator sells or buys the pounds for dollars at the then spot rate.

Speculation in a foreign currency depends on domestic and foreign interest rate differentials and on expectations about future movements in the exchange rate. Suppose the interest rate in the foreign market (England) is higher than in the domestic market (U.S.). The foreign exchange traders will buy the foreign currency (pounds) in the spot market to lend in England and sell them in the forward market in order to earn from interest differentials. It will lead to the appreciation (rise in the value) of the foreign currency (pounds) due to an increased demand for it. There will also be forward discount on it because its spot rate is higher than its forward rate. The speculators will buy the foreign currency in the forward market from traders to take advantage of the forward discount. when forward contracts mature after 3 months, the foreign exchange dealers will deliver the foreign currency (pounds) to the speculator in exchange for the domestic currency. The speculators will, in turn, sell the foreign currency (pounds) on the spot market to obtain the domestic currency in order to deliver it to the traders. Selling of the foreign currency by speculators will lead to their *depreciation*.¹

A change in expectations also affects the spot and forward exchange rates. If speculators expect the spot rate to rise, they will buy foreign exchange in the forward market. As a result, the forward rate increases. on the contrary, if they expect the spot rate to fall, they will sell foreign exchange in the forward market. Consequently, the forward rate comes down. Thus speculation leads to the movement of the spot and forward rates together.

Speculation may be stabilising or destabilising. Speculation is stabilising when speculators buy a foreign currency with a fall in its

exchange rate in the expectation that it will soon rise and, thus, earn a profit. Contrariwise, when they sell a foreign currency with a rise in its exchange rate in the expectation that it will soon fall, thereby earning a profit. The effect of such speculation is to smooth out fluctuations in the exchange rate.

Speculation is *destabilising* when speculators buy a foreign currency with a rise in the exchange rate in the expectation that it will rise further. Contrariwise, when speculators sell a foreign currency with a fall in the exchange rate in the expectation that it will fall further. Thus destabilising speculation is due only to such speculators who buy foreign currency at higher than normal rates and sell at lower than normal rates. They will not make any profits and their losses will eventually force them to stop their speculative business. The effect of destabilising speculation is to increase the amplitude of exchange rate fluctuations.

[1.](#) Students who find it difficult may leave this para without loss of continuity.

3. ARBITRAGE

Arbitrage means the simultaneous buying and selling of a foreign currency in two markets in order to profit from the exchange rate difference between the markets. The simultaneous purchases and sales of the foreign currency by changing supply and demand in the two markets tends to smooth out different rates. Suppose the dollar-rupee exchange rate is \$ 1 = Rs. 35 in Bombay and \$ 1 = Rs. 36 in New York. Obviously, there is an opportunity to make profits out of this difference between the two market rates. Banks will buy dollars in Bombay at Rs. 35 per dollar and sell them in New York at Rs.36 per dollar and earn Re. 1 per dollar. This will increase the supply of rupees in Bombay in relation to the demand for dollars. Consequently the exchange rate moves in favour of dollars. on the other hand, the demand for rupee will increase in relation to dollars in New York market and the exchange rate will move in favour of rupee. This process will go on until the rate in India and in New York is almost the same. Besides, there is the *interest rate arbitrage* or

interest arbitrage. Interest arbitrage refers to buying a foreign currency spot and selling it forward to take advantage of the higher interest rate. Interest arbitrage is riskless, because it is covered by a forward sale of the foreign currency. This is also called covered interest arbitrage.

Suppose the short-term interest rate in New York is 6% per annum while it is 10% per annum in London. To take advantage of the 4% per year or 1% for 3 months interest rate in London, a U.S. arbitrageur buys dollars for pounds at the current spot rate to invest them in London for 3 months and simultaneously sells an equal amount of pounds at the forward rate (including the 1% interest he will earn) for delivery in 3 months.

So far we have not taken the spot rate and the forward rate. Suppose the spot rate is \$ 2 per pound and the forward rate is \$ 2.04. If the forward rate is higher than the spot rate, there is a *forward premium* on the pound. It is expressed as a percentage of the spot rate and is calculated with the following formula :

$$\frac{Y_f - Y_s}{Y_s}$$

where Y_f is the forward rate and Y_s the spot rate.

In our above example, the forward premium on the pound is

$$\frac{2.04 - 2.00}{2.00} = \frac{0.04}{2.00} = 2\% \text{ per year}$$

Thus the U.S. arbitrageur will gain 1% in interest *plus* a 2% forward premium on his investment in London.

If the spot rate is higher than the forward rate, it is called *forward discount*. Suppose the spot rate is £2 per pound and the forward rate £1.96 per pound, the forward discount on the pound is

per year.

In this situation, the U.S. arbitrageur will gain 1% in interest and loose Vi of 2% for 3 months as forward discount on his investment in London.

If the spot rate and the forward rate are equal, the arbitrageur would have riskless interest arbitrage and make a profit of interest earned from his arbitrage operations.

There is *covered interest parity* when the interest differential is positive in favour of the foreign monetary centre and equals the forward discount on the foreign currency. In such a situation, no arbitrage will take place. But arbitrage opportunities will exist so long as the interest differential between the two monetary centres exceeds the premium of discount of the forward exchange rate. when there is an interest arbitrage margin in favour of a particular centre, it will attract lenders and repel borrowers.

EXERCISES

1. What is a foreign exchange market? Explain the structure of foreign exchange market.
2. What is a foreign exchange market? Describe the methods of making foreign payments.
3. Explain the working of spot and forward exchange markets.
4. Write notes on : hedging, speculation, arbitrage.



INTERNATIONAL CAPITAL MOVEMENTS

1. MEANING

International capital movements (or flows) refer to the outflow and inflow of capital from one country to the other. They do not relate to the movement of goods or payments for exports and imports between countries. They take place through government, private and international organisations or agencies. They are of various types which are explained below.

2. TYPES OF INTERNATIONAL CAPITAL MOVEMENTS

International capital movements are classified in the following ways :

1. Direct and Portfolio. The flow of direct capital means that the concerns of the investing country exercise *de facto* or *de jure* control over the assets created in the capital importing country by means of that investment. Direct capital investments may take many forms. The formation in the capital importing country of a subsidiary of a company of the investing country; the formation of a concern in which a company of the investing country has a majority holding; the formation in the capital importing country of a company financed exclusively by the present concern situated in the investing country; setting up a corporation in the investing country for the specific purpose of assembling the parent product, its distribution, sales and

exports; or the creation of fixed assets by investing in infrastructures like power, refineries, railways, etc. in the capital importing country. Such companies or concerns are known as Transnational Corporations (TNCs) or Multinational Corporations (MNCs).

The movement of indirect capital, known as portfolio or rentier' investment consists mainly of the holdings of transferable securities (issued or guranteed by the government of the capital importing country), shares or debentures by the nationals of some other country. such holdings do not amount to a right to control the company. The shareholders are entitled to the dividend only. In recent years, multilateral indirect capital investments have been evolved. The nationals of a country purchase the bonds of the World Bank floated for financing a particular project in some LDC.

2. Private and Government Capital. Private capital movements refer to lending and borrowing from abroad by private individuals and institutions. Private capital is generally guaranteed by the government or the central bank of the borrowing country. Profit motive is the driving force of private capital movements. on the other hand, government capital movements imply lending and borrowing between governments. such capital movements are under the direct control of governments. In fact, governments are important international lenders. They make stability loans, loans to finance exports and imports, and particular projects.

3. Home and Foreign Capital. Home capital is concerned with investments made abroad by residents of the country. on the other hand, foreign capital implies investments made by foreigners in the country. Thus home capital refers to the outflow of capital, while foreign capital is concerned with the inflow of capital. The balance of payments account of a country shows the distinction between the two.

4. Foreign Aid. It refers to public foreign capital on hard and soft terms, in cash or kind, and inter-governmental grants. Foreign aid is tied and untied aid. Aid may be tied by source, project, and

commodities. Untied aid is a 'general purpose aid' and is also known as programme aid or non-project aid.¹

5. Short-Term and Long-Term Capital. Short-Term capital movements are for a period of less than one-year maturity while long-term capital movements are of more than one-year maturity. We discuss them in detail as under.

SHORT-TERM CAPITAL MOVEMENTS

Short-term capital movements relate to credit instruments of less than one year. These movements take place through changes in claims of residents of one country on the residents of other country or through changes in the liabilities of the residents of a country to foreign residents. The residents of a country refer to the government, the central bank, commercial banks, the other types of banks and financial institutions, financial intermediaries, speculators, industrial and commercial firms, etc. Short-term capital movements take place through currency, demand deposits, bills of exchange, commercial papers, etc. They are undertaken by the central bank and commercial banks of countries.

Under the gold standard, short-term capital movements were transfers of gold between countries. For example, the transfer of gold could be to maintain equilibrium in balance of payments in current account or the outflow of gold could be for automatic short-term capital movements or due to speculation or income transfers. Under the gold standards, short-term capital outflow was in the form of inflow of gold because capital sent abroad in the form of credit instruments came back in the form of gold. As a result, there was multiple expansion in the supply of money. On the contrary, there was the outflow of gold from the inflow of short-term capital which led to multiple contraction in money supply. However, at present, when the gold standard does not exist, short-term capital movements affect the supply of money in the following ways :

The supply of money is related to the current account of balance of payments because short-term capital movements affect the supply of

money through it. When there are changes in the assets and liabilities of the central bank due to short-term capital movements, these bring changes in the money supply of the country. Changes in money supply on account of short-term capital movements can be classified in three parts : primary, secondary and tertiary.

Primary expansion or contraction in money supply is directly due to surplus or deficit in the current account of balance of payments. When exports exceed imports of the country, the quantity of money increases with the exporters. On the contrary, when imports exceed exports, the quantity of money decreases with the importers because they are required to pay to the exporters more than what they receive. As a result, the net supply of money declines.

[1.](#) For a study of tied and untied aid refer to the chapter on Foreign Aid.

The secondary changes in the money supply as a result of short-term capital movements are due to the impact of reserves of banks. When exports exceed the imports of the country, payments are made by foreign monetary institutions in the central bank of the country which increase the deposits of national banks. On this basis, these banks lend more which leads to secondary expansion in money supply or credit. On the contrary, when imports exceed exports, the reserves of national banks decline due to more payments to foreign banks. Consequently, the lending capacity of these banks declines.

When reserves of the central bank increase and if it discounts exchange instruments of banks or purchases securities through open market operations, the expansion of money that takes place is called the *tertiary effect* of short-term capital movements. On the contrary, when reserves of the central bank decline due to the increase in its foreign liabilities and it sells securities in the open market, the supply of money falls that is also the tertiary effect of short-term capital movements. Under the gold standard, short-term capital movements were influenced by changes in the bank interest rate-through which the balance of payments was balanced. For this,

speculative capital was transferred in the money market. But under flexible exchange rates, the exchange risks are undertaken sensibly. If the exchange risks are not undertaken, short-term capital movements are not possible. Under destabilising speculation, if imports exceed exports, then the outflow of capital takes place which leads to excessive decline in the reserves of the central bank. On the contrary, if speculation is destabilising and exports exceed imports, with the increase in the exchange rate and decrease in the interest rate there is inflow of capital which leads to the increase in bank reserves and expansion in money supply. Similarly, there can be short-term capital movements due to stabilising speculation. Under convertible paper money standard through which adjustment limit of the exchange rate can be fixed or a high limit of exchange rate adjustment can be fixed for short-term capital movement through destabilising speculation.

LONG-TERM CAPITAL MOVEMENTS

Long-term capital movements take place through credit instruments of more than one-year maturity. These include bonds, convertible debentures, stocks, term-loans by banks, etc. They may also be in the form of new securities or bonds floated in foreign countries and inter governmental loans. The long-term capital movements take place through both private and government banks, international financial institutions such as the World Bank, European Investment Bank, Asian Development Bank, etc. and agencies established by governments.

1. Balancing Bop. Long-term capital movements are needed for balancing deficit or surplus in the balance of payments of a country. With the inflow of capital, the BOP deficit of the borrowing country improves, while that of the lending country may become adverse. But the lender country gains when it starts receiving interest, dividend, royalty, etc. which it can utilise to fill its current account deficit in balance of payments.

2. Improving Terms of Trade. When with the inflow of capital, output increases in the borrowing country, its exports may increase

and imports decline in the long run. As a result, its terms of trade may improve in relation to the capital lending country.

3. Meeting Developmental Requirements. They are also needed for meeting the financial, industrial and development related requirements of the people living in the creditor and debtor countries

4. Increasing Output, Income and Employment. The long-term capital movements help in the process of capital formation and thereby increase output, income and employment. When a borrower country uses the foreign loan to establish an industry or start a capital project, there is increase in output, income and employment in the country.

5. Changing Factor Proportions. The long-term capital movements also bring about changes in factor proportions of the country to which they flow. The capital-labour ratio changes with the import of more capital.

6. Maximising Welfare. There is more and better utilisation of the country's resources. Modern governments which borrow long-term capital from private and international financial institutions see to it that the borrowed capital is utilised in proper works, projects and industries. Thus capital moves in those directions where it maximises welfare.

7. Equalising Interest Rates. There is a tendency for interest rates to equalise between countries involved in international capital movements. If there are no restrictions in international capital movements, capital moves from capital surplus country to capital scarce country because the interest rate is high in the latter. Ultimately, the interest rate increases in the capital exporting country and falls in the capital importing country.

8. Narrowing Technological Gap. When capital moves from one country to another, technologies from the lending country are transferred alongwith plants, equipment, etc. to the borrowing

country. This tends to upgrade technologies in the latter country and the technological gap between the two countries is narrowed down.

3. FACTORS AFFECTING INTERNATIONAL CAPITAL MOVEMENTS

The following factors affect international capital movements :

1. Rate of Interest. The most important factor which affects international capital movements is the difference among current interest rates in various countries. Capital flows from that country in which the interest rates are low to those where interest rates are high because capital yields high returns there.

2. Speculation. Speculation related to expected variations in foreign exchange rates or interest rates affects short-term capital movements. When the speculators feel that the domestic interest rates will increase in future, they will invest in short-term foreign securities to earn profit from the possibility of fall in bond prices. This will lead to the outflow of capital. On the contrary, if the possibility is of fall in domestic interest rates in future, the foreign speculators will invest in securities at a low price at present. This will lead to the inflow of capital in the country. Similarly, if there is the likelihood of devaluation of the country's currency in future, the domestic speculators will try to change the currency into foreign securities. This will lead to the outflow of capital. On the other hand, if the foreign exchange rate is expected to rise, there will be an inflow of capital in the country.

3. Expectations of project. A foreign investor always has the profit motive in his mind at the time of making capital investment in the other country. Where the possibility of earning profit is more, capital flows into that country. Similarly, a foreign entrepreneur keeps expected profit in view while investing in various projects in a country. He will invest in that project where the expected profit is

more as compared to a less profitable project. This leads to larger inflow of capital.

4. Bank Rate. A stable bank rate of the central bank of a country also influences capital movement because market interest rates depend on it. If the bank rate is low, there will be outflow of capital. On the contrary, if the bank rate is high, there will be inflow of capital in the country.

5. Production Costs. Capital movement depends on production costs in other countries. In countries where labour, raw materials, etc. are cheap and easily available, more private foreign capital flows into them. The main reason of huge capital investment in Korea, Singapore, HongKong, and other developing countries by the multinational corporations is low production costs there.

6. Economic Conditions. The economic conditions in a country, especially size of the market, availability of infrastructure facilities like the means of transport and communication, power and other resources, efficient labour, etc. encourage the inflow of capital there.

7. Political Stability. Political stability, security of life and property, friendly relations with other countries, etc. encourage the inflow of capital in the country.

8. Taxation Policy. The taxation policy of a country also affects its inflow of capital. To encourage the inflow of foreign capital, the taxation policy should avoid double taxation, should not burden entrepreneurs heavily, give tax relief, etc. to new industries and foreign collaborations.

9. Foreign Capital Policy. The government policy relating to foreign capital also affects capital movements. If the government provides facilities of transferring profit, dividend, royalty, interest, etc., to foreign investors, there will be inflow of capital in the country. Similarly, soft foreign exchange contracts and fiscal, monetary and other policies which encourage foreign capital are helpful in the inflow of capital.

10. Marginal Efficiency of Capital. The marginal efficiency of capital is positively linked with the inflow of capital. Foreign investors generally compare the marginal efficiency of capital with the interest rate in different countries and prefer to invest in that country where the rate of return is likely to be high.

EXERCISES

1. Explain the types of international capital movements. What factors influence international capital movements?
2. Explain how short-run and long-run capital movements affect the economy of a country.



THE TRANSFER PROBLEM

1. INTRODUCTION

The transfer problem refers to international transfers of income from the debtor country to the creditor country. Such transfers of income are also called *real transfers* because the debtor country repays interests and capital in terms of goods and services (real resources) to the creditor country.

In the past, transfer payments were in the form of reparation payments imposed by the victorious country over the vanquished country. For example, Germany demanded reparation payments from France after it won the Franco-Prussian war in 1871 and the victorious Allies imposed heavy reparation payments on Germany after World War I. In the present, the international debt crises of the 1970s and 1980s and the Asian crisis of the 1990s have created transfer problems when the debtor LDCs are required to service their debts, thereby leading to international transfers of income.

The transfer problem was the subject of controversy in the 1920s between Bertin Ohlin and J.M. Keynes over the reparation payments demanded of Germany by the Allies after World War I. The issue related to the burden of these payments on the German economy. In the present, the transfer problem is related to the burden of repayment of interest and loan on the debtor LDCs. We discuss this issue in the light of the views of Ohlin and Keynes.

Keynes pointed out that the reparation payments imposed on Germany by the Allies would not only place monetary burden but also a much larger real burden on Germany. Besides, the “money transfer”, Germany would have to increase its exports and reduce its imports. For this, it would have to produce more exportables and reduce their prices relative to imports. This would worsen the terms of trade of Germany and increase the direct burden of its reparation payments. On the other hand, Ohlin argued that when Germany would increase taxes to make reparation payments, people would reduce the demand for imported goods. When the money would be transferred to the Allied countries, their purchasing power would increase and a portion of it would be spent on German goods. Thus there would be reduction in imports and increase in exports of Germany without worsening its terms of trade.

2. THE TRANSFER PROBLEM

We discuss in detail the present transfer problem of LDCs in the light of the above views.

THE OHLIN VIEW

Taking Ohlin's view first, when the debtor country levies taxes on the people to repay the interest and loan, their incomes are reduced. Their demand will partly decline for domestic goods and partly for imported goods. The diminution in demand for domestic goods will increase the quantity of these goods available for export. Thus with reduction in imports and increase in exports, the terms of trade of the LDCs will not worsen. This is the *direct effect* of the transfer problem.

Besides, Ohlin also explains an *indirect effect* of money transfer. When the debtor country repays its debt, with the reduction in purchasing power, the demand for domestic goods and imports falls. This shifts a part of the factors of production from domestic goods industries to export industries. Consequently, exports increase and imports fall. Further, the prices of domestic goods fall due to decline

in demand for them. So far as the prices of exports are concerned, the extent to which they are low depends upon the relative prices of exports of the debtor and creditor countries and the direction of change in demand for them. It is, therefore, not possible to determine whether the terms of trade will be against or in favour of the debtor country.

Ohlin's analysis is unrealistic in the present context of LDCs because it considers only the income effect of the debt repayment and is based on the assumption of full employment in both the debtor and creditor countries. It also neglects the elasticities of demand and supply for exports.

THE MODERN VIEW

The modern view is an extension of the Keynesian analysis of the burden of reparation payments. It has two aspects of the transfer problem. The *first* is what Keynes called the “pure” transfer problem when the country's resources are turned into foreign exchange for the repayment of debt. This is the *external transfer* problem. The *second* is the budgetary problem when the government acquires domestic resources for debt servicing. This is called the *internal transfer problem*.

The external transfer problem is how to raise net exports of goods and services to meet debt repayments. When a debtor (or borrower) country makes the repayment of debt, it not only transfers money to the creditor (or lender) country but also pure or real resources. The *real transfer burden* is the creation of export surplus in order to acquire the foreign exchange of the lender country. This requires reduction in imports and increase in exports. In order to export more, the borrowing country will have to reduce the prices of its exports relative to its imports. This will lead to worsening of its terms of trade in relation to the lending country. But there is no guarantee that the rise in exports will increase the export earnings if the volume of exports does not rise in proportion to the fall in prices. This is a common problem with the debtor LDCs that compete with each other for exporting goods to the creditor developed countries. As a result,

competitive price reductions, keep their export earnings unchanged. They, therefore, reduce the consumption of import goods so that the export surplus is increased. This is at the cost of reduction in their consumption level which is already very low. This entails a *real* burden of transfer on the *debtor countries*. On the other hand, if the total trade between the debtor and creditor countries is static, increased export of goods of the former will reduce the imports of goods of the latter, thereby slowing down production in the creditor country. Consequently, its industries will suffer with the generation of export surplus in the debtor country. Thus the terms of trade of the debtor country will not worsen. It is the creditor country that will suffer due to transfer. This was Keynes' view of the German reparations transfer problem.

Terms of Trade Effect. When a debtor country repays its debt, it transfers a part of its income to the lender country. This process of transfer reduces income and expenditure in the former country and correspondingly increases income and expenditure in the latter country. These changes in income and expenditure in the two countries may change the relative demand for goods in the two countries and thus affect their terms of trade. The effect of a transfer of income is only on the relative demand and not on the relative supply of goods if physical resources are not being transferred.

The direction of terms of trade effect will depend upon the marginal propensity to spend on two goods *A* and *B* by the two countries. Suppose, the debtor country's marginal propensity to spend on its export commodity *A* is higher than that on *B*. Given the relative prices of *A* and *B*, the transfer of income by the debtor country to the creditor country reduces its demand for *A* and increases it for *B*. This reduction in relative demand for *A* lowers its relative price in relation to *B*. This reduction in demand and price of *A* *worsens the terms* of trade of the debtor country in relation to the creditor country. On the contrary, if the marginal propensity to spend on the export commodity *A* by the debtor country is relatively lower, the transfer of income will improve its terms of trade. In general, then if the debtor country has a lower marginal propensity to spend on its export good,

the transfer of income improves its terms of trade. If it has a higher marginal propensity to spend on its export good, its terms of trade will worsen. The opposite will be the terms of trade effect on the lender country.

The effect of a transfer on the terms of trade of a debtor country is illustrated in Fig. 1. The curve D is the demand curve for good A relative to good B . S is the given supply curve. The higher marginal propensity to spend on the export good A relative to B with transfer of income to the creditor country, reduces its demand for A . This is shown by the leftward shift of the D curve to D_1 . The new equilibrium

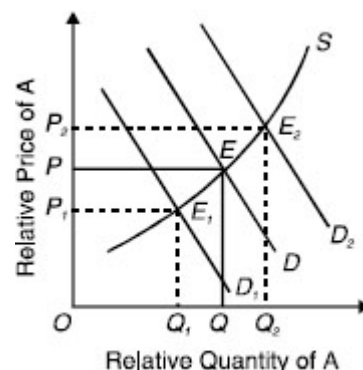


FIG. 1

is at E_1 . The relative quantity of A has fallen from OQ to OQ_1 and its relative price from OP to OP_1 . This shows worsening of its terms of trade. On the other hand, if the debtor country has a lower marginal propensity to spend on A , the transfer of income to the creditor country would raise and shift the relative demand curve to the right from D to D_2 and increase the relative price of A from OP to OP_2 . This shows improvement in the terms of trade.

To take the *budgetary aspect* of the external transfer problem of the debtor country, it requires some type of expenditure switching or expenditure-reducing policies such as exchange rate depreciation, cutting fiscal deficits or direct controls. These policies reduce imports and increase the debtor country's exports thereby generating export surplus which is used for repayment of debts.

So far as the *internal aspect* of the *transfer problem* is concerned, it involves cut in expenditures and increase in revenues. If the reduction in public expenditures and increase in revenues are not carried out through budgetary policies, inflation results which makes it difficult to repay the debt. For high inflation reduces the marginal propensity to save and invest in an LDC. Exports are reduced and imports rise. Fiscal deficit increases which leads both to a crowding out of private investment and to cut in government expenditures that

reduce public investment. under the circumstances, an LDC can solve its transfer problem of debt repayment by controlling inflation, increasing exports and reducing imports through various external and internal policy measures.

EXERCISES

1. What do you mean by transfer problem? How can the debtor developing countries solve the problem of repayment of their debts.
2. Explain the transfer problem. How does it affect the terms of trade of a debtor country?

PART FOUR

INTERNATIONAL ECONOMIC RELATIONS



FOREIGN TRADE AND ECONOMIC DEVELOPMENT

1. INTRODUCTION

The role of foreign trade in economic development is considerable. The classical and neo-classical economists attached so much importance to international trade in a country's development that they regarded it as an engine of growth. The opposite view holds that historically foreign trade has led to international inequality whereby the rich countries have become richer at the expense of the poor countries. It is, therefore, contended that even if LDCs are required to sacrifice the gains from international specialisation, they can attain a higher rate of development by following the policies of import substitution. We shall first discuss how international trade helps economic development and then the opposite view as to how far it has inhibited the development of LDCs.

2. IMPORTANCE OF FOREIGN TRADE

Foreign trade possesses great importance for LDCs. It provides the urge to develop the knowledge and experience that make development possible, and the means to accomplish it.¹ Haberler opines, “My overall conclusion is that international trade has made a tremendous contribution to the development of less-developed countries in the 19th and 20th centuries and can be expected to make an equally big contribution in the future . . . *and* that substantial free trade with marginal, insubstantial corrections and deviations, is the best policy from the point of view of economic development.”²

DIRECT BENEFITS

When a country specialises in the production of a few goods due to international trade and division of labour, it exports those commodities which it produces cheaper in exchange for what others can produce at a lower cost. It gains from trade and there is increase in national income which, in turn, raises the level of output and the growth rate of economy. Thus, the higher level of output through trade tends to break the vicious circle of poverty and promotes economic development.

¹ A.K. Cairncross, *op. cit.*

² G. Haberler, *International Trade and Economic Development*, 1959. Italics mine.

An LDC is hampered by the small size of its domestic market which fails to absorb sufficient volume of output. This leads to low inducement to investment. The size of the market is also small because of low per capita income and of purchasing power. International trade widens the market and increases the inducement to invest income and savings through more efficient resource allocations.

Myint³ has applied Smith's "vent for surplus" theory to the LDCs for measuring the effects of gain from international trade. The introduction of foreign trade opens the possibility of a "vent for surplus" (or potential surplus) in the primary producing LDCs. Since land and labour are underutilised in the traditional subsistence sector in such a country, its opening up to foreign trade provides larger opportunities to produce more primary products for export. It can

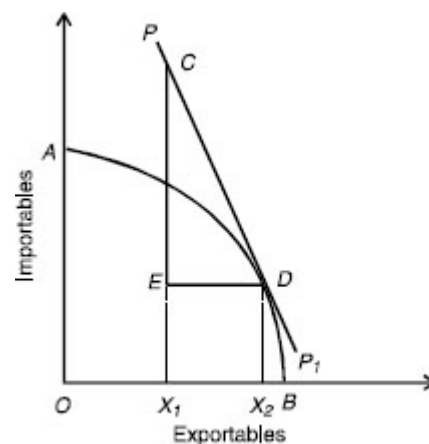


FIG. 1

produce a surplus of primary products in exchange for import of manufactured products which it cannot itself produce. Thus, it benefits from international trade. The vent for surplus theory, as applied to an LDC, is explained in Fig. 1. Before trade with underutilised resources, the country is producing and consuming OX_1 of primary products and X_1E of manufactured products at point E inside the production possibility curve AB . With the opening up of foreign trade, the production point shifts from E to D on the production possibility curve AB . Now the utilisation of formerly underutilised land and labour enables the country to increase its production of primary exportables from OX_1 to OX_2 without any sacrifice in the production of other goods and services. Given the international terms of trade line PP_1 , the country exchanges ED ($= X_1X_2$) more of primary exportables against EC larger manufactured importables.

Moreover, many under-developed countries specialise in the production of one or two staple commodities. If efforts are made to export them, they tend to widen the market. The existing resources are employed more productively and the resources allocation becomes more efficient with given production functions.

As a result, unemployment and underemployment are reduced; domestic savings and investment increase; there is a larger inflow of factor inputs into the expanding export sector; and greater backward and forward linkages with other sectors of the economy. This is known as the "staple theory of economic growth", associated with

Watkins.⁴ Foreign trade also helps to transform the subsistence sector into the monetized sector by providing markets for farm produce and raises the income and the standards of living of the peasantry. The expansion of the market leads to a number of internal and external economies, and hence to reduction in cost of production. These are the direct or static gains from international trade.

³. H. Myint, "The Classical Theory of International Trade and the Under-developed Countries," *E.J.*, June, 1958.

⁴. M.H. Watkins, "The Staple Theory of Economic Growth", *Canadian Journal of Economics and Political Science*, May, 1963.

INDIRECT BENEFITS

Besides, there are indirect dynamic benefits of a high order from foreign trade, as pointed out by Mill. By enlarging the size of the market and the scope of specialisation, international trade makes a greater use of machinery, encourages inventions and innovations, raises labour productivity, lowers costs and leads to economic development. Moreover, foreign trade acquaints people with new products, tempts and goads them to work harder to save and accumulate capital for the satisfaction of their new wants. It also leads to the importation of foreign capital and instills new ideas, technical know-how, skills, managerial talents and entrepreneurship. Lastly, it fosters healthy competition and checks inefficient monopolies.⁵ Let us study these indirect benefits of foreign trade to under-developed countries in detail.

1. Import of Capital Goods Against Export of Staple Commodities. Foreign trade helps to exchange domestic goods having low growth potential for foreign goods with high growth potential. The staple commodities of under-developed countries are exchanged for machinery, capital goods, raw materials, and semi-finished products required for economic development. Being deficient in capital goods and materials, they are able to quicken the pace of development by importing them from developed countries, and establishing social and economic overheads and directly

productive activities. Thus, larger exports enlarge the volume of imports of equipment that can be financed without endangering the balance of payments and the greater degree of freedom makes it easier to plan domestic investment for development.

2. Important Educative Effects. Foreign trade possesses an “educative effect”. Under-developed countries lack in critical skills, which are a greater hindrance to development than is the scarcity of capital goods. Foreign trade tends to overcome this weakness. For, it is, in the words of Haberler, “the means and vehicle for the dissemination of technical knowledge, the transmission of ideas, for the importation of know-how skills, managerial talents and entrepreneurship.” The importation of ideas, skills and know-how is a great stimulus to technological progress in under-developed countries. It provides them with an opportunity to learn from the successes and failures of the advanced countries. Foreign trade helps in accelerating the development of poor countries by facilitating the selective borrowing of ideas, skills and know-how from the developed countries and adopting them in accordance with their factor endowments. Even the rapid development of the USA, Japan and Soviet Russia has been the result of the educative effect of foreign trade.

3. Basis for Importation of Foreign Capital. Foreign trade provides the basis for the importation of foreign capital in LDCs. If there were no foreign trade, foreign capital would not flow from the rich to the poor countries. The volume of foreign capital depends, among other factors, on the volume of trade. The larger the volume of trade, the greater will be the ease with which a country can pay back interest and principal. It is, however, much easier to get foreign capital for export-increasing industries than for import substitution and public utility industries. But from the point of view of the importing country, the use of foreign capital for import substitution, public utilities and manufacturing industries is more beneficial for accelerating development than merely for export promotion. Foreign capital not only helps in increasing employment, output and income but also smoothens the balance of payments and inflationary pressures. Fur-

ther, it provides machines, equipments, know-how, skills, ideas, and trains native labour.

4. Checking of Inefficient Monopolies. Foreign trade benefits an LDC indirectly by fostering healthy competition and checking inefficient monopolies. Healthy competition is essential for the development of the export sector of such economies and for checking inefficient exploitative monopolies that are usually established on the grounds of infant industry protection.

Conclusion. Thus foreign trade, in addition to the static gains resulting from efficient resource allocation with given production functions, powerfully contributes in four ways indicated above, by transforming existing production functions and pushing them upwards and outwards.⁶

⁵. G. Haberler, *op. cit.*

⁶. G. Haberler, *op. cit.*

ITS CRITICISMS

The foregoing analysis, based as it is on the comparative cost doctrine, has been criticised by economists like Prebisch, Singer and Myrdal.⁷ They opine that historically international trade has retarded the development of LDCs. Three arguments are usually advanced in support of this view that international trade has impeded development.

1. Strong Backwash Effects. International trade has strong backwash effects on the LDCs, according to Myrdal. He writes, "Trade operates (as a rule) with a fundamental bias in favour of the richer and progressive regions (and continues) and in disfavour of the less developed countries."⁸ Unhampered trade between two countries of which one is industrial and the other underdeveloped, strengthens the former and impoverishes the latter. The rich countries have a large base of manufacturing industries with strong spread effects. By exporting their industrial products at cheap rates

to LDCs, they have priced out the small-scale industry and handicrafts of the latter. This has tended to convert the backward countries into the producers of primary products for exports. The demand for primary products being inelastic in the export market, they suffer from excessive price fluctuations. As a result, they are unable to take advantage of either a fall or a rise in the world prices of their exports. The importing countries take advantage of the cheapening of their products because of the inelastic market for their exports. Similar advantages follow when there is any technology improvement in their export production. When the world prices of their products rise, they are again unable to benefit from it. Increased export earnings lead to inflationary pressures, malallocation of investment expenditure and balance of payments difficulties when they are wasted in speculation, conspicuous consumption, real estate, foreign exchange holdings, etc.

2. Adverse Effect of International Demonstration Effect. It has been contended that the operation of the international demonstration effect through foreign trade has adversely affected capital formation in LDCs.

3. Secular Deterioration in Terms of Trade. In the opinion of Prebisch there has been a secular deterioration in the terms of trade of the LDCs. It implies that there has been an international transfer of income from the poor to the rich countries and that the gains from international trade have gone more to developed countries at the expense of the former, thereby, reducing their level of real income and hence capacity for development.

OVERVIEW

But all these criticisms are unfounded. There is no empirical evidence to prove that the development of the export sector has been at the expense of the domestic sector. Foreign trade has not always stood in the way of domestic investment. Nevertheless, as pointed out by Nurkse, “even unsteady growth through foreign trade is surely better than no growth at all.”

The adverse effects of the demonstration effect are also exaggerated. Emulation of higher standards of living and superior consumer goods act as incentives to increased efforts and productivity on the part of the people of LDCs. It encourages the development of service occupations to supply superior goods. It also exercises a healthy influence in stimulating local initiative and enterprise. Again, the adoption of the Western consumption standards tends to influence the subsistence sector favourably. The incorporation of milk, eggs, vegetables, and fruits in diet induces agriculturists to produce them more for the market, in addition to subsistence production. It involves the investment of more capital and making improvements in agriculture, dairy and poultry production. This also provides increased employment, income and leads to further capital accumulation. The subsistence economy itself tends to be converted to an exchange economy gradually. The government is encouraged to provide more amenities in the form of improved means of transport, communications, irrigation, power etc. There is also a tendency on the part of the people to move from the villages to towns to seek jobs in those secondary and service occupations which produce the new consumer goods and services. Imitation of advanced production methods further helps in increasing the rate of capital accumulation in LDCs. Governments in such countries have encouraged the transmission of improved techniques like the L-D process of steel production, the introduction of high-yielding maize hybrids, and Mexican wheat, the Japanese method of rice cultivation, improved seeds and fertilizers, etc. It is, therefore, not wholly correct to say that international demonstration effect inhibits the propensity to save and the rate of capital formation in LDCs. In fact, by imitating the consumption and investment patterns of the advanced countries, they have been able to accelerate the pace of economic development.

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7. R. Prebisch, *The Economic Development of Latin America and its Principal Problems*, 1950;
H.W. Singer, 'The Distribution of Gains between Investing and Borrowing Countries', *American Economic Review*, May 1950;
G. Myrdal, *An International Economy*, 1956.

[8.](#) G. Myrdal, *Challenge to Affluence*, 1963.

So far as the problem of deterioration in the terms of trade of the LDCs is concerned, it is conjectural and based on obsolete data. In the first instance, every LDC is dependent upon a very narrow range of export of primary products. Moreover, such countries produce only a part of the world's total exports of minerals and agricultural products. Cairncross has shown that in 1937 the volume of primary products from the industrial countries was slightly lower than in 1913 while export from non-industrial countries were over 50 per cent higher. By 1950, there has been a spectacular change when exports from other countries fell sharply. In 1957, both groups had added 50 per cent to the volume of their exports of primary products. Thus, both groups experienced 50 per cent expansion in the volume of exports between 1950-57. *Lastly*, this view fails to take into account changes in the pattern of exports and imports of under-developed countries. LDCs are no longer exporters of primary products and importers of manufactures. According to GATT, they import only one-third of their total consumption of manufactured articles and even this proportion is on the decline. They produce the remaining two-thirds at home.^{[9](#)} Mostly they import capital goods, raw materials and foodstuffs. Manufactured consumer goods hardly form 10 per cent of their total imports. on the other hand, their exports consist of textiles, light engineering goods, machine tools, steel, and a variety of manufactured consumer goods. The reason for the deterioration in terms of trade of underdeveloped countries has not been the declining world demand for their primary products, but inflationary pressures leading to high costs and prices, and a large external deficit which acts as a drag on their exports.

CONCLUSION

Thus it is an erroneous view that international trade has operated as a mechanism of international inequality and has retarded the development of LDCs. Rather, foreign trade has acted as an *engine of growth* for them. Thus Cairncross is right in saying, "Over the past century and a half the growth of international trade has continued to open up new opportunities of specialisation and development for the

countries engaged in it. These opportunities were particularly in the primary producing countries overseas that were still in the process of settlement, since trade enabled them to bring into use unexploited natural resources and freed them from the limitations of their own domestic markets.”

EXERCISES

1. Discuss the role of foreign trade in economic development of an underdeveloped country.
2. Discuss whether foreign trade is an engine of growth or exploitation for less developed countries.

[9.](#) *International Trade*, 1959, GATT.



COMMERCIAL POLICY AND INWARD-LOOKING AND OUTWARD-LOOKING POLICIES

1. MEANING

Commercial policy plays an important part in the economic development of LDC. Commercial policy may be defined as one that helps in accelerating the rate of economic development : (a) by enabling the under-developed country to have larger share of the gains from trade; (b) by augmenting the rate of capital formation; (c) by promoting industrialization; and (d) by maintaining equilibrium in the balance of payments.

2. COMMERCIAL POLICY FOR ECONOMIC DEVELOPMENT

Various arguments have been put forth in support of such a commercial policy which inevitably aims at the adoption of protection.

1. The Terms of Trade Argument. The increase in the gains from trade of an under-developed country is based on the terms of trade argument. A shift in the terms of trade in favour of an under-developed country is tantamount to an increase in its national income. if a country imposes a tariff that brings about a fall in import prices or a rise in export prices, it will result in improving its terms of

trade. This will naturally help in financing economic development. For, its income will increase and it will be in a position to import larger quantities of capital goods.

Its Limitations. on the face of it, this arguments sounds logical, but it is not without certain reservations. *First*, an improvement in the terms of trade will have little relevance to capital formation, if the increased income is not saved but dissipated on domestic and imported goods. Mere saving is not enough. What is required is its investment in capital goods. *Second*, for such a tariff policy to be successful, the tariff-imposing country should have sufficient monopoly or monopoly power. But this is not possible unless the under-developed countries act as a united economic group. in reality, such a policy is impracticable because of the small size of the domestic market for an importable commodity, and the ability of the developed countries to develop local substitutes for the natural products of such countries. *Third*, a tariff policy of this type is effective only if the “foreign-offer curve” is inelastic. But in the case of under-developed countries, the foreign offer curve is usually elastic. As a result, they supply less exports and demand less imports as the price of imports rises. The higher is this elasticity, the greater will be the fall in the volume of trade as a result of the imposition of tariff. These price elasticities of supply and demand act as one of the important limitations to the terms of trade argument. However, discounting all these limitations, “it is likely that the gain from trade would be only a short-term gain which would be eliminated quickly by retaliatory measures by other countries,” changes in elasticities or by changes in the government's “expenditures of customs revenue or an internal redistribution of income.”¹

2. The Saving Ratio Argument. One of the principal sources of capital formation is an increase in the tempo of investment by stepping up domestic savings. Domestic savings can be stepped up by restricting the importation of consumer goods through direct controls or prohibitive duties. The consumption expenditure is thereby reduced which is equivalent to an increase in savings. This increase in savings is, in turn, utilized for importing capital goods.

Thus for capital formation, the necessary condition is that a reduction in the imports of consumer goods must be followed by an increase in the import of capital goods of the same value.

Its Limitations. But this argument is also not free from limitations. *First*, if the import restrictions do not result in reducing consumers' expenditure, but lead to a shift of expenditure from imported to domestic consumption goods, the demand for the latter goods will rise in relation to their supply and there will be an inflationary pressure on prices and costs. As Nurkse puts it aptly, "When the escape valve of consumable imports is shut off, the pressure of the steam in the system increases, demand becomes excessive in relation to domestic supply and tends to push up the level of prices."² *Second*, the increase in home consumption will also occur at the cost of home investment because increased consumption draws domestic factors away from capital construction or maintenance. Leaving aside an increase in voluntary savings, capital formation can, however, take place by purchasing imported capital goods through forced savings that results from inflation. *Third*, if the import restrictions on luxury consumption goods are not accompanied by similar restrictions on the domestic production of these goods, domestic savings will be sucked into non-essential channels. Thus, the "economy surrenders through the back-door what it secures by the front-door." it cannot be denied that economic growth does take place in this way, but it takes a needlessly painful and contorted form. *Fourth*, this argument assumes that a policy of import restriction on consumption goods does not affect exports adversely. if import restrictions are placed to protect domestic import-competing industries, they are likely to attract resources away from the export industries. Then the exports will be adversely affected. it is also possible that the incentive to peasants to produce the exportable crops may be dampened by the denial of imported consumption goods. *Fifth*, a policy of import restrictions leading to an increase in domestic costs and prices may have an unhealthy effect on exports. Thus, Nurkse observes : "The simple idea that more capital can be got for the country merely by pinching and twisting the foreign trade sector is an instance of the fallacy of mis-played concreteness."³

3. The Foreign Investment Argument. Protection also acts as a source of capital formation by attracting direct foreign investment in the under-developed country. one of the methods is the setting up of tariff factories in the tariff imposing country by the foreign manufacturer in order to escape the import controls. The foreign manufacturer may set up a branch or subsidiary of his firm alone or in collaboration with local enterprise behind the tariff wall when the finished products are prohibited while raw materials and necessary parts are permitted duty free. Some of the foreign industrial investment in India, in recent years, has been of this type. But the main obstacle in the flow of direct foreign capital has been the small size of the domestic market for the restricted imports in the under-developed countries. A wide domestic market acts as a big incentive in attracting foreign capital. As Nurkse puts it bluntly : “Tariff protection, if it can help at all, can only help the strong, it cannot help the weak.”⁴

¹. Meier and Baldwin *op. cit.* p. 404. Italics mine.

². *Ibid.*, p. 112.

³. *Ibid.*, p. 115.

4. The Infant Industry Argument. The famous Listian “infant industry” argument in favour of protection gives enough inducement to under-developed countries in accelerating their pace of industrialization. There are some industries which can be fruitfully developed in countries provided they are protected from foreign competition. In the present, their cost of production may be more due to the lack of certain basic facilities, but in due course of time, after the initial difficulties are overcome, their products would cost less. The future fruits of industrialization would more than compensate for the sacrifice undergone in the form of higher prices in the present. Thus the argument is that “infant” industries need protection from foreign competition till they attain adulthood. The period between infancy and adulthood is generally characterized by a transition from the agricultural to the industrial stage. Myrdal has assigned “four

special reasons for industrial protection in under-developed countries—the difficulties of finding demand to match new supply, the existence of surplus labour, the large rewards of individual investments in creating external economies, and the lop-sided internal price structure disfavours industry.”⁵ These reasons are inter-related and provide an “infant economy” case for protection to an under-developed country.

Its Limitations. But it has its limitations. *First*, according to Nurkse, infant industry protection alone is an ineffective instrument of promoting economic development because it overlooks the problem of capital supply. *Second*, infant industry protection should not be given before the industry has been actually set up. As Nurkse said, “infant creation must take precedence over infant protection.” *Third*, tariff protection cannot create or increase the supply of capital required by the infant industry. It can, however, make a contribution on the demand side by increasing the inducement to invest in the protected industry. But this argument is confined only to creating demand for import substitutes. *Fourth*, it is also doubtful whether the stress on import substitutes will be enough to lead to a balanced growth of the economy. For, without an overall growth of the economy, investment in the import competing industries will be very small. Nurkse cautions that too much reliance on import restrictions should be avoided because the import substitutes produced at home are costly and tend to reduce real income.⁶ *Fifth*, given that the infant industry has been created, it must satisfy a number of conditions for the policy of protection to be successful. It is essential that the industry would not develop without the help of protection and that eventually it would be able to stand on its own legs when protection could be removed. Above all, it should acquire enough skill and experience to produce at low costs. It implies that though in the initial stages there may be losses, yet in the future the industry should be in a position to realize sufficient saving in costs. *Sixth*, it is also difficult to decide the amount and the period of protection to be given to the infant industry. *Seventh*, the right selection of infant industries is somewhat uncertain.

5. External Economies Argument. Another argument for protection is that the establishment and development of every new industry yields benefits in the form of external economies. These external economies result in a divergence between private profit and social benefit. And when such divergence arises, a case can be made for import restrictions or subsidization in order to lessen this divergence. Scitovsky⁷ maintains that the concept of external economies in the context of industrialization of under-developed countries is used in connection with the social problem of allocating savings among alternative investment opportunities.

⁴. *Ibid*, p. 106.

⁵. G. Myrdal, *An International Economy*, p. 279.

⁶. Nurkse, *op. cit.*, pp. 105-8.

⁷. Tibor Scitovsky, "Two Concepts of External Economies" in Aggarwal and Singh (ed.), *op. cit.*, pp. 295-303.

External economies are generally classified as "technological" and "pecuniary" external economies. They arise because of direct interdependence among the producers. "Technological external economies exist whenever the output of a firm depends not only on the factors of production utilized by this firm but also on the output and factor utilization of another firm or group of firms."⁸ These "technological external economies" affect the firm's output through changes in its production function. According to Scitovsky, "Pecuniary external economies are invoked whenever the profits of one producer are affected by the actions of other producers." He explains, further that with an expansion in the capacity of an industry as a result of investment, prices of its products fall and the prices of the factors used by it rise. The lowering of product prices benefits their consumers and the rising of factor benefits their suppliers. When these benefits accrue to firms in the form of profits, they are pecuniary external economies.

Its Limitations. The external economies argument has the following limitations : *First*, if production costs of firms in other industries are lowered as a result of expansion in the capacity of the protected industry, due to the emergence of technical or pecuniary external economies, 'the private profitability understates its social desirability in this situation.' As a result, the production of commodities will be less than optimal. In other words, investment decisions will be less than optimal, if investment in the protected industry increases the profitability of another industry. This protection granted to a range of complementary industry is socially more profitable whereas in the case of isolated industries, it might be less profitable. As Scitovsky emphasises, "only if expansion in industries were integrated and planned together, would the profitability of investment in each one of them be a reliable index of social desirability?" *Second*, Myrdal is of the view that greater external economies are realizable in export as well as import-competing industries. *Third*, in reality, one must count only the net external economies—the external economies minus diseconomies—accruing to domestic nationals and leave out of account the pecuniary external economies accruing to foreign buyers from the expansion of export industries and the diseconomies inflicted on foreign competitors by the expansion of import competing industries. Accordingly, investment in export industries, concludes Scitovsky, is always less and that in import competing industries, is always more desirable from the national point of view.

6. Factor Redistribution Argument. It is contended that in an under-developed country the gap in prices and costs between agriculture and industry is so wide that it hampers the development of industry. This view was first of all put forth by M. Manoilescu⁹ who advocated protection for industry since industry was more productive than agriculture. Lewis and Myrdal have restated the argument in recent years.

In over-populated under-developed countries, the money wages of labour in industry exceed the cost of labour in alternative uses. Due to the existence of the extended family system and under-employment in the rural areas, wages tend to be low in agriculture

and high in industry. An under-employed or unemployed worker in the rural area will not be prepared to accept a job in the town unless the wages offered exceed his share of the family income. From the point of view of the society, the value of the worker's output is smaller than what he is prepared to accept in an alternative job in the town, since his marginal product is negligible or zero as he is under-employed or unemployed. Thus, a policy of protecting industries is called for in order to compensate for this gap in money and social costs and also to provide viable employment opportunities for the surplus labour force. Myrdal states that in an under-developed country the span between wages in manufacturing industry and in agriculture tends to be particularly broad. This will hamper industry if it is not given protection to a corresponding degree. Moreover, the social costs for labour in industry are actually lower than money costs. And protection will compensate for this gap in labour costs between agriculture and industry. It is maintained that since agriculture is less productive than industry, real income can be raised by factor redistribution through a policy of protection.

[8.](#) J.E. Meade, "External Economies and Diseconomies in a Competitive Situation," *Economic Journal*, March 1952.

[9.](#) M. Manoilescu, *Theory of Protection and International Trade*, 1931.

Its Limitations. This argument is also not free from limitations. *First*, this argument is not cogent when applied to the problem of disguised unemployment existing in under-developed countries. If a portion of surplus working force (whose marginal productivity in agriculture is zero) is withdrawn from agriculture and gainfully employed in industry, it will raise the real income of the country. For this purpose industries are to be protected against foreign competition. *Second*, we have already discussed the various aspects of the problem of 'disguised unemployment.' Given that disguised unemployment does exist, should protection be given in order to transfer surplus labour force from agriculture to industry? Nurkse's solution to this problem is not through industrialization but by employing surplus labour in capital projects. The problem is not one of protecting industry but of

stimulating labour mobility by removing the various social and institutional barriers. *Third*, this “superiority of industry” argument is, however, untenable in the context of economic growth. A country is poor not because of the agricultural bias of its economy but due to low agricultural productivity. In fact, for rapid economic growth, agricultural development must keep pace with industrial development. Agricultural productivity should continue to increase in order to provide food to a growing population, to supply raw materials to expanding domestic industries, to earn more foreign exchange, and above all to accelerate the rate of capital formation. Too much emphasis on industry is, therefore, likely to adversely affect agriculture and exports. Thus, primary production cannot be regarded as a cause of poverty. It is an associative characteristic of poverty, but not a causative characteristic.¹⁰

7. The Balance of Payments Argument. One of the principal objectives of commercial policy in an under-developed country is to prevent disequilibrium in the balance of payments. Such countries are prone to serious balance of payments difficulties to fulfil the planned targets of development. An imbalance is created between imports and exports which continues to widen as development gains momentum. This is due to increase in imports and decline in exports. To establish economic infrastructure like power, irrigation, transport projects, etc. and directly productive activities like iron and steel, cement, electricals, etc. under-developed countries have to import capital equipment, machinery, raw materials, spares and components in large quantities thereby raising the import content of their foreign trade.

Another cause of the rise in imports is the growing demand for foodgrains necessitated by a rapidly growing population. For instance, India had been importing on an average 3 million tonnes of foodgrains every year. So food imports are an important factor in creating an unfavourable balance of payments in under-developed countries.

Apart from foodgrains many essential consumer goods are imported to meet the domestic demand because it cannot be met adequately by indigenous production. This equally applies to capital equipment needed by the private sector of the economy.

Another important factor responsible for growing imports of such countries is the policy of import substitution. It requires the establishment of such industries within the economy which ultimately replace imports. This policy, in itself, necessitates the import of large quantities of machinery, capital equipment, spares, raw materials, etc., to set and operate such industries.

[10.](#) Meier and Baldwin, *op, cit.*, p. 400.

Almost all under-developed countries have emerged as independent nations after a long spell of colonial rule. They, therefore, prize their hard won independence above everything. For this, they prepare themselves to ward off any external invasion and internal rebellion. This had led to heavy imports of defence equipments.

Another important cause of the balance of payments difficulties in such economies is inflation. As the economy moves on the path to development, heavy investment expenditure flowing from deficit financing lead to strong inflationary pressure. Rise in domestic incomes, costs, and prices encourage imports and discourage exports. This makes the balance of payments position serious.

Further, balance of payments disequilibrium arises when a developing economy needs foreign exchange to service foreign borrowings. Such economies have to pay back the principal and interest on borrowings from the developed economies. Besides, they have to make payments for the services of *invisible items*, i.e., transportation and insurance charges on imported goods. All these require larger foreign exchange which, being already scarce, accentuates the balance of payments position.

On the other hand, *exports* lag behind imports. Exports of underdeveloped countries lack variety and resilience. These countries produce primary products, mainly raw materials and agricultural commodities. Hence their markets are limited and highly competitive. Moreover, they are unable to export more on account of increased domestic consumption of exportable products due to rising income and increase in income elasticity of demand for consumer goods. Another problem is their high cost of production due to inflationary pressure. In the face of highly competitive international markets, high cost is a big hurdle to exports. Again, tariff barriers, quota restrictions and regional economic groupings also keep down the exports of underdeveloped countries. *Lastly*, bad quality of exportable goods and the absence of proper credit facilities to sell goods in foreign countries have been instrumental in keeping their exports low. Thus, the above factors have tended to keep exports down and imports high thereby creating a perpetual problem of balance of payments in underdeveloped countries.

MEASURES TO OVERCOME BALANCE OF PAYMENTS DIFFICULTIES : INWARD-LOOKING VS OUTWARD-LOOKING POLICIES

The gap between imports and exports can be bridged by increasing exports and cutting down imports. For this purpose, underdeveloped countries rely upon two trade strategies that of export promotion and import substitution. The former is called the *Outward-looking export-led strategy* and the latter is referred to as the *inward-looking strategy*. We discuss them one-by-one.

OUTWARD-LOOKING OR EXPORT PROMOTION STRATEGY

An outward-looking (or outward-oriented or export-led) strategy is one in which trade policies do not discriminate between production for the domestic market and exports. In this strategy, trade controls and licensing arrangements are either limited or non-existent. But export incentives are provided to producers of exportables. The aim is to expand the production of not only traditional but also non-traditional products and manufactures for export. The export sector is treated not separate from the rest of the economy but as an

integral part of the production process of the whole economy. Production for exports leads to large economies of scale and reduction in costs of production with the expansion of the export market. They also increase the foreign exchange revenue, greater capacity utilisation and increase in factor productivity. As a result, the production for exports will have both forward and backward linkage effects. The use of modern techniques and methods of production lead to external economies through the spread of technical knowledge, training of labour, etc. which will benefit other activities in the economy. The growth of the export sector will also have important backward linkages. The production of export goods provides a strong stimulus for expansion of the input-supplying industries in the economy. Moreover, the growth of the export sector leads to the development of the infrastructure sector of the economy.

Finally, an outward-looking trade strategy encourages higher rate of savings by raising incomes through multiplier effects, as growing exports lead to better utilisation of resources and larger capacity utilisation. In underdeveloped countries, domestic savings rise further because a large share of income generated by exports is saved. Moreover, a larger surplus above domestic consumption is mobilised through exports in the form of taxation and saving. This along with foreign capital is more likely to increase investment and income further. This, in turn, leads to a more equitable distribution of income through the expansion of labour-intensive exports thereby providing more employment.

The specular economic growth of the high performance Asian economies-Hongkong, Taiwan, South Korea, Singapore (the four “tigers”), Malaysia, Thailand and Indonesia—has been due to the export-led outward-looking trade strategy.

Now we outline the measures which are adopted by underdeveloped countries for export promotion to implement this strategy.

1. Export Promotion. As a first step for export promotion, comprehensive commodity surveys should be made in developed countries to determine potential markets. On the basis of these

surveys, production of commodities with export potentialities should be increased. Exports of non-traditional items should be encouraged for they are needed both by the developing and developed countries. They should also start processing their primary products and improve the quality of their traditional exports. Myrdal observes in this connection: "They should seek out for themselves the dynamic commodities with rising demand trends and with high income and price elasticities and try to get away from those with a doubtful future."¹¹ This policy, in turn, necessitates the adoption of the following measures :

(i)An essential pre-condition for the fulfilment of the export programme is the realization of the production targets set in the agricultural, mineral and industrial sectors of the economy;

(ii)Restraining the growth of domestic consumption of commodities through fiscal or other measures in order to create adequate export surplus;

(iii) Maintenance of reasonable internal price stability;

(iv) Modernisation of export-oriented industries;

(v)Timely import of raw materials and capital equipments needed for the production of exportable goods and even supplying them at subsidized prices;

(vi)Relaxation or removal of export restrictions on exportable goods;

(vii)Provision of credit, insurance and transport facilities to exporters;

(viii)Tax concessions to exporters using imported raw materials, semi-processed goods or components in the manufacture of exportable commodities;

(ix)Stabilisation of prices of exportable goods;

(x) Measures for the introduction and enforcement of quality control and compulsory pre-shipment inspection of various exportable commodities.

(xi) Establishment of a commercial intelligence service for the compilation and dissemination of information to guide exporters and foreign importing firms;

(xii) Establishment of a trading company to represent business interests of exporters foreign countries having branches in key centres of the world;

[11.](#) G. Myrdal, *op. cit.*, p. 854.

(xiii) Promotion and participation in industrial and trade fairs abroad and to arrange visual commercial publicity for the purpose of export promotion;

(xiv) Setting up export promotion councils for major export goods.

(xv) Conclusion of bilateral trade agreements with developed countries;

(vi) Co-operation among developing countries in the sphere of foreign trade. Since most of the under-developed countries export almost similar types of products, they enter into competition with one-another which is detrimental to them. Nurkse, Myrdal and others have, therefore, suggested co-operation among them in the field of international trade. It may be co-operation in a particular region or the creation of a common market among countries of the same character. This is the only way to boost up the trade of underdeveloped countries by increasing their bargaining strength in the world market. If the policy of "cooperation" is not followed by the developing countries, it may lead to *export pessimism*, that is, future world demand will not support their exports to developed countries. But according to Bela Balassa, empirical studies have shown that intraindustry trade of developed countries with developing countries

has increased much more rapidly than with other developed countries.

INWARD-LOOKING OR IMPORT SUBSTITUTION STRATEGY

An inward-looking trade strategy is that in which trade is biased in favour of production for the domestic market and against the export market. The strategy is to cut down imports of consumer goods and produce them at home. As Myrdal has pointed out, "The danger on the foreign exchange front provides a reason for directing investments in industry towards production of commodities that are substitutes for imports." According to Hirschman, there are four impulses of import substituting industrialization. They are the balance of payments difficulties, wars, gradual growth of income, and deliberate development policy. The first leads to a bias in favour of non-essential industries and the last is likely to produce exactly the opposite bias. The two motivating forces of industrialization by import substitution in developing countries have been balance of payments difficulties and deliberate development policy. The measures which are adopted in pursuance of these two impulses are import duties, quotas and import of exchange surcharges and multiple exchange rates as price-protective devices, while tax exemptions and subsidies are used to reduce costs in import-competing industries. Import substitution necessarily begins with the manufacture of durable consumer goods at the final stages of production. The country imports many converting, assembling and mixing plants and turns out finished consumer goods that were previously imported and then moves on, more or less rapidly and successfully, to the higher stage of production—to intermediate goods and machinery through backward linkage effects.^{[12](#)}

Case for Import Substitution. The case for import substitution rests on the grounds that trade had operated historically as a mechanism of international inequality to the disadvantage of backward countries. They are, therefore, justified in adopting the strategy of industrialization by import substitution for the purpose of achieving

self-sufficiency in the long run and to save foreign exchange by substituting imports by home production.

The experience of advanced countries is also cited in support of import substitution. H.B. Chenery has shown on the basis of historical studies of some countries that not only the share of industrial output rises with development, but also the growth of industries based on import substitution accounts for a large production of the total rise in industrial production.^{[13](#)}

One of the principal arguments for the policy of import substitution is that it avoids the uncertainties and risks involved in finding markets for the import substitution industries because when the imports are shut off, an already established market is secured for the new industries. Another argument is based on the contention that the demand of a developing country for industrial imports increases much more rapidly than the foreign demand for its exports. Such countries export primary products which have sluggish foreign demand and are therefore unable to import industrial products sufficiently in exchange for exports. Thus the need arises for producing industrial goods at home to meet the domestic demand.

^{[12](#)}. A.O. Hirschman, "The Political Economy of Import Substituting Industrialization in Latin America." *QJE*, February 1961.

^{[13](#)}. H.B. Chenery, "Patterns of Industrial Growth", *AERL* September, 1963.

Again, it is argued that import-substitution industrialization augments the rate of domestic savings and investments. When the state uses restrictive devices like tariffs, licences, quotas, etc. to protect import-substituting industries from foreign competition, the producers are able to raise the prices of their products and, thus, earn high profits. When these profits are saved and reinvested, development gains momentum. Moreover, it is argued that protection to import-substitution industries will turn the terms of trade against the unprotected sectors and, thus, change the distribution of income in such a

manner that savings and investment are encouraged in the economy.

Further, there is the employment argument in support of industrialization by import substitution. It is contended that import-substitution industrialization is necessary to provide gainful employment to the existing under-employed, to absorb surplus manpower arising from increases in agricultural productivity through the use of modern labour-saving techniques and to engage the growing labour force as population increases.

Another arguments for import-substituting industrialization is from the point of view of the *economic welfare* of the under-developed country in the long run. If the policy of import-substitution is carried through substantial amount of direct foreign investments, as is usually the case, the country benefits from modern industrial techniques and know-how. By directly participating in the technological know-how of the advanced countries, it is in a position to accelerate its rate of capital accumulation.

Lastly, the ultimate aim of industrialization via import-substitution is two-fold : (i) to achieve self-sufficiency in the production of finished consumer goods, intermediate goods and machinery; and (ii) to export them to developing and developed countries.

Case Against Import-Substitution. The policy of import substitution being followed in India, Pakistan and in many Latin American countries has not been smooth. Rather, it has tended to disrupt the economies of under-developed countries thereby making their process of industrialization a costly one. Santiago Macario¹⁴, a Latin American economist, writes in this connection that anxiety to relieve the chronic shortage of foreign exchange has induced may Latin American countries to pursue an industrialization policy essentially geared to import substitution; and that the substitution process has not been effected gradually, in accordance with a plan, and in anticipation of development requirements but in make-shift fashion, frequently to meet emergencies, and on the basis of excessive and indiscriminate protection. Consequently, in many instances it has

been carried a good deal beyond the economically advisable limits, with the result that serious distortions have been introduced in the economic structure in the countries concerned and the development of more efficient and productive activities has been adversely affected to the special detriment of export possibilities. These observations equally apply to India, as will be shown later. We discuss arguments against imports substitution in the light of merits of this policy as given above.

14. S. Macario, "Protectionism and Industrialization in Latin America," *Economic Bulletin for Latin America*, March 1965.

The principal objective of the policy of import-substitution aimed at saving foreign exchange has been frustrated. The industries established have not been those that might have saved foreign exchange. In fact, the established industries have failed to produce any real savings, rather they have resulted in dissaving of foreign exchange. Under-developed countries lack in raw materials, intermediate goods and capital equipment to start import substitution industries. So the need for imports is much greater in this policy than otherwise. Thus, the direct savings of foreign exchange may be *less* than the indirect expenditure of foreign exchange on inputs and capital goods needed for import-substitution industries. It may even lead to dis-savings because the value of the inputs imported for the new industries may far exceed the value of goods replaced by domestic production.

The historical evidence adduced by Chenery in support of industrialization via import-substitution may not hold good in the case of all the developing countries. It is contended that the rise in industrial production has taken place through the growth of imports. The imports of raw materials, intermediate goods and capital equipment help in the establishment of the domestic industry in an under-developed country. In fact, the imports help in using the underemployed resources productively, in creating demand, and in encouraging entrepreneurial activities within the economy. It is the

imports which ultimately pave the way for the establishment of imports-substituting industries by creating a base for them.

The argument that import-substitution industrialization is essential to meet the domestic demand for industrial goods secured by shutting off imports overlooks the need for larger imports. According to Prof. Hirschman, "The bulk of new industries *in developing countries* are in the consumer goods sector and as they are undertaken in accordance with known processes, on the basis of imported inputs and machines, industrialization via import-substitution becomes a 'highly sequential's, or 'tightly staged', affair." The policy of import-substitution, thus, creates demand for a variety of imports and defeats the purpose for which it is adopted. Moreover, the tendency for import substitution to create demand for further imports has important consequences. *First*, instead of reducing, it increases the economy's dependence on imports. *Second*, sometimes the economy may be unable to import raw materials, capital equipment and spares due to the shortage of foreign exchange or its insufficient allocation to imported materials and spares. Consequently, this lead to under-utilization of manufacturing capacity resulting in work stoppages, unemployment and fall in income. *Third*, import substitution has a tendency to shift the distribution of income in favour of the urban sector and the higher income groups, whose expenditure pattern typically has the highest component of imports which tends to increase further the demand for imports. Thus the extension of substitution to a wider range of goods generates or increases the demand for further imports with bad effects on the economy.

John Power¹⁵ has argued that import substitution of finished consumer goods tends to lower rather than raise domestic savings and investment. The stress on the production of consumer goods for domestic use tends to raise their consumption and, thus, penalise exports and backward linkage import substitution. Such a policy leads to adverse effects on economic and technical efficiency, thereby reducing income, profits and savings. John Power, therefore, advocates investment in capital goods and export sectors rather than

into the consumer goods sector to augment the rates of national income, savings and investment for further growth.

The argument that the establishment of import-substituting industries tends to absorb surplus labour in under-developed countries has not been borne out by facts. There is no denying the fact that import-substitution expands output in the manufacturing sector but it has failed to create jobs for growing labour force in such countries. Griffin and Eros have shown that the growth of employment in manufacturing is not in the least comparable to the growth in output. In fact, employment seldom increases unless manufacturing output is growing by about 4 percent per annum. *Secondly*, industrial employment grows less rapidly than the population.¹⁶ For instance, over the period 1960-70 the average annual growth rate of output in Chile was 5.5 per cent while the growth rate of employment was 1.4 per cent. Similar was the case with Philippines where the growth rate of employment was only 2.1 per cent as against 6.7 per cent in output. This proves that industrialization via import substitution fails to create jobs so as to absorb redundant labour.

¹⁵. J. Power, "Import-Substitution as an Industrialization Strategy," *Philippines Economic Journal*, Vol. no 1966.

¹⁶. *Planning Development*, 1970.

Further, the use of the strategy of import-substitution as a means to achieve self-sufficiency in industrial production has led to mal-allocation to resources and a very bad effect on industrial productivity. In their enthusiasm to attain self-sufficiency, under-developed countries have resorted to indiscriminate protection for the development of inefficient and low-priority industries. As a result, raw materials, intermediate goods and equipments obtained at a high cost have been misused. Thus, such a policy has led to the establishment of inefficient industries with high production costs under extreme protection. This has been the experience of India in the field of import-substitution. According to V.V. Desai, the self-sufficiency goal led to the impression that whatever substituted

imports was good for the economy. As a result, substantial amounts of spare resources were used up in the production of such commodities as could be considered low priority consumption items. He estimated that the growth of such non-essential production resulted in the loss of potential savings to the tune of about Rs. 800 crores during 1954-55 and 1963-64.¹⁷ Further, this resulted in inadequate planning of the industrial structure and systematic under-estimation of the foreign exchange requirements of the programme for import-substitution. It also resulted in the need for foreign exchange exceeding availability, thereby forcing many industries to operate below capacity. He concludes that the misdirection of substantial investment into low priority industries and the evergrowing foreign exchange requirements have failed to achieve the goal of self-sufficiency in the industrial sector through import substitution.¹⁸ The same story has been repeated in the majority of Latin American countries.

Besides, according to Raul Prebisch,¹⁹ excessive protectionism in such economies has generally insulated national markets from external competitions. This has tended to weaken and even destroy the incentive to improve the quality of their products and to lower costs. High cost of production has necessitated recourse to excessive protectionism. This has, in turn, adversely affected the industrial structure because it has encouraged the establishment of small uneconomic units, weakened the incentive to introduce modern techniques, and slowed down the rise in productivity. Thus a vicious circle has been created as regards exports of manufactured goods. These exports encounter great difficulties as internal costs are high because, among other reasons, the exports which would enlarge the markets are lacking. Thus import-substituting industrialization has failed to encourage export of developing countries.

Conclusion. In conclusion, it seems that the policy of import substitution has failed to conserve foreign exchange. However, in certain cases it has intensified the shortage. The emphasis on import substitution on consumer goods has not been successful in

increasing real output, saving and investment. It has failed to bring the economy anywhere near the goal of self-sufficiency in industrial production. Neither has it succeeded in creating sufficient employment opportunities to absorb the growing labour force, nor has there been the progressive growth of the export sector.

But countries like India which has established industries for the manufacture of sophisticated machinery and equipment have achieved significant progress in import substitution. It has helped the country lay reasonably good foundation for self-reliance in respect of the future investment programmes and defence capability. There has been spectacular achievement in respect of basic industries like iron and steel, crude petroleum and products, fertilizers, heavy chemicals, aluminium and a variety of machinery, besides a number of durable consumer goods like bicycles, fans, sewing machines which the country also exports. India now produces about three-fourths of the capital equipment required for its development programmes through the policy of import substitution.

[17.](#) V.V. Desai, "Import Substitution and Growth of Consumer Industries," *Economic and Political Weekly*, 15 March, 1969.

[18.](#) V. V. Desai, "Pursuit of Industrial Self-sufficiency," *Economic and Political Weekly*, May 1, 1971 and "Neglect of Implications of Self-sufficiency Goal," *Ibid.*, July 1971.

[19.](#) *Towards a New Trade Policy for Development*, 1964.

EXPORT PROMOTION Vs IMPORT SUBSTITUTION

A pertinent question is : as between export promotion and import substitution which policy should be adopted by an under-developed country? Both policies have one common aim, *i.e.*, to overcome balance of payments difficulties. We have discussed above the disadvantages of the policy of import substitution. Instead of saving foreign exchange, it has tended to increase the demand for imported machinery, parts and equipments. Extreme protection has led to the establishment of inefficient units with high production costs and

substandard products thereby acting as severe handicaps for the growth of exports. The country is, thus, required to pay heavy price for industrialization via import substitution. Therefore, the policy of export promotion is called for. But “import substitution can be an effective instruments provided it can be done without creating over-protected, inefficient and high-cost industries . . . On the other hand, an economy which lays stress on export development is likely to create conditions favourable for efficient production, because sustained growth of exports, involving international competition, calls for greater cost and quality consciousness.”²⁰ For the purposes of discussion, let us divide the developing countries into two parts: (i) countries not suffering from acute population pressures; and (ii) overpopulated countries.

Countries in the first category should try to maintain and expand their traditional exports. They should make improvements in primary production by using more capital and better technology. They should replace such imports the production of which absorbs more labour relatively to capital. The process of import replacements should be gradual and in collaboration with foreign enterprises.

On the other hand, over-populated countries like India should concentrate on manufactured products both for home consumption and export. This is essential because the markets for traditional exports of India like tea, jute manufactures, and cotton textiles have become either stagnant or have been expanding very slowly. Expenditure elasticity of demand for commodities like tea being constant, their exports are not likely to expand. Commodities like jute manufactures are losing their foreign market due to the development of synthetic materials. Even the market for cotton textiles is shrinking because of the development of man-made fibres like terylene. Another reason is stiff competition among the developing countries because every new country starts with cotton textile industry. Keeping these factors in view, it is imperative for developing countries to promote the exports of those durable consumer goods which are in great demand in the developed countries. Such commodities are cars, scooters, tape-recorders, air-conditioners,

refrigerators, TVs, cameras etc. The classical example is of Japan, which has captured the Australian, New Zealand, American, and Canadian markets despite stiff competition from the domestic producers of these commodities. But the greatest handicaps in this field for developing countries like India are their high cost of production and low quality. So, for the purpose of developing the markets for such non-traditional items, developing economies should adopt export promotion measures enumerated the earlier pages.

[20](#). Pitambar Plant, "No Room for Complacency in Export Promotion," *Yojana*, May31, 1970.

But the export of non-traditional items to the developed countries are best with strong protective barriers which the developing countries will have to overcome. In this context, Harrod's advice merits consideration. He writes, "whatever the policies of the mature countries, developing countries should aim at expanding their output of exportable manufactures at prices so competitive as to be able to surmount the protective barriers of those countries."[21](#) The argument requires simultaneous establishment of intermediate goods and machinery industries which are dependent on the economies of scale. This refers to industrialization via import-substitution in an intensive manner. Thus a developing country like India should combine the export promotion policy with intensive import substitution to overcome balance of payments difficulties and accelerate the pace of development.

3. CONCLUSION

Regulation of foreign trade is the fundamental principal of commercial policy. For, without a strict regulation of its foreign trade, an under-developed country cannot proceed on the road to economic development. Protection then becomes a necessity in order to increase the rate of capital formation, promote industrialization, and remove balance of payments disequilibrium. Opinions, however, differ whether under-developed countries should

follow a restricted or a liberal trade policy. Myrdal is of the view that import restrictions in under-developed countries are simply a shift of import demands for some commodities to others and generally to goods needed for economic development. They do not imply a diminution of total imports. Their import restrictions and exports subsidies do not, therefore decrease total world trade. At another place he is more explicit when he says that the advice underdeveloped countries are now often gratuitously given to abstain from interfering with foreign trade is tantamount to giving up their development policy. A strict regulation of their foreign trade is a necessity but these regulations will not generally decrease world trade. He, further, believes that the under-developed countries have rational grounds for asking the developed countries to liberalise their trade unilaterally. They need to be staunch free traders, but preserve for themselves the right to give exports subsidies and restrict imports. And they have valid arguments against anyone who could call this attitude of theirs logically inconsistent.

Another view is held by Meier and Baldwin who argue that protective commercial policy will interfere with the optimum pattern of world trade and may lead to uneconomic productive practices and inhibit the flow of foreign capital. A liberal trade policy, on the other hand, can be a vital force in determining the rate at which a country develops. Thus an under-developed country foregoing the benefits of international trade may only be perpetuating its poverty.³³ This argument is based upon the presumption that the adoption of a policy of protection necessarily paves the way to autarchy. But a well-devised protective policy leads to the fuller utilization of idle resources so as to expand and diversify the economy, ultimately leading to the expansion of foreign trade.

[21.](#) R. Harrod, "Economic Development and Asian Regional Co-operation," *Pakistan Development Review*, Spring 1962.

If, however, an under-developed country were to choose between economic development and foreign trade, it will always choose the former. And commercial policy appears to be the easiest way to

accelerate economic development. As Nurkse has said, “When it is a matter of stimulating employment, shutting off imports is a very simple method. When the problem is to collect taxes for the government revenue, tariffs are not difficult to establish and have been very popular in the less developed countries. When protection is wanted for infant industries, restricting imports is again easier than raising funds with which to pay direct subsidies to the protected industries. Commercial policy is the line of least resistance in these cases, not the most effective or equitable line. Similarly, commercial policy is easier than keeping domestic consumer demand in check by measures of, say, fiscal policy, but it does not go to the root of the problem. It is perhaps the best that can be done; the root of the problem may be insoluble.

EXERCISES

1. Outline a commercial policy in the context of a developing economy.
2. What are the causes of an adverse balance of payments in an under-developed country. Suggest measures to solve this problem.
3. Do you favour a policy of import-substitution or export push for overcoming the balance of payments problem of a developing country. Give arguments in support of your answer.
4. Why do underdeveloped countries favour an outward-looking policy of export promotion? Give reasons in support of your answer.
5. Of the two trade policies of outward-looking and inward-looking which one would you prefer for a developing country.



FOREIGN AID IN ECONOMIC DEVELOPMENT

1. TYPES OF FOREIGN AID

Foreign aid (capital) enter a country in the form of private capital and/or public capital. Private foreign capital may take the form of direct and indirect investment.

Direct Investment means that the concerns of the investing country exercise *de facto* or *de jure* control over the assets created in the capital importing country by means of that investment. Direct investment may take many forms: the formation in the capital importing country of a subsidiary of a company of the investing country; the formation of a concern in which a company of the investing country has a majority holding; the formation in the capital importing country of a company financed exclusively by the present concern situated in the investing country; setting up a corporation in the investing country for the specific purpose of operating in the other concerns; or the creation of fixed assets in the other country by the nationals of the investing country. such companies or concerns are known as transnational corporations (TNCs) or multinational corporations (MNCs).

Indirect Investment better known as 'portfolio' or 'rentier' investment consists mainly of the holdings of transferable securities (issued or guaranteed by the government of the capital importing country), shares or debentures by the nationals of some other country. Such

holdings do not amount to a right to control the company. The shareholders are entitled to dividend only. In recent years, multilateral indirect investments have been evolved. The nationals of a country purchase the bonds of the World Bank floated for financing a particular project in some LDCs. *Public Foreign Capital* may consist of: (a) 'Bilateral hard loans' *i.e.*, giving of loans by the British Government in pounds sterling to the Indian Government; (b) 'Bilateral soft loans' *i.e.*, sale of foodgrains and other farm products to India by the United States under PL 480^{*}; (c) 'Multilateral loans' *i.e.*, contributions to the Aid India Club, the Colombo Plan, etc., by the member countries. Under this category are also included loans made available by the various agencies of the United Nations like IBRD, IFC, IDA, SUNFED, UNDP, etc¹; (d) Inter-governmental grants. *Foreign Aid* refers to public foreign capital on hard and soft terms, in cash or kind, and intergovernmental grants.

^{*} Under the US Agricultural Trade Development Assistance Act popularly known as Public Law 480, agricultural surpluses are sold for payment in local currency.

2. ROLE OF FOREIGN AID^{*} IN ECONOMIC DEVELOPMENT

Public foreign capital is more important for accelerating economic development than private foreign capital. The financial needs of LDCs are so great that private foreign investment can only partially solve the problem of financing. For one thing, it has nothing to do with social expenditures in such spheres as education, public health, medical programmes, technical training and research, etc. Such schemes though indirectly contributing to economic efficiency and productivity of the economy in the long-run yield no direct returns, and could, therefore, be financed with the help of grants received from advanced countries. Further, private foreign investment presupposes the existence of basic public services in LDCs. But investment in them requires large sums and risks which private capital is unable to undertake. So investment in low-yielding and slow-yielding projects could be possible only on the basis of foreign aid. Moreover, unlike private foreign investment, aid can be used by

the recipient country in accordance with its development programmes. Therefore, much cannot be expected of private foreign investment. There is, however, a growing international awareness that “poverty anywhere is a danger to prosperity everywhere and prosperity anywhere must be shared everywhere.” Developed countries consider it to be their moral duty to help their less fortunate brethren in underdeveloped countries. But this realization on the part of the developed countries has never been spontaneous. They have always been motivated by international policies in the context of the cold war. Their aim has been to give aid with “strings” attached. “It was only with the entry of the Soviet Union and other communist countries into the field that Western countries also began displaying some enthusiasm for offering aid to the under-developed countries at the governmental level *without strings*.”²

Foreign aid flows to the LDCs in the form of loans, assistance and outright grants from various governmental and international organizations. It is regarded indispensable for the development of LDCs. But there are some economists who dispute this view and hold that foreign aid is not indispensable for their development rather it obstructs it. We study the case for and against foreign aid.

CASE FOR FOREIGN AID

The following arguments are advanced for foreign aid in LDCs:

1. To Supplement Domestic Savings. LDCs are characterized as 'capital-poor' or 'low-saving and low-investing' economies. There is not only an extremely small capital stock but current rate of capital formation is also very low. On an average, gross investment is only 5 to 6 per cent of gross national income in these economies, whereas in advanced countries it is about 15 to 20 per cent. Such a low rate of savings is hardly enough to provide for a rapidly growing population at the rate of 2 to 2.5 per cent per annum, let alone invest in new capital projects. In fact, at the existing rate of savings, they can hardly cover depreciation of capital and even replace existing capital equipment. Efforts to mobilise domestic savings through taxation and public borrowings are barely sufficient to raise the

current rate of capital formation via investment. Rather, these measures lead to reduction in consumption standards, and unbearable hardships on the people. The importation of foreign capital helps reduce the shortage of domestic savings through the inflow of capital equipment and raw materials thereby raising the marginal rate of capital formation.

1. These abbreviations stand for : The International Bank for Reconstruction and Development (IBRD), International Finance Corporation (IFC), International Development Association (IDA), Special United Nations Fund for Economic Development (SUNFED), United Nations Development Programme (UNDP).

* This also relates to the Role of Foreign Capital in Economic Development.

2. V.K.R.V. Rao and Dharam Narain, *op. cit.*, p. 72. As a contrast, note what an American economist says in this respect. Prof. Kindleberger opines that the underdeveloped countries now have expectations of assistance in their development. The expectations have been aroused. The United States, at least, among the developed countries, is committed to some form of economic assistance to the development programmes of the so-called free world. No such expectations have been awakened in the Soviet Union (after 1946) or in Red China." *Ibid.*, pp. 298-99.

2. To Overcome Deficiency of Technological Backwardness.

Besides, low-saving and low-investment imply capital deficiency, and along with it, LDCs suffer from technological backwardness. Technological backwardness is reflected in high average cost of production and low productivity of labour and capital due to unskilled labour and obsolete capital equipment. Above all, it is reflected in high capital-output ratio. Foreign capital overcomes not only capital deficiency but also technology backwardness. It brings sufficient physical and financial capital along with technical know-how, skilled personnel, organizational experience, market information, advanced production techniques, innovations in products, etc. It also trains local labour in new skills. All this accelerates economic development.

3. To Overcome Deficiency of Overhead Capital.

LDCs woefully lack in economic overhead capital which directly facilitates more investment. The rails, roads, canals, and power projects provide the

necessary infrastructure for development. But since they require very large capital investment and have long gestation periods, such countries are unable to undertake them without foreign aid.

4. To Establish Basic and Key Industries. Similarly, LDCs are not in a position to start basic and key industries by themselves. It is again through foreign capital that they can establish steel, machine tools, heavy electricals, and chemical plants, etc. Moreover, the use of foreign capital in one industry may encourage local enterprise by reducing costs in other industries which may lead to chain expansion of other related industries. Thus foreign capital helps in industrializing the economy.

5. To Exploit New Areas and Natural Resources. Private enterprise in LDCs is reluctant to undertake risky ventures, like the exploitation of untapped natural resources and the exploitation of new areas. Foreign aid assumes all risks and losses that go with the pioneering stage. Thus it opens up inaccessible areas, taps new resources, and helps in augmenting the natural resources of the country, and removing regional imbalances.

6. To Obtain Social Benefits. As a corollary to what is indicated above, we may say that the creation of the country's infrastructure, the establishment of new industries, the tapping of new resources, the opening of new areas, all tend to increase employment opportunity within the economy. In other words, the importation of capital creates more employment in the urban sector. This leads to the migration of surplus labour from the rural to the urban sector. The pressure of population on land is reduced and disguised unemployment may disappear. This is the social gain from aid.

7. To Raise the Standard of Living. All this implies that foreign aid tends to raise the levels of national productivity, income and employment, which, in turn, lead to higher real wages for labour, lower prices for consumers and rise in their standard of living. When with the inflow of foreign capital, local labour becomes skilled, its marginal productivity is increased, thereby raising total real wages of labour. Secondly, when new industries are started by importing

superior know-how, management, machines and equipment, larger quantities of new and quality products are available to consumers at lower prices.

8. To Increase State Revenues. When private foreign investors invest in various industries in LDCs, they get profits and royalties. The government of the capital-receiving country levies taxes on such profits and royalties which increase their revenues.

9. To Reduce Inflationary Pressures. The appearance of inflationary pressures is inevitable in a developing country because of the existence of the disequilibrium between demand and supply of domestic products, following the initiation of a large public investment programme. The latter has the impact of rapidly increasing the demand for goods and services relative to their supplies. This leads to inflationary pressures which become strong due to the existence of structural rigidities that inhibit the expansion of food and other consumer goods. Foreign aid helps minimise such inflationary pressures when food and other essential consumer goods through foreign aid raises the levels of consumption which, in turn, enhance the productive efficiency of the community.

10. To Solve the Problem of Balance of Payments. Foreign aid overcomes the balance of payments difficulties experienced by an LDC in the process of development. To accelerate the rate of development it needs to import capital goods, components, raw materials, technical know-how, etc. Besides, its import requirement of foodgrains increase rapidly with population pressures. But its exports to developed countries are either stagnant or have a tendency to decline. The gap between imports and exports leads to the balance of payments difficulties. It is through foreign capital that an under-developed country can meet all its import requirements, and at the same time, avoid the balance of payments difficulties. Further, there is the need for additional foreign exchange for servicing external debt. This accentuates the balance of payments problems which can again be remedied by importing capital.

Conclusion. To conclude, the inflow of foreign capital is indispensable for accelerating economic development. It helps in industrialization, in building up economic overhead capital, and in creating larger employment opportunities. Foreign aid not only brings money and machines but also technical know-how. It opens up inaccessible areas and exploits untapped and new resources. Risks and losses in the pioneering stage also go with foreign capital. Further, it encourages local enterprise to collaborate with foreign experience. It obviates the balance of payments problem and minimises the inflationary pressures. Foreign aid helps in modernising society and strengthens both the private and public sectors. Foreign aid is thus indispensable for the economic development of LDCs.

CASE AGAINST FOREIGN AID

The following arguments are put forth against foreign aid in LDCs:

1. Foreign Aid is not a Necessary Condition for Development.

Prof. Bauer is one of the few Western economists who does not view foreign aid indispensable for the economic development of LDCs. To him, "Foreign aid is plainly neither a generally necessary nor a sufficient condition for emergence from poverty." It is not necessary for economic development because a number of new developed countries began as underdeveloped and developed without foreign aid. Moreover, many LDCs in the far East, South-East Asia, East and West Africa, and Latin America have advanced very rapidly over the last half century or so without foreign aid. Nor is foreign aid a sufficient condition for economic development if the population of a country is not interested in material development. "But if the main springs of development are present, material progress will occur even with foreign aid. It is, of course, true that a country receiving aid benefits in the sense of obtaining cheap or free capital.....but this in no sense make foreign aid indispensable for development."

2. Foreign Aid is Used for Wasteful Projects. Foreign aid is often used for extremely wasteful projects which make large losses year after year. They absorb more local resources of greater value than

their net output when the costs of administration, maintenance and replacement of fixed assets originally donated for the projects are taken into consideration.

3. Foreign Aid does not Increase Net Investment. Foreign aid does not always bring about an increase in net investment. As a matter of fact, all LDCs receiving foreign aid impose severe restrictions on the inflow and use of foreign capital. These retard the operation and expansion of private enterprise within the economy. Consequently, both foreign and domestic private enterprises are forced to work below capacity. Thus, foreign aid may reduce rather than increase net investment within the recipient country.

4. Foreign Aid does not Improve Income Earning Capacity. Foreign aid has failed to improve the income-earning capacity of LDCs and they are now saddled with large external public debts.

5. Arguments to Overcome Balance of Payments Difficulties and to Avoid Inflationary Pressures are not Correct. The case for foreign aid to overcome balance of payments difficulties and to avoid inflationary pressures is mis-conceived. Foreign aid encourages governments of LDCs to embark on ambitious plans involving large expenditures financed by inflationary monetary and fiscal policies and also to run down their foreign exchange reserves. But inflationary policies, balance of payments difficulties and extensive economic controls engender a widespread feeling of insecurity or even a crisis atmosphere. All these inhibit domestic savings and investment and even lead to a flight of capital. These, in turn, serve as arguments for further foreign aid.

6. Influences Policies towards Inappropriate Directions. Foreign aid frequently influences policies into inappropriate directions by promoting unsuitable external models, such as Western-type universities whose graduates cannot get jobs, Western-Style trade unions which are only vehicles for the self-advancement of politicians, and a Western pattern of industry even where it is quite inappropriate such as airlines and steel plants.

7. Finances Uneconomic Enterprises or Activities. It is contended that foreign aid helps in increasing food, raw materials for exports and producing import substitutes. But the experience of many LDCs has been that much aid directly or indirectly finances uneconomic enterprises or activities which produce neither food nor raw materials for exports nor import substitutes.

8. Foreign Aid Politicises Public Life. Foreign aid often politicises public life in LDCs and thereby contributes to social and political tensions which ultimately retard material progress. It is on the basis of political pressures that many recipient governments in LDCs restrict the activities of highly productive and economically successful minorities such as Chinese in Indonesia, Asians in Africa, Indians in Burma, Europeans everywhere. Many maltreat and persecute politically ineffective minority groups, especially ethnic minorities. Such policies reduce current and prospective savings, investment and income in such LDCs.

9. Foreign Aid leads to Dependency. Foreign aid leads to dependency because the donors insist on aid-tying to the purchase of goods and services at costs much higher than the competitive world prices, and on monetary and fiscal policies detrimental to the national interests of the recipients of aid. For instance, the recipient may be required to keep an overvalued exchange rate, low real interest rates and to neglect export promotion and fiscal restraint.

10. Reduction in Domestic Savings. Griffin and Enos³ have concluded on the basis of statistical evidence for thirty-two LDCs that only 25 per cent of foreign aid results in an increase of imports and investment, while 75 per cent is used for consumption. Thus aid causes a reduction in domestic savings. It is used as a substitute for domestic savings rather than as a supplement. Critics, however, doubt the validity of this statistical study because of statistical problems relating to sampling, too short a time period involved, non-availability of savings data in LDCs, etc. Moreover, a number of exogenous factors like wars, weather, terms of trade, etc., and

endogenous factors such as economic and political difficulties cause high inflow of aid and low-savings rates.

[3.](#) K.B. Griffin and J.L. Enos "Foreign Assistance : Objectives and Consequences," *Economic Development and Cultural Change*, April 1970.

It is, therefore, not possible to generalise the impact of foreign aid. Empirical evidence has shown that in some countries, aid stimulates savings so that each dollar of inflow results in more than one dollar of investment, while in some other countries they discourage savings and a dollar of aid inflow leads to much less than a dollar of investment.[4](#)

3. TIED VS. UNTIED AID

Distinction is often made between tied and untied aid. Aid may be tied by source, project and commodities, or it may be tied both by project and source, and become double tying aid. Untied aid is 'general-purpose aid' and is also known as programme aid or non-project aid. We discuss them in the light of Indian experience.

Tied Aid. Aid-tying by *source* is followed by the US Government in giving assistance under PL 480 and Exim Bank loans, and by Britain and Federal Republic of Germany. The US aid programme requires the recipients to spend the aid on US goods and services. All credits are automatically linked to US exports. Any departure from this tying by source means discontinuance of aid. Another method is to treat the aid-flow as part of an over-all trade arrangement, as is done by the Socialist countries. Still another method is to finance only those commodities and/ or projects where the donor country possesses a decided advantage in tendering the specified items. This practice is followed by the Federal Republic of Germany.[5](#)

It has been estimated that aid-tying by source tends to push up the cost of the projects by more than 30 per cent to recipient country. Double-tying increases the cost of aid procurement still further. This

is obvious from the fact that the aid receiving country is required to pay more than the competitive world market price for its requirements to the donor country. It increases further when as in the case of American supplies, the recipient country is forced to get machinery, spare parts, raw materials, etc., in the ships of the donor country. This tends to reduce the real value of aid. Besides, aid-tying by source distorts the recipient country's allocation of investment resources. The development programme becomes biased towards these projects that have a high component of the special import content allowed for under the conditions of tied aid. Aid-tying by source also limits the choice of technology used in investment projects and may force the recipient country to adopt a highly capital-intensive technique or project which may be inappropriate to a labour surplus economy.

Project aid has been defined “as assistance whose disbursement is tied to capital investment in a separable productive activity.”⁶ The entire Soviet aid to India has been of this nature.

Its Merits. The project approach to aid has a number of advantages both from the donor's and the recipient's viewpoints : (i) direct control by the recipient over the selection of projects in *certain circumstances*; (ii) greater opportunity of influencing, in both their design and implementation, those projects normally financed by donor; (iii) increased case of influencing the recipient's policies in those sectors of the recipient's economy for which project aid has been made available; (iv) incentive for improving the quantity quality of projects; (v) better opportunities for publishing the donor's aid programme; (vi) increased access to information on sectors of the recipient's economy in which projects are financed; and (vii) less adverse effect on the balance of payments of the donor when project aid is combined with source-tying.⁶

4. Guster Papanek, “The Effect of Aid and other Resources Transfers on Savings and Growth in Less Developed Countries,” *F.J.*, September 1972.

[5.](#) Bhagwati, 'The Tying of Aid' in *Foreign Aid*, (eds.) J. Bhagwati and R.S. Eckaus.

[6.](#) Alan Carline, "Project versus Programme Aid from the Donor's Viewpoint", *Economic Journal*, March 1967.

Its Demerits. Project aid has, however, *certain disadvantages*: (i) Project aid may not be useful to the recipient country, if there is a squeeze on maintenance imports. (ii) Any attempt to exercise micro or project influence by the donor country will make such aid less attractive to the recipient. (iii) Project aid leads to inter-governmental bureaucratic frictions created by detailed supervision of project formulation and execution. (iv) Aid tied to specific projects also tends to distort the investment priorities of the recipient country which may have to postpone other equally important projects. (v) often, excessive aid tying to particular machinery, equipment, etc., leads to under-utilization of domestic resources like labour, because it creates a bias towards import-intensive projects.⁷ (vi) Like aid-tying by source, project aid increases the real costs of loans to the recipient country when she has to buy machinery, and spares from the aid-giving country at a high price. According to Jagdish Bhagwati, it amounts to one-fifth of the total tied aid and in specific cases price differentials amounts to 100 per cent or even more.

Untied Aid. Untied or *programme* aid has been defined by Carlin as that "assistance whose disbursement is tied to the recipient's expenditures on a wide variety of items justified in terms of the total needs and development plan of the country rather than any particular project." India receives non-project aid from the UK, and the Federal Republic of Germany in the form of balance of payments assistance, debt relief assistance and for the import for raw materials, components and spares.

Its Merits. Untied aid has the following merits : (i) It is preferred to tied aid by developing countries because they are free to utilize aid in accordance with their development programmes— in agriculture, industry, transport, and/or in any other infrastructure. (ii) Programme aid also reduces the real costs of aid as the recipient can buy its

requirements at competitive rates from the world markets and there are no inter-bureaucratic frictions as under tied aid. (ii) The recipient country can use an appropriate technology in keeping with its factor endowments and allocate its resources in a much better way than under tied aid. (iv) According to Singer, 'Plan aid seems to be more popular among the receiving countries than project aid. This would be expected to be considered as an advantage of plan aid, since it may spur the receiving country to greater efforts in order to get the aid, apart from smoothing relations between the aid-giver and the receiver, which is presumably also an objective of aid . . . It may be said that aid tied to specific projects is an inducement for receiving countries to think of development in terms of concrete projects. . . Development is, of course, much more than that, and in fact many expenditures classified as current or as consumption are much more developmental than expenditures classified as "projects" or capital expenditure. From this latter point of view, plan aid, and even more annual budget aid, is clearly preferable if the donor agrees with the recipient on developmental policies and priorities."⁸

4. FACTORS DETERMINING THE AMOUNT OF FOREIGN AID FOR ECONOMIC DEVELOPMENT

The amount of foreign aid flowing to LDCs, however, depends upon a number of factors:

1. Availability of Funds. Developed countries should have enough surplus capital to export. These does not appear to be a plethora of surplus in such countries. With the exception of the United States, there are very few countries that can spare so much capital as to bring it upto 1015 billion dollars annually, required by LDCs. Some of the developed countries like Canada and Australia themselves borrow from the United States and Great Britain to finance their development projects. However, a genuine effort on the part of rich countries to mop up surplus capital can meet the requirements of LDCs.

[7.](#) IMD, Little and J.M. Clifford, *International Aid*, 1985.

[8.](#) H.W. Singer, "External Aid : For Plans or Projects", *Economic Journal*, September, 1965.

2. Capacity to Absorb Capital. LDCs should get as much as they could usually invest. Absorptive capacity covers all the ways in which the ability to plan and execute development projects, to change the structure of the economy, and to reallocate resources is circumscribed by lack of crucial factors, by institutional problems or by unsuitable organization. The structure of the economy along with the utilization of its existing capacity will have an important bearing on a country's absorptive capacity.⁹ The International Bank for Reconstruction and Development stated in its Fourth Annual Report : "The principal limitation upon Bank financing in the development field has not been lack of money but lack of well-prepared and well-planned projects ready for immediate execution. The projects must not only be built, to be "absorbed", they must be productive." The amount of capital that can be utilized by an LDC is determined by the availability of complementary resources. It will remain unutilized if complementary resources are not available. Inadequacy of overhead facilities like power, transport, etc., in LDCs keep the capacity to absorb foreign aid low. The other factors which keep the absorptive capacity for productive investment low are the lack of efficient entrepreneurship, administrative and institutional bottlenecks, the lack of trained personnel, the lack of geographic and occupational mobility, and the small size of the domestic market. These handicaps keep the marginal productivity of capital low in LDCs and prevent the proper use of foreign aid for the execution and completion of development projects. once these obstacles are overcome the absorptive capacity increases, the economy would complete the projects well in time and the pace of development would be accelerated. In order to increase their absorptive capacity. LDCs should, therefore, undertake appropriate and adequate pre-investment projects. In this, they can take advantage of the help being extended by such international agencies as the UN Special Fund. Above all, 'for an effective use of foreign aid, it should increasingly be linked with programmes rather than projects. This

would eliminate delay in the utilization of authorized aid and increase the tempo as well as magnitude of utilization.”¹⁰ Higgins lists the following factors as evidence of the absorptive capacity of a country; unutilized capacity of some kind; opportunities for improvements in technology : a well-construed development plan : some domestic financial resources; public and business administrators capable of executing projects expeditiously and efficiently; a strong and united government having the support of the masses; a fluid and flexible society already undergoing cultural change and willing to shift from agricultural to industrial occupations; a high level of literacy and an effective system of education; and a technology-minded and development-minded public.¹¹ Given these factors the capacity to absorb resources for productive investment is high.

3. Availability of Resources. If an LDC has little adequately developed human and natural resources it will act as an impediment to the effective use of foreign capital. It will be all the more difficult for such a country to utilize the available foreign aid if it lacks in human and natural resources. But the latter should not act as limits to economic development.

4. Capacity of the Recipient Country to Repay Loans. This is a very pertinent problem. For the burden of servicing loans acts as a barrier to the borrowing of large funds by LDCs. This, in itself, can be attributed to their extreme poverty. The capacity for repayment, however, hinges on their capacity to export and their ability to augment their foreign exchange resources. V.K.R.V. Rao and Dharam Narain point out that, in the short run, the capacity to repay is dictated by the foreign exchange impact or investment undertaken, whether it be export-increasing or import-decreasing. “overtime, the only determinant of the capacity to repay is the loan's contribution to productivity of the economy as a whole, and the capacities of the system to skin off the necessary portion of that productivity in taxes or pricing, and reallocate resources so as to transfer debt service abroad. The requirement for payment is that the fiscal system raise the necessary funds, and the *transformation occur* to shift resources into export-increasing or import-decreasing lines.”¹² If loans flow in a

steady and increasing stream and for very long periods with liberal terms of repayment, the problem of repayment is easy. For, in a very long period, the borrowing countries would have raised their outputs to such an extent as to permit net repayment. But prudence demands that loans should be tied to self-liquidating works, while grant should be made available for specific social overheads, such as research, education, public health, and community development.

[9.](#) J.H. Adler, *Absorptive Capacity : The Concept and Its Determinants*, 1985.

[10.](#) V.K.R.V. Rao and Dharam Narain, *op. cit.*

[11.](#) *Op. cit.*, pp. 609-20.

5. The Will and Effort to Develop. Perhaps the most important factor is the will and the effort on the part of the recipient country to develop. Capital received from abroad does not fructify, unless it is desired and paralleled by an effort on the part of the recipient country. As Nurkse aptly said, "Capital is made at home." The role of foreign capital is to act as an effective agent for the mobilization of a country's will.

5. AID OR TRADE

of late, the idea has been gaining ground among the LDCs that trade and not aid is essential for their rapid development. It is contended that the developed countries have failed to meet the aid requirements of the developing economies during the development decades of the 1970s and 1980s. A UNCTAD resolution adopted by a large majority of the developed countries had, in a way, made it obligatory on them to annually contribute to LDCs at least one per cent of their national income *net* after deducting withdrawals of external capital including amortisation and repayment. But they failed to contribute even 0.5 per cent of their national income. This has been especially disheartening when the capacity to absorb more aid has been expanding on the part of the developing nations and their

economic performance through aid has also improved much. Gerald M. Meier has aptly observed that, 'the flow of foreign capital from developed countries to LDCs has levelled off, and the external debt servicing problem has intensified; the import surplus supported by foreign capital has, therefore, fallen markedly in recent years, and the net transfer of resources beyond imports based on exports has become relatively insignificant for the majority of LDCs. To the extent this foreign exchange constraint is not removed, an LDC cannot fulfil the import requirements of its development programme. LDC must then undertake policies that will do one or a combination of the following : reduce the country's rate of development, replace imports, expand exports, improve the country's terms of trade, induce a larger inflow of foreign aid.¹³

A larger inflow of foreign aid is neither feasible nor desirable for LDCs. Foreign aid has undoubtedly provided crucial support to the development plans of such countries, but the developed countries are not prepared to supply aid to the extent required by the less developed. on the other hand, LDCs are not anxious to have tied aid at the strict conditions laid down by the donors.¹⁴ Prior to the meeting of UNCTAD I in 1964, the policy of import substitution was much favoured by LDCs but it failed to solve their problems. Since then, the various UNCTAD conferences have stressed the *outward-looking policies* of export promotion and improvement in the terms of trade for LDCs. The UNCTAD has been pleading for preferential tariffs for the manufactured and semi-manufactured exports of LDCs and UNCTAD III succeeded in evolving the Generalised Systems of Preferences (GSP) whereby concessions have been extended to the products of the 88 LDCs to penetrate the markets of OECD (Organization for Economic Co-operation and Development) nations.¹⁵

^{12.} R. Nurkse, *op. cit.*

^{13.} G.M. Meier, *Leading Issues in Economic Development*, 2nd edn., 1970.

^{14.} Refer to the previous section for demerits of tied aid.

So India and other developing countries should make tremendous efforts to boost their exports so that in a decade or so they have a trade surplus. Expansion of exports is also essential to pay for the increasing imports. Larger exports are further needed for debt service payments. But a policy that favours trade and not aid can be successful only if there is an increase in domestic savings equal to the rise in export earnings. Trade will substitute for aid when larger export earnings raise national income and this leads to increased savings. In fact, greater trade opportunities are like greater aid flows. Trade helps in transferring real resources for investment when the LDCs are able to charge higher prices for their exports from the developed countries under preferential trading agreements. Developing countries at a high level of development like India, Brazil, etc., are able to utilize their export earnings for further capital formation but no developed country would be prepared to buy at prices higher than the world market. So the need is to stabilise the price level in developing economies and then trade can substitute aid admirably. However, countries that are in the early phase of development should not think of substituting trade for aid because they can only develop their trade through aid over the long run. Although greater trade possibilities for such countries have some resource element in them, they are more complementary to aid flows than substitutable for them. Development requires both trade and aid.

EXERCISES

1. Do you prefer foreign aid or foreign trade for the economic development of a backward country?
2. Examine the short term and long term effects of the flow of foreign capital into a country.
3. Discuss the role of foreign aid in the economic development of a country. What determines the amount of foreign aid in such a country?

15. It was formed on 14 December, 1970 by developed countries at Paris and includes all European countries, US, Canada and Japan.



EXPORT AND INTERNATIONAL COMMODITY AGREEMENTS

1. INTRODUCTION

This chapter discusses, in detail, the interconnected problems of export instability and international commodity agreements (ICAs). The problem of instability of export earnings of LDCs has been discussed since the 1950s at international forums and international commodity agreements have been proposed as the most important remedy to solve it.

2. EXPORT INSTABILITY PROBLEM

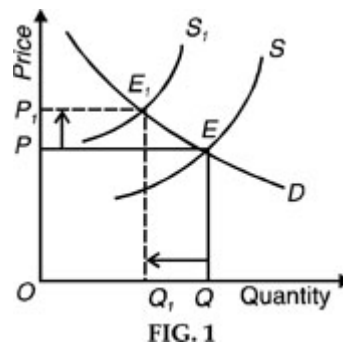
The problem of export instability refers to the short-run instability of markets for primary products as reflected in wide year-to-year fluctuations in prices, volume of exports and export earnings of LDCs. Prof. MacBean¹ defines export instability as short-term fluctuations in exports earnings.

LDCs highly concentrate on exporting a few primary products which account for 80 to 90 per cent of their export earnings. But due to short-run wide fluctuations in volumes and prices of primary products, there is instability in their export earnings.

CAUSES OF EXPORT INSTABILITY

The main causes of export instability in prices and quantities of primary products and in export earnings of LDCs result from the unforeseen supply and demand factors on the one side and inelasticities of supply and demand on the other. We discuss them along with some other factors.

1. Supply Side. The short-run supply of primary products is inelastic and subject to erratic changes due to such natural forces as drought, floods, crop diseases, insects and other pests. These destroy crops, reduce their supplies and export quantities, but raises their prices. on the other hand, good weather and timely rains produce a bumper crop, raise export quantities,



but bring a fall in world prices. Moreover, in the case of such long-gestation tree crops as rubber, coffee and cocoa, there are strong “cobweb” instabilities due to lagged supply responses. If the planting of such crops is done today in response to their favourable world prices, prices may fall when their supplies arrive in the world market after five years. Besides, strikes and political factors or war also play important roles in restricting supplies of products. Yotopoulos and Nugent in their empirical study found that such destabilising factors are reflected in the instability of export prices, relative domestic prices of primary products. But, according to MacBean's findings, export instability in LDCs arises more from quantity fluctuations than from changes in prices. The effect of unstable export supply on export earnings is shown in Fig. 1. where D and S are the initial demand and supply curves respectively for some agricultural product whose price is OP and quantity sold is OQ . When its supply falls from OQ to OQ_1 , due to say a drought, the S curve shifts to the left as S_1 . Given the demand, the new equilibrium is set at E_1 . Consequently, the price rises from OP to OP_1 and the export earnings of the country fall from $(OP \times OQ)$ to $(OP_1 \times OQ_1)$.

1. A.I. MacBean, *Export Instability and Economic Development*, 1966. He is the first economist to make an empirical analysis of this problem.

2. Demand Side. In the postwar period and the 1980s, export instability of LDCs has been more often caused by changes in demand than by changes in supply. The reason is that very few crops are grown mostly in one country. It is not possible that a particular crop being grown in a number of countries will be affected by a disease or drought simultaneously in all countries. Thus the effect of a change in the supply of that crop in one country will affect its world market price. On the other hand, the demand for primary products in world markets is sluggish and has low price elasticity. A fall in their demand causes a large drop in export earnings. The fall in demand may be due to a recession in developed countries which may lead to falling world prices of primary products of LDCs. Moreover, changes in the prices of competing products, including substitutes, affect the world demand for primary products. But in the case of minerals, export instability arises from cyclical swings in demand and speculation in world markets. Moreover, restrictions on imports of some food products by developed countries also adversely affect the demand for exports of LDCs and hence their export earnings. The effect of an unstable export demand on export earnings is shown in Fig. 2 where the initial equilibrium price is OP and quantity sold is OQ . When its demand falls in the world market from OQ to OQ_1 , the demand curve shifts downward to D_1 . Given its supply, the new equilibrium is at E_1 . The price falls to Op_1 and the quantity demanded to OQ_1 . The export earnings of the country fall from $(OP \times OQ)$ to $(Op_1 \times OQ_1)$. Note that the fall in export earnings is greater than either the supply or price.

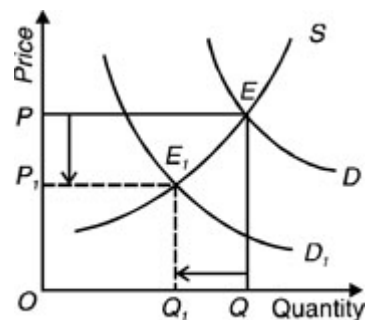


FIG. 2

3. Commodity Concentration. Another cause of export instability is the dependence or concentration of an LDC upon one or two primary products for exports. In other words, the lack of diversification in primary products makes LDCs highly vulnerable to export quantity or price instability.

4. Geographical Concentration. The export instability is influenced by the geographical destination of the exports of an LDC. An LDC which is dependent upon a single geographical market for the export of its primary products is more vulnerable to export instability than a country exporting to different geographical areas.

5. Export Market Share. The export instability is also caused by the export market share of an LDC. A country whose export market share is large relative to its domestic market may have uncertainty and instability in its export prices and earnings.

6. Primary Goods Share. Another cause of instability in export earnings is the proportion of primary products in total exports of an LDC. If the share of primary products in total exports of the country is large, fluctuations in their supply, demand and prices will lead to fluctuations in their export earnings.

EFFECTS OF EXPORT INSTABILITY

Empirical studies of the effects of export instability on LDCs have led to divergent views among the economists.

The common and traditional view is that fluctuations in export earnings are transmitted to the domestic economy. The uncertainty or instability of export earnings makes domestic demand unstable and reduces the incentive to allocate resources in the export sector. Instability in export earnings also makes access to imported materials and this increase the risks of investors and producers. Consequently, export instability discourages investment and lowers the growth rate of the economy.

But MacBean's empirical study of 1966 reveals that investment and growth have not been discouraged by export instability of LDCs. Rather they have been stimulated by it. The lower propensities to consume when measured under higher levels of instability have led to increased aggregate savings. These, in turn, have resulted in increased aggregate investment.

MacBean's study further reveals that "there is no evidence of association between the magnitude of fluctuations in income and of fluctuations in exports". This means that fluctuations in export earnings do not cause corresponding fluctuations in the national income of an exporting country. According to him, "Countries with relatively stable incomes have had very instable exports and vice versa".

On the other hand, the study by Adams and Behoman points to a negligible effect of export instability on economic growth.

Knudsen and Parnes in their study seem to support the findings of MacBean. But they take the permanent income hypothesis to explain the effects of fluctuations in export earnings on economic growth. Income earners in an LDC depend on some level of relatively permanent income and try to maintain their consumption patterns based on that. But people tend to save more of the uncertain and fluctuating component of export income. The more their unstable export income is, the larger fraction they will save and invest. Thus the greater the export instability, the more will be tendency to save and invest by the people which will lead to economic growth.

Further, the instability in the prices of primary products relative to industrial products reduce the income of LDCs. Thirlwall and Bergevin found in their study that for every 1 per cent rise or fall in the prices of industrial products, prices of primary products have fluctuated by 2.4 per cent since 1960. This change in prices leads to instability in export earnings and BOP problem in LDCs which adversely affect investment and income in them. *Second*, when the prices of primary products fall, they reduce the demand for industrial products. But their prices are sticky downward. It leads to stagflation. On the other hand, when the prices of primary products rise, the prices of industrial products quickly follow them and there is inflation. But when the government tries to control inflation by reducing demand there is again stagflation. on both counts, investment income are adversely affected.

REMEDIAL MEASURES TO REMOVE EXPORT INSTABILITY

On the basis of the causal factors for export instability in selected LDCs, MacBean in his study found that “export instability” seems to stem more from quantity fluctuations than from changes in price. This suggests that policies which aim at price stabilisation may remove relatively little of the export instability and in some cases may even increase fluctuations in total *earnings*.” If instability comes from the supply side, price stabilisation will not stabilise export earnings. It will reduce them during scarcity and raise them when there is a boom. However, economists do not agree fully with MacBean and also suggest other domestic and international measures to stabilise prices of primary products in order to remove fluctuations in export earnings of LDCs. We discuss them as under.

1. DOMESTIC MEASURES

Such domestic measures as tax, fiscal and monetary policies by the government of an LDC can help in removing fluctuations in export earnings. They may take the form of graduated taxes on exports based on export prices and graduated income taxes in periods of boom. The government will also earn from increased foreign exchange earnings. The central bank can follow a tight monetary policy. On the other hand, when there is recession, the government can counteract it by reducing income taxes and spending more to boost investment. The central bank can follow an easy monetary policy. During the boom, the aim of these policies is to increase investment or consumption expenditure in order to boost exports. But the impact of increased government expenditure during the recession will be more on the other sectors of the economy so as to raise the overall level of investment and income within the economy.

Another important measure to remove fluctuations in export prices and incomes is to set up Marketing Boards in LDCs. Such boards absorb the impact of price fluctuations in exports. By taking over the export trade in primary commodities, they help in holding their prices stable. When there are good crops, they do not allow prices to fall much by purchasing large quantities of commodities. On the other hand, during crop failures, they release stocks of commodities in the

market and, thus, prevent prices from rising much. Thus they play an important role in stabilising commodity prices and incomes of producers, traders and exporters. They also bring revenue to the government on their operations of buying and selling commodities.

3. INTERNATIONAL COMMODITY AGREEMENTS (ICAs)

The exporting countries of primary products join together to form international commodity agreements (ICAs) primarily to stabilise their export earnings by stabilising the prices of their products. They argue that the price mechanism does not operate efficiently in world markets for their products. There is imbalance between demand and supply in primary products which gives rise to wide fluctuations in their prices. The production of primary products has a long gestation period and it is difficult to adjust their supply to short-run fluctuations in demand. This causes disproportionately large changes in their prices. This requires some intervention in the free world markets to stabilise their prices. The ICAs perform this function. They protect the exporting countries of primary products against excessive competition and overproduction of such commodities in the world. Their excessive supply brings down their prices and thus lowers the export earnings of countries. ICAs not only bring stability in world prices of primary products but also guarantee exporting countries a relatively large and fixed share of world export earnings.

OBJECTIVES OF ICAs

The ICAs have two main objectives : (1) to prevent or reduce undue fluctuations of prices and quantities traded in world markets; and (2) to raise or maintain the long-term trend of prices for facilitating adjustments between production and consumption. The aim in both the cases is the desirability of securing long-term equilibrium between the forces of supply and demand.

Types of ICAs and International Price Stabilisation Schemes

The ICAs have been usually of the following forms :

BUFFER STOCK AGREEMENTS

1. THE INTEGRATED PROGRAMME FOR COMMODITIES (IPC)

At UNCTAD IV (Nairobi), in 1976 it was proposed to have an Integrated Programme for Commodities (IPC), and to create a common fund for buffer-stock financing. The proposal was to negotiate international commodity agreements to stabilise the prices of 18 commodities, ten of which were to be included in the initial buffer stock scheme. This programme led to the international commodity agreements on only cocoa (1981) and rubber (1980). UNCTAD VI (Belgrade) in 1983. It also emphasised the importance of negotiating ICAs for ten commodities. Of the five agreements on commodities—coffee, cocoa, sugar, tin and rubber—only that for rubber is still in operation.

The UNCTAD IV proposed a \$6 billion Common Fund in 1976 to create and finance international buffer stocks of ten storable commodities. It was at UNCTAD VII (Geneva) that a Common Fund for commodities under the IPC became operational after a number of countries ratified it or expressed their intentions to do so. New pledges announced at UNCTAD VII raised its total pledged capital to 66.9 per cent of the \$ 4.7 billion fund, allowing it to become operational. We study below the operation of international buffer stock agreements.

The international buffer stock agreement involves the establishment of buffer stocks of a commodity in order to stabilise its world price. Whenever its world price falls below a certain minimum, the buffer stock agency buys the stock of commodity from the open world market in order to check the fall in price. on the other hand, whenever the price rises above a certain agreed maximum price, it will sell the commodity in order to check a further rise in price.

The operation of an international buffer stock requires two types of stocks : *first*, adequate stocks of the commodity; and *second*, the provision of adequate finance. The operation of an international buffer stock is illustrated in Fig. 3 where the horizontal axis

measures the quantity and the vertical axis the price of the commodity. D and S are initial demand and supply and E is the equilibrium point and OP_B is the price and OQ the quantity of stock to be maintained by the buffer stock management agency. The supply curve of the commodity is assumed to be stable. Suppose the demand for the commodity falls to D_1 . To

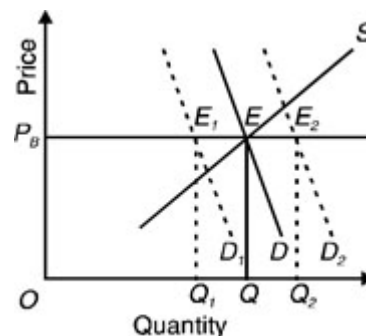


FIG. 3

To prevent a fall in the world price of the commodity, and maintain OP_B price, QQ_1 will be bought for the buffer stock. On the other hand, if the demand rises to D_2 , QQ_2 quantity of the commodity will be released out of the buffer stock in order to prevent a rise in price and to maintain the OP_B price. Thus any fall or rise in the demand for the commodity is equally matched by the purchase or sale of the commodity from the buffer stock so that the price remains stable at the agreed level of the ICA.

The above is a theoretical explanation as to how a buffer stock operates. In practice, the buffer stock agency sets the “floor” or minimum price and the “ceiling” or maximum price of the commodity. In the former case, if it finds that the price is likely to fall below the minimum, it buys the commodity out of its buffer stock. On the other hand, if the price is likely to rise above the maximum level, it will sell the commodity from the buffer stock. These operations reduce commodity price fluctuations.

Merits. The following merits follow from international buffer stocks agreements by stabilising prices : (1) They reduce risks to producers and consumers of the commodities. (2) They reduce uncertainties and instability in export earnings. (3) They reduce wide fluctuations in the incomes of producers. (4) They increase government revenues of producing countries. (5) They increase national income, investment and economic growth.

Problems. The international buffer stock agreements usually face the following problems.

1. Maintaining adequate quantities of both the commodity and money involve certain costs. The main problem is of sharing the expenses by member governments on space, labour, insurance, etc. for storing the commodity.

2. There is the problem of correctly guessing the prospective movement of the long-term trend world price of the commodity which maintains a balance between demand and supply. If the trend of commodity price is very high, the buffer stocks will be exhausted very soon. This will lead to further rise in the price. If, on the other hand, the buffer stock agency fails to anticipate correctly the downward trend in commodity price, there will be large stocks which will bring down the price further and bring loss to the partners of the agreement.

3. Such agreements are possible for non-perishable commodities which can be easily stored. The International Tin Agreement was an example of the buffer stock agreement for price stabilisation. It operated for five years from July 1956 and was renewed in subsequent years. But it failed in 1985 when its resources were inadequate to stop the fall in tin world prices. The manager of the buffer stock spent all his cash resources in the purchase of tin without succeeding in stabilising its price.

4. So far as the problem of gain from price stabilisation between buyers and sellers of the commodity is concerned, both experience a net gain from successful price stabilisation provided the buffer stock manager keeps the price at its long-run equilibrium trend. But the experience of the International Tin Agreement does not prove it. However, the distribution of respective gains to buyers and sellers is a tricky and complicated manner depending on whether the price instability is on the demand side or the supply side of the world market for the commodity.

2. EXPORT RESTRICTION AGREEMENT

The export restriction agreement is meant to stabilise export earnings by fixing quotas by members for the production and export

of a commodity whose price is falling. The aim is to maintain or increase export earnings by adjusting the total quantity of the commodity to the world demand. The operation of this agreement is illustrated in Fig. 4. Where the horizontal axis measures the quantity sold and the vertical axis price. D and S are the initial demand and supply curves which are in equilibrium at point E with OP price and OQ

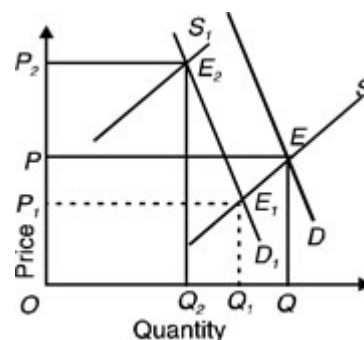


FIG. 4

quantity sold. The initial export earnings are the area $OQEP$. If there is a fall in demand, it will shift the D curve to D_1 . As a result, the price will fall to OP_1 . Given the supply represented by the S curve, the export earnings would decline to $OQ_1E_1P_1$. However, an export restriction agreement would require reduction in supply by fixing smaller quotas by members. This is shown in the figure by the S_1 curve which cuts the D_1 curve at E_2 . The quantity exported has been decreased to OQ_2 from OQ . The price has increased from OP to OP_2 and the export earnings have been maintained at the original level $OQEP = OQ_2E_2P_2$.

Its Limitations. Theoretically, this type of agreement appears to solve the problem of export instability prices. But in practice it has the following limitations:

1. The success of an export restriction agreement depends upon a number of conditions : (a) the extent to which it is able to bring actual and potential sources of export; (b) the extent to which substitutes of the commodity exists; (c) the share of the commodity in international trade in relation to its world production and consumption; and (d) the control and regulation over the production of the commodity by individual producers and exporters of member countries. But it is not possible for member countries to follow these conditions.
2. It is not possible for the demand to be inelastic in the long-run. Such a situation may lead to reduction by restricting the supply of the commodity.

3. Restricting the export of the commodity may give rise to substitutes of the commodity in the long-run. As a result, its exports will be reduced and earnings will fall.

4. There is also the danger that strict quota provisions along with control and regulation of production of the commodity may adversely affect the growth of the industry. High cost producers may be protected who may start producing sub-standard quality of the product.

5. Such an agreement can lead to malallocation of resources arising from arbitrary allocation of quotas among member countries and production quotas among producers within individual country.

Conclusion. For the success of such agreements, quotas within countries and among countries should be set realistically. There should be sufficient flexibility in their allocation. Efforts should be made to encourage coordination of production and price policies in the primary exporting countries.

3. MULTILATERAL CONTRACT AGREEMENT

The multilateral contract agreement involves both importers and exporters to buy and sell certain quantities of the commodity. The exporting countries are obliged to sell a certain specified quantity of the commodity at a stipulated maximum price. On the other hand, the importing countries are obliged to buy a certain specified quantity at a stipulated minimum price. These sales and purchases are made whenever the free market price reaches or exceeds the limits. Such a contract agreement is successful only if it covers a large proportion of the total trade of the members and the spread of maximum and minimum price is not too wide. Such an agreement provides security to both the producing and consuming countries from the bad effects of fluctuations in the world price of the product. The International Wheat Agreement of 1949 which has been renewed with modifications four times is a multilateral contract agreement.

4. PRICE COMPENSATION AGREEMENT

Price compensation agreements are bilateral arrangements over primary commodities between developed countries and LDCs. The exporting and importing countries agree upon a market normal price for the commodity. If the actual price of the commodity falls below the normal price, the importing developed country would compensate the exporting LDC for the loss in its export earnings when the demand for the commodity

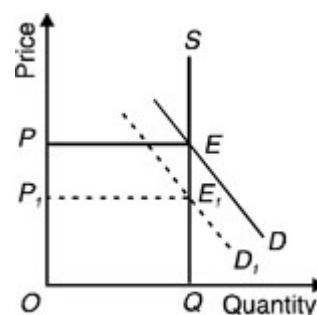


FIG. 5

falls in the former. This is illustrated in Fig. 5 where the market supply curve is QS and the demand curve is D . Both intersect at point E and the equilibrium price is OP . This is the agreed normal price between the two countries. The export earnings of the LDC are $OQEP$. Suppose the demand for the commodity falls in the developed country which brings a fall in the price of the commodity. This is shown by the shift in the demand curve D to D_1 . The new equilibrium is at point E_1 and the price falls to OP_1 . Consequently, the export earnings of the LDC fall from $OQEP$ to OQE_1P_1 . Since OP is the agreed normal price under the price compensation agreement, the developed country will compensate the LDC by the amount equal to the area P_1E_1EP .

This type of agreement is highly beneficial for LDCs and can run side by side with other types of ICAs. But the problem arises if the price of a commodity continues to decline. In such a situation, it is difficult to decide about the amount of price compensation to be paid to the exporting country. So a lower limit has to be set up to which the LDC would be compensated for the loss in export earnings. Further, the normal market price agreed upon will have to be revised depending upon changes in demand and supply conditions of the commodity in world market.

5. COMPENSATORY FINANCE SCHEMES

To compensate for the unexpected and severe fall in export earnings of LDCs due to price and supply variations of their primary products, there are two compensatory finance schemes. The *first* is the

Compensatory Financing Facility (CFF) of the IMF of 1963 which has now been renamed the Compensatory and Contingency Financing Facility (CCFF) in 1988. Under it, an LDC can borrow within the total access limit of 95% of its quota from the Fund if its export earnings are reduced beyond its control and if the loss is large enough to require compensation.

The *second* scheme is known as STABEX signed between the EC and 52 African, Caribbean and Pacific (ACP) countries. It involves 17 agricultural commodities and iron ore. STABEX provides compensation “for shortfalls in their export earnings in any one year compared with the average value for the preceding four years”. The compensation is in the form of grants rather than loans on soft terms to the ACP countries.

CONCLUSION

The various ICAs and international price stabilisation schemes discussed above will help in reducing export instability and stabilising prices of primary products of LDCs. But the success of the various measures depends on the attitude of the developed countries, the extent to which they are prepared to cooperate with LDCs and remove trade restrictions on primary products.

EXERCISES

1. What do you mean by export instability? Explain the reasons that give rise to export instability in the case of developing countries. How does it affect the economies of such countries?
2. Explain the problem of export instability. How do international commodity agreements try to solve this problem?



PRIVATE FOREIGN INVESTMENT AND MULTINATIONAL CORPORATIONS

1. TYPES OF PRIVATE FOREIGN INVESTMENT

Private foreign investment refers to lending by foreign private individuals, institutions and corporations. It is of two types :

1. Direct Private Investment. It means that the foreign investor invests in the capital receiving country in the form of cash, raw materials, machinery, technical knowhow, expertise, etc. It may take the following forms :

- (a) starting a subsidiary of the investing concern;
- (b) formation of a company with a majority holding the collaboration with a local company or partners;
- (c) establishing a company financed exclusively by the foreign concern;
- (d) setting up a corporation for assembling the parent product, its distribution, sales and exports;
- (e) creating fixed assets by investing in infrastructure like power plants, refineries, roadways, etc. Direct private investment is mostly

made by Multinational Corporations (MNCs) or Transnational Corporations (TNCs).

2. Portfolio (or Indirect) Investment. Foreign private investment is also in the form of portfolio or *rentier* investment. It consists of the holdings of transferable securities, shares and debentures of the capital receiving country purchased by foreign private individuals and institutions. They are known as foreign institutional investors (FIIs). Such holdings do not lead to the control of the local company whose shares they purchase. They are entitled to the dividend only. They can withdraw their money any time by selling the shares in the local stock exchanges.

2. MERITS AND DEMERITS OF PRIVATE FOREIGN INVESTMENTS (PFI)

The following are the merits and demerits of private foreign investment

MERITS

Private Foreign Investment (PFI) possesses certain advantages which are discussed as under.

1. Use of Modern Techniques. PFI not only provides finance but also managerial, administrative and technical personnel, new technology, research and innovations in products and techniques of production which are in short supply in LDCs. They tend to increase the pace of development.

2. Encouragement to Local Enterprise. This may, in turn, encourage local enterprise to invest more itself in ancillary industries or in collaboration with foreign enterprise. In fact, foreign enterprise encourages local enterprise in two ways : directly by fostering local enterprise with men, money, and material, and by imparting training and experience to its personnel; and indirectly by creating demand

for ancillary or subsidiary services (like transport and training agents) which are uneconomical for private foreign enterprise to provide.

3. Diversification. When PFI invests in extraction of raw materials like oil, minerals, etc. in the running of plantation of tea, coffee, rubber, etc. in infrastructures like power, roadways, etc. in manufacturing, and in consumer goods, it leads to widespread diversification in LDCs.

4. Increasing Employment. All round diversification by PFI increases employment and income and helps to raise living standards in LDCs.

5. Wide Markets. When foreign investors set up different types of industries in LDCs, they also bring in a variety of marketing techniques. Consequently, markets for goods expand within and outside the country.

6. Filling the Two Gaps. By bringing capital and foreign exchange PFI helps in filling the savings gap and the foreign exchange gap in order to achieve the goal of national economic development in LDCs.

7. Reinvestment of Profits. A part of the profits from direct foreign investment is generally ploughed back into the expansion, modernization and development of related industries.

8. Greater Social Returns. PFI adds more value added to output in the recipient country than the return on capital from foreign investment. In this sense, the social returns are greater than the private returns on foreign investment.

9. Revenue to the Government. PFI also brings revenue to the government of an LDC when it taxes profits of foreign firms or gets royalties from concession agreements.

10. Increase in Productivity. PFI helps in raising productivity and hence the real wages of local labour. When foreign investment-

induced industrialization takes places, the real wages of the newly employed workers are higher than the real wages of workers in the rural sector of the economy. If PFI is in export-oriented industries, it leads to much higher social benefits than it is in import-substitution industries. Because the former have large backward and forward linkage effects. And if export industries are labour intensive, they also provide larger employment opportunities.

11. Less Burden on Balance of Payment. Direct foreign investment also places a burden on the balance of payments of an under-developed country in the early stage of development. For, the time lag between the starting of new business concerns and the reaping of profits is large. Moreover, profits are likely to be small in the earlier stages of production. Thus the remittance of profits from direct investment brings less pressure on the BOP when in the long run, the country produces also for foreign markets, it has a favourable effect on BOP.

12. Encouragement to Investment in LDCs. PFI flowing into a developing country also encourages its entrepreneurs to invest in other LDCs. Firms in India have started investment in Nepal, Uganda, Ethiopia and Kenya and other LDCs while they are still borrowing from abroad.

DEMERITS

PFI has certain disadvantages in the form of costs to the recipient country which tend to offset its benefits.

1. High Cost. The recipient country may be required to provide basic facilities like land, power and other public utilities, concessions in the form of tax holiday, development rebate, rebate on undistributed profits, additional depreciation allowance, subsidised inputs, etc. Such facilities and concessions involve high cost in absorbing an LDC's resources that could be utilized elsewhere by the government.

2. Foreign Exchange Crisis. To attract PFI, LDCs have to provide sufficient facilities for transferring profits, dividends, interest and

principle. If these payments lead to a net capital outflow, they create serious balance of payments difficulties. Thus the indirect costs of debt servicing and balance of payments adjustments create serious foreign exchange crisis, thereby adversely affecting the national economy.

3. Local Enterprise Discouraged. PFI adversely affect income distribution when it competes with home investment. Capital and other resources flow to foreign enterprises in preference to domestic enterprises. This reduces profits in the latter, thereby discouraging local enterprise.

4. Executive Posts to Foreigners. Many foreign concerns operating in LDCs, reserve all senior executive posts for their nationals and pay them very high salaries with many perks which are a huge drain on the resources of the recipient country. At best, they train local nationals for lower and middle level posts having little independent decision making.

5. Social Tensions. The lavish spending habits of foreign nationals have an undesirable *demonstration effect* on the nationals of LDCs and create social tensions.

6. Highly Capital-Intensive Technology. PFI brings in highly capital-intensive technologies which do not fit in the factor proportions of LDCs. Often obsolete and discarded machines and techniques are imported which involve high social costs in terms of replacement after a few years.

7. Loss of Domestic Autonomy. PFI also involves costs in the form of a loss of domestic autonomy when foreign firms interfere in policy-making decisions of the government of an LDC which favours the foreign enterprises. Such interference is usually resorted to by the multinational corporations.

8. Lopsided Development. Foreign investors set up industries in big cities and towns where infrastructural facilities are easily available. This leads to lop-sided development of the country

because the backward areas remain untouched. Thus regional disparities increase.

9. Create Monopolies. PFI often lead to the emergence of monopolies in certain fields of production thereby driving out local enterprise. Monopolies exploit the domestic consumers by overpricing the products.

10. Lead to Crisis. PFI are like fairweather friends. They invest when they expect high profits. But they withdraw their capital when they expect low profits. In the latter case, the host country is engulfed in a financial crisis and recession, as happened in the East Asian Countries.

3. MULTINATIONAL CORPORATIONS AND LDCs*

MEANING

A multinational corporation (MNC)¹ is a company, firm or enterprise with its headquarters in a developed country such as the United States, Britain, Germany, Japan, etc. and also operates in other countries, both developed and developing. They are spread not only in the LDCs of Asia, Africa and Latin America, but also on the continents of Europe, Australia, New Zealand, and South America. They are engaged in mining, tea, rubber, coffee and cocoa plantations; oil extraction and refining, manufacturing for home production and exports, etc. Their operations also include such services as banking insurance, shipping, hotels and so on. MNCs overwhelmingly dominate not only global investment but also international production, trade, finance and technology. Thus “like animals in the Zoo, MNCs come in various shapes and sizes, perform distinctive functions differently and their individual impact on the environment.” But adequate and reliable up-to-date data regarding the spread of MNCs in terms of subsidiaries, production, trade, finance and technology are rarely published and hence are not available.

* This section draws heavily on my article “Multinational Corporations—The Harms they are Doing to Developing Countries.” *The Welfare Economist*, March, 1976.

1. MNCs are also known as Transnational Corporations (TNCs), International or ‘global’ Corporations.

Sanjay Lal and Streeten define MNCs from economic, organizational and motivational viewpoints. The economic definition lays emphasis on the size, geographical spread and extent of foreign involvement of an MNC. According to this definition, a typical multinational company is one with net sales of 100 million dollars to several thousand million dollars having direct foreign investment in manufacturing usually accounting for at least 15 to 20 per cent of the company’s total investment. Direct foreign investment means at least 25 per cent participation in the share capital of the foreign enterprise.

The organisational definition stresses on some organisational aspects of an MNC, besides the economic ones. In this respect a truly MNC is that which—

“(a) acts as an organisation maximising *one overall objective* for all its units,

(b) treats the whole world (or the parts open to it) as its operational area, and

(c) is able to coordinate all its functions in any way necessary for achieving (a) and (b).

The motivational definition highlights “corporate philosophy and motivation in laying down criteria for multinationality. Thus, ‘True’ multi-nationality is generally indicated by a lack of nationalism, or a concern with the firm as a whole rather than with any of its constituent units or any country of its operation.” On this basis, firms are distinguished between ethnocentric (home-oriented), polycentric (host-oriented) and geocentric (world-oriented), on the basis of attitudes revealed by their executives.

Lal and Streeten define MNCs in general as very large firms with widespread operations which are clearly international in character and have more than five foreign subsidiaries or more than 15 per cent of total sales produced abroad, and acting in a cohesive manner to achieve maximum-profits or growth.

Some of the MNCs operating in India are Hindustan Lever, Procter & Gamble, Nestle (Consumer goods); Glaxo, Pfizer (drugs); Philips, BPL (electronics); Ceat, MRF (tyres); Daewoo Motors; Pepsi, Coca Cola (soft drink); Peter England, Byford, Arrow (readymades); Reebok, Nike (shoes); etc.

MERITS

The advantages flowing from MNCs to LDCs are based on the theories of direct foreign investment. Such theories are related to oligopolistic interdependence and monopolistic behaviour of MNCs. Hence they confer the following advantages on MNCs:

- 1. Large Capital Flow.** MNCs are financially very strong and hence provide large and cheap capital to LDCs by way of direct investment.
- 2. Risk Undertaking.** They undertake great risk in investing their funds in LDCs in the face of imperfect infrastructural facilities like power, transport, skilled labour, etc., low market demand and short supply of inputs.
- 3. Managerial Benefits.** They start new ventures and bestow the advantages of superior management, training, education and entrepreneurial ability in LDCs.
- 4. Superior Technology.** They transfer superior technology to LDCs based on R & D in the parent concerns because they are able to spend huge funds on R & D. This leads to the discovery and introduction of new processes and new and differentiated products in LDCs which tend to raise the standard of living of the people in LDCs.

5. Marketing Techniques. MNCs bring in new techniques of marketing in LDCs through market research at their headquarters. They adopt novel advertising and promotional methods which impart information to buyers and create demand for particular brands and products. This encourages competition.

6. Socially Desirable. MNCs are socially desirable in LDCs because they lead to a net increase in capital formation, output and employment.*
[_](#)

DEMERITS

MNCs have come to be regarded as agent of exploitation in LDCs because of their harmful operations which are highlighted in their *modus operandi*.

1. High Profits. The US-based MNCs insist on cent per cent ownership in LDCs and they have succeeded in this in Singapore, Mexico, Hong Kong, Brazil and Taiwan. With low rates of taxation in these countries, they have been exporting “super profits” to America. In countries like India where since the 1960s, the MNCs are allowed to operate as joint ventures with 25 to 40 per cent participation, they enjoy a number of privileges which again tend to increase their profits manifold.

2. Charge High Price. MNCs charge very high price for imported equipment which is 30 to 40 per cent higher than the competitive international price.

3. Highly Paid Executives. The staff which comes in the wake of an MNC is paid very high salaries. Some of their top executives get much more than the highest paid executive head of the state in which they serve.

4. Social Inequality. MNCs pay to the locally employed labour twice and even three times more than what they might earn in local firms. This not only leads to social inequality but also breeds discontent and unrest among the workers employed in indigenous industry.

5. Pre-Empt Savings. MNCs are pre-empting local savings by overpricing the imports and underpricing the exports of LDCs. In cases where there is competition from local entrepreneurs, the MNCs undercut them by charging low prices for their products. As a result, the local firms are squeezed out of business. But if there are very few local firms to compete with the MNCs buy their majority shares or merge them to exercise control over them.

6. Outmoded Capital-Intensive Technology. MNCs transfer second rate and overpriced technology to LDCs.^{**} More often, they try to minimise the transfer of technology to such countries by (a) carrying out R & D in the parent company located at the headquarter; (b) neglecting the training of local personnel for R & D posts; and (c) holding closely the technology itself. Moreover, the technology which the MNCs transfer into LDCs is capital-intensive and hence unsuited to their capital-scarce and labour-surplus economies.

7. Social Inequalities. MNCs set up their plants in big towns and cities in LDCs where infrastructural facilities are easily available. Thus they accentuate sectoral inequalities and strengthen dualism in such countries.

Besides, the long-term effect of direct and indirect investment by MNCs on the balance of payments is usually negative as they repatriate huge amounts in the form of royalties, profit, interest, dividend, capital, etc.

8. Political Interference. Last but not the least, MNCs influence the internal politics to the detriment of LDCs by bribing the legislators not only directly but also indirectly. They offer posts in the higher echelons of their companies to the privileged sections of the society, especially to the friends and relatives of the local politicians, bureaucrats and the economic oligarchies. They also subvert domestic fiscal and monetary policies in LDCs through their influence on politicians.^{*}

* For other benefits of MNCs refer of the Merits of PFI in the previous section.

** However, there have been exceptions in the case of Canada, Taiwan and Hong Kong by US multinationals because the products manufactured in their plants located in these countries are exported to the USA.

* For other demerits refer to the Demerits of PFI given in the previous section.

CONCLUSION

It is not that MNCs are simply the agents of exploitation, they also act as agents of development. By establishing manufacturing plants, providing production, managerial, technical, organisational and marketing skills, and by harnessing their resources, MNCs have helped in augmenting the GNP of Singapore, Hong Kong, Taiwan and Canada. But as pointed out earlier, these benefit accruing to such countries have been the outcome of the self-interest of MNCs, that is, the need to meet the US domestic market.

The problem before the other developing countries like India is how to control and curtail the damaging effect of MNCs and harness them for their maximum benefit. All this depends upon the “will” to control the working of these global giants. Given this, LDCs should have stringent anti-trust laws, as we have in India the twin institutions known as the Monopolies Commission and the MRTP Act. MNCs should be encouraged to enter into ‘licensing agreements’ with a local manufacturer who may be taught the use of the patented processes in lieu of a fixed royalty.

LDCs should also take advantage of the expertise and superior technical know-how of MNCs by entering into ‘turnkey agreements’ with them whereby a foreign company undertakes to build a plant or help in exploiting their natural resources, imparts training to local personnel, provides technical know-how, starts production and then leaves the country for good by entrusting the entire operations to the local firm. In lieu of these services, MNC should be paid either a fixed fee or cost-plus fee. India has entered into such agreements for the exploration of its off-shore oil resources.

Further, there should be joint venture agreements on 60 : 40 basis at the maximum by the local concerns with MNCs. All joint ventures with the foreign concerns should be based on specific agreements to manufacture the product within the country with indigenously produced and procured raw materials (provided they are available), to train and employ nationals in high jobs, to carry on R & D within the host country and to reinvest a certain percentage of profits within it.

It is advisable, as suggested by Streeten, that the government of LDCs should not press MNCs to pay specially high wages to local labour. Rather, MNCs should be asked to employ local people at the prevalent rates for the same jobs in the country. On the other hand, they should tax MNCs more heavily so that the people of the country benefit rather than the few people who work for them. This increased tax revenue may be spent in providing greater infrastructural facilities to the people which will benefit all sections of the society including MNCs. Moreover, foreigners receiving higher salaries and better facilities than their local counterparts in similar jobs should also be taxed equally.

Given the conditions laid down above, MNCs should be encouraged to establish plants in backward areas or regions of LDCs so that regional imbalances are ironed out.

Since there is no likelihood of any agreement on the international plane over a 'code of conduct' which may govern the operations of MNCs, every LDC should have its own independent agency to report on the working of MNCs from time to time in that country and should not hesitate to take stern actions against the offending giants which may even be tantamount to nationalisation.

EXERCISES

1. Discuss the role of private foreign investment in the economic development of an underdeveloped country.

2. Trace the reasons for the spread of multinationals in underdeveloped countries. Why are they regarded as agents of exploitation in such countries?
3. Are multinationals agents of exploitation or development in underdeveloped countries? Give reasons in support of your answer. How can they be made more useful for such countries?



THE INTERNATIONAL MONETARY FUND (IMF)

1. ORIGIN OF IMF

The International Monetary Fund (IMF), also called the Fund, is an international monetary institution established by 44 nations under the Bretton Woods Agreement of July 1944. The principal aim was to avoid the economic mistakes of the 1920s and 1930s. The attempts of many countries to return to the old gold system after the First World War failed miserably. The World Depression of the thirties forced every country to abandon the gold standard. This led to the adoption of purely nationalistic policies whereby almost every country imposed trade restrictions, exchange controls and resorted to exchange depreciation in order to encourage its exports. This, further, brought a marked decline in world trade and extension of depression. It was against this background that 44 nations assembled at the United Nations Monetary and Financial Conference at Bretton Woods, New Hampshire (USA) from July 1 to July 22, 1944. Thus the IMF was established to promote economic and financial co-operation among its members in order to facilitate the expansion and balanced growth of world trade. It started functioning from March 1, 1947. In June 1996, the Fund had 181 members.

2. OBJECTIVES OF THE FUND

The fundamental purposes and objectives of the Fund had been laid down in Article 1 of the original Articles of Agreement and they have been upheld in the two amendments that were made in 1969 and 1978 to its basic Charter. They provide the framework within which the Fund functions. They are as under :

1. To promote international monetary co-operation through a permanent institution which provides the machinery for consumption and collaboration in international monetary problems.
2. To facilitate the expansion and balanced growth of international trade and to contribute thereby to the promotion and maintenance of high levels of employment and real income and to the development of the productive resources of all members as primary objectives of economic policy.
3. To promote exchange stability, to maintain orderly exchange arrangements among members, and to avoid competitive exchange depreciation.
4. To assist in the establishment of a multilateral system of payments in respect of current transactions between member and in the elimination of foreign exchange restrictions which hamper the growth in the world trade.
5. To lend confidence to members by making the Fund's resources available to them under adequate safeguards, thus providing them with opportunity to correct maladjustments in their balance of payments without resorting to measures destructive of national or international prosperity.
6. In accordance with the above, to shorten the duration and lessen the degree of disequilibrium in the international balance of payments of members.

3. FUNCTIONS OF THE FUND

To fulfil the above objectives, the IMF performs the following functions :

1. The IMF operates in such a way as to fulfil its objectives as laid down in the Bretton Woods Articles of Agreements. It is the Fund's duty to see that these provisions are observed by member countries. Some of the provisions of the original Articles such as relating to exchange rates have become obsolete due to international monetary events. Accordingly the Fund has amended its Articles of Agreement to make appropriate adjustments.
2. The Fund gives short-term loans to its members so that they may correct their temporary balance of payments disequilibrium.
3. The Fund is regarded "as the guardian of good conduct" in the sphere of balance of payments. It aims at reducing tariffs and other trade restrictions by the member countries. Articles VII of the Charter provides that no member shall, without the approval of the Fund, impose restrictions on the making of payments or engage in discriminatory currency arrangements or multiple currency practices. It is the functions of the Fund to have a surveillance of the policies being adopted by the member countries.
4. The Fund also renders technical advice to its members on monetary and fiscal policies.
5. It conducts research studies and publishes them in IMF staff papers, Finance and Development, etc.
6. It provides technical experts to member countries having BOP difficulties and other problems.
7. It also conducts short training courses on fiscal, monetary and balance of payments for personnel from member nations through its Central Banking Service Development, the Fiscal

Affairs Department, the Bureau of Statistics and the IMF Institute.

Thus the Fund performs financial, supervisory and controlling functions.

4. ORGANISATION AND STRUCTURE OF THE FUND

The Second Amendment of the Articles of Agreement made important changes in the organisation and structure of the Fund. As such, the structure of the Fund consists of a Board of Governors, an Executive Board, a Managing Director, a Council and a staff with its headquarters in Washington, U.S.A. There are ad hoc and standing committees appointed by the Board of Governors and the Executive Board. There is also an Interim Committee (now the International Monetary and Financial Committee—IMFC) appointed by the Board of Governors. The Board of Governors and the Executive Board are decision-making organs of the Fund. They exercise powers and take decisions that are binding on members and the Fund. The Board of Governors is at the top in the structure of the Fund. It is composed of one Governor and one alternate Governor appointed by each member. Normally, a member appoints its minister of finance or the Governor of its central bank as its Governor. The alternate Governor can participate in the meetings of the Board but has the power to vote only in the absence of the Governor.

The Board of Governors which has now 24 members, meets annually in which details of the Fund activities for the previous year are presented. The annual meeting also takes a few decisions with regard to the policies of the Fund. Special meetings can be convened by any of the five members having 25 per cent of the total voting rights. As a matter of practice, the majority of decision-making powers of the Board of Governors have been delegated to the Board of Executive Directors such a decisions on access by the members of the Fund's resources, decisions on charges and remuneration and the review of consultations between the Fund and its members.

The Executive Board has 21 members at present. Five Executive Directors are appointed by the five members (USA, UK, W. Germany, France and Japan) having the largest quotas. Saudi Arabia has appointed a sixth Executive Director by being one of the two largest contributors to the Fund. 15 Executive Directors are elected at intervals of two years by the remaining members according to the constituencies on a roughly geographical basis.

There is a *Managing Director* of the Fund who is elected by the Executive Directors. He is usually a politician or an important international official. He is the non-voting Chairman of the Executive Board. Besides acting as the Chairman of the Executive Board, the Managing Director is the head of the Fund staff and is responsible for its organisation, appointment and dismissal.

The *Executive Board* is the most powerful organ of the Fund and exercises vast powers conferred on it by the Articles of Agreement and delegated to it by the Board of Governors. So its powers relate to all Fund activities, including its regulatory, supervisory and financial activities. Any major change in the IMF procedure requires 85 per cent majority in the Executive Board. Hence the discretion lies with the US and EEC as they have 22 per cent and 27 per cent of the voting strength respectively. The Executive Board is in the continuous session and meets several times a week.

The Interim Committee (now IMFC) was established in October 1974 to advise the Board of Governors on supervising the management and adaptation of the international monetary system in order to avoid disturbances that might threaten it. It currently has 22 members.

The Development Committee was also established in October 1974 and consists of 22 members. It advises and reports to the Board of Governors on all aspects of the transfer of real resources to developing countries and makes suggestions for their implementation.

5. WORKING OF THE FUND

The IMF has amended its policies in keeping with the changing world economic situations relating to its capital structure, quotas, procedure of lending, exchange rates and other policies from time to time.

1. FINANCIAL RESOURCES

The capital of the Fund includes quotas of member countries, amount received from the sale of gold, GAB and loans from members nations.

Quotas and their Fixation. The Fund has General Account based on quotas allocated to its members. When a country joins the Fund, it is assigned a quota that governs the size of its subscription, its voting power, and its drawing rights. At the time of the formation of the IMF, each member was required to pay 25 per cent of its quota in gold or 10 per cent of its net official holdings of gold and US dollars whichever was less. Under the Second Amendment effective 1 April 1978, 25 per cent of a member's quota payable in gold was substituted by SDRs or usable currencies. The remaining 75 per cent of quota was to be furnished in the country's own currency. But it was kept in the country's central bank. The practice of keeping gold reserves with the Fund was discontinued from April 1978 and the Fund has been delinked from the gold since then. Now a member country is allowed to maintain the value of its currency and quota in terms of the Special Drawing Rights (SDRs).

In order to meet the financial requirements of the Fund, the quotas are reviewed every five years and are raised from time to time. But quotas can only be raised by a resolution of the majority of 85 per cent of the total voting power of the Fund's members. When the Fund started operation in March 1947, the total quotas were 7.6 billion dollars which had been increased to SDR 146 billion in April, 1994 with the Tenth General Review of Quotas. This increase was 50% of members quotas. With the Eleventh Review of Quotas

effective March 1998, the quotas were raised by 45% to SDR 212 billion.

Thus a member country's quota determines its subscription to the Fund, its relative voting power, allocation of SDRs and access to Fund's resources. A member's voting power is based on one vote for each SDR 100,000 of quota in addition to the basic votes of 250 for each member. When a country becomes the member of the Fund, it is allocated a quota which raises the total resources of the IMF.

2. FUND BORROWINGS

Besides performing regulatory and consultative functions, the Fund is an important financial institution. The bulk of its financial resources comes from quota subscriptions of member countries. Besides, it increases its funds by selling gold to members. Further, it borrows from government, central banks or private institutions of industrialised countries, the Bank for International Settlements, and even from OPEC countries, like Saudi Arabia.

General Arrangements to Borrow (GAB) : The Fund also borrows under the General Arrangements to Borrow from its eleven industrialised members in order to forestall or cope with an impairment of the international monetary system. The GAB remained in force from October 1962 to December 1998, when its total borrowings was SDR 17 billion. Under the *New Arrangements to Borrow*, the developed countries have sanctioned \$ 25 billion.

3. FUND LENDING

The Fund has a variety of facilities for lending its resources to member countries. Lending by the Fund is linked to temporary assistance to members in financing disequilibrium in their balance of payments on current account. If a member has less currency with the Fund than its quota, the difference is called *reserve tranche*. It can draw up to 25 per cent on its reserve tranche automatically upon representation to the Fund for its balance needs. It is not charged

any interest on such drawings, but is required to repay within a period of three to five years.

Credit Tranches. A member can draw further annually from balance quota in 4 instalments upto 100% of its quota from credit tranches. Drawings from credit tranches are conditional because the members have to satisfy the Fund of adopting a viable programme to ensure financial stability. To meet the severe BOP problems, the Fund has been gradually raising the limit of borrowings by its members over the years under the credit tranche. Now members can draw up to the equivalent of 300 per cent of their new quotas on the total net use of the Fund's resources. The limits exclude drawings under CCFF, BSAF, SAF, STF and ESAF. Purchases by members are made under stand-by arrangement rather than directly. Borrowings up to this limit are allowed if a member country is making particularly strong efforts to correct its balance of payment disequilibrium and adjust its economy.

Other Credit Facilities. Since the 1960s, the Fund has created several new credit facilities for its members. Loans from these facilities are separate from tranches and are available for a longer period. These are :

1. Buffer Stock Financing Facility (BSFF). It was created in 1969 for financing commodity buffer stock by member countries. The facility is equivalent to 30 per cent of the borrowing member's quota. Repurchases are made in 3¼ to 5 years. But the member is expected to cooperate with the Fund in establishing commodity prices within the country.

2. Extended Fund Facility (EFF). It is another specialised facility which was created in 1974. Under EFF, the Fund provides credit to member countries to meet their balance of payments deficits for longer periods, and in amounts larger than their quotas under normal credit facilities. EFF provides credit upto a period of 10 years and loans upto 300 per cent of a member's quota are allowed. It is based on performance criteria and drawings instalments. It is availed of by developing countries.

3. Supplementary Financing Facility (SFF). It was established in 1977 to provide supplementary financing under extended or stand-by arrangements to member countries to meet serious balance of payments deficits that are large in relation to their economies and their quotas. The facility has been extended to low-income developing member countries of the Fund. To reduce the cost of borrowing under SFF to such countries, the Fund established Subsidy Account in 1980 through which it makes subsidy payments to borrower countries.

4. Structural Adjustment Facility (SAF). The Fund set up SAF in March 1986 to provide concessional adjustment to the poorer developing countries. Under it, loans are granted to them to solve balance of payments problems and to carry out medium term macro-economic and structural adjustment programmes. The SAF was created with SDR 2.7 billion of resources which come mainly from repayments on loans from the Trust Fund. Resources are made available to the poorer countries on highly concessional terms of .5 to 1 per cent interest with the principal repayable over 5½ to 10 years with a five-year grace period. Disbursements are made annually and are linked to the approval of annual arrangements with members receiving equivalent of 15 per cent of quota under the first annual arrangement, 20 per cent under the second and 15 per cent under the third.

5. Enhanced Structural Adjustment Facility (ESAF). The ESAF was created in December 1987 with SDR 6 billion of resources for the medium term financing needs of low income countries. The objectives, eligibility and basic programme features of this facility are similar to those of the SAF. But eligible members can receive a great deal more assistance under the ESAF than under the SAF upto 100 per cent of quota over a three-year programme period, with provision for upto 250 per cent in exceptional circumstances. Disbursements under the ESAF are semi-annual instead of annual.

6. Compensatory and Contingency Financing Facility (CCFF). The CCFF was created in August 1988 to provide timely

compensation for temporary shortfalls or excesses in cereal import costs due to factors beyond the control of the member and contingency financing to help a member to maintain the momentum of Fund-supported adjustment programmes in the face of external shocks on account of factors beyond its control. In 1990, the Fund introduced an import element into CCFF for a temporary period upto the end of 1991 to help members overcome the Gulf War Crisis. This was within 95 per cent of quota for CCFF. The Fund also decided to expand the coverage of CCFF. Besides workers' remittances and travel receipts, shortfalls in other services such as receipts from pipelines, canals, shipping, transportation, construction and insurance have been included in the calculation of export shortfalls under compensatory financing.

7. Systematic Transformation Facility (STF). In April, 1993, the IMF established STF with \$6 billion to help Russia and other Central Asian Republics to face balance of payments crisis.

8. Emergency Structural Adjustment Loans (ESAL). The Fund established ESAL facility in early 1999 to help the Asian and Latin American countries inflicted with the financial crisis. Under it, such countries are given short-term loans 3% to 5% above the Fund's normal interest rate which are to be repaid in a short period.

9. Contingency Credit Line (CCL). The CCL was created in April 1999 to protect fundamentally sound countries from the contagion of financial crisis occurring in other countries, rather than from domestic policy weaknesses. Only countries that over the medium term can finance BOP comfortably and enjoy healthy financial sectors and strong debtor-creditor relations are considered for CCL. So far no country has drawn from it.

4. EXCHANGE RATES

The original Fund Agreement provided that the par value of each member country was to be expressed in terms of gold of certain weight and fineness or US dollars. The underlying idea was to create a system of stable exchange rates with orderly cross rates. But the

Fund was obliged to agree to changes in exchange rates which did not exceed ± 1 per cent of the initial par value. A further change of ± 1 per cent required the permission of the Fund. Since 1971, these provisions have been changed and the international monetary system has moved from fixed exchange rates to flexible exchange rates. Under the new system, the member countries are not expected to maintain and establish par values with gold or dollar. The Fund has no control over the exchange rate adjustment policies of the member countries.

But under Article IV of the Second Amendment, effective April 1978, the Fund has laid down principles for the guidance of exchange rate policies of its members : (a) to avoid manipulation of exchange rates in order to gain an unfair competitive advantage over other members; (b) to intervene in the exchange market to counter disorderly conditions; and (c) to take into account in their intervention policies the interests of other members.

5. OTHER FACILITIES

The IMF advises its member countries on various problems concerning their BOP and exchange rate problems and on monetary and fiscal issues. It sends specialists and experts to help solve BOP and exchange rate problems of member countries. They confer with local officials and suggest monetary, fiscal and other measures in their reports. The Fund has set up three departments to solve banking and fiscal problems of member countries. *First*, there is the Central Banking Service Department which helps member countries with the services of its experts to run and manage their central banks and to formulate banking legislation. Such services are especially provided to developing countries to reform their banking system. *Second*, the Fiscal Affairs Department renders advice to member countries concerning their fiscal matters. *Third*, The IMF Institute conducts short-term training courses for the officers of member countries relating to monetary, fiscal, banking, and BOP policies. Besides, the Fund's research department publishes many reports in a year containing material relating to different policy measures.

These publications include IMF Annual Report and IMF Staff Papers, Finance and Development Journal, etc.

ITS CRITICISMS

The IMF has been severely criticised in recent years for mishandling global financial crises in East Asia and Latin America, aggravating poverty in developing countries, encouraging bad policies by governments and financial investors and favouring the developed countries. We discuss below some points of criticism.

1. Fund Conditionalities. The Fund has developed conditionalities over the last five decades or so which a country has to fulfil for getting a loan from the Fund. Prior to the 1970s, the Fund laid stress on *expenditure reduction* for meeting disequilibrium in the balance of payments of a country. In the 1970s, the Fund conditionality included the need to take into account the *causes of balance of payments difficulties* of members requesting for Fund resources, their *economic priorities and their social and political* requirement. On March 2, 1979, a *new set of guidelines* was laid down for the use of Fund resources, besides the previous conditionality practices. These include periodic assessment of the experience of the member country with adjustment programmes financed by Fund resources. The new emphasis is on policies to increase productivity and to improve resource allocation in the programmes supported by Fund resources. They also include stringent Fund conditionalities or performance criteria such as controlling deficits, reforming the banking system, even closing down non-viable units, altering systems of administration and laws which give rise to corruption. The release of every installment requires their review.

The Fund has laid down some more conditionalities after the 1995 Mexican and the Asian financial crises. (1) to liberalise trade by removing exchange and import controls; (2) to eliminate all subsidies so that the exporters are not in an advantageous position in relation to the other trading countries; and (3) to treat foreign lenders on an equal footing with domestic lenders. Besides, the Fund insists on good governance. Thus the Fund exercises surveillance over the

exchange rates monetary, fiscal and related policies of the borrowing countries which makes a mockery of its policy of non-interfering in their internal economic affairs.

2. High Interest Rates. Besides, these hard conditionalities, the Fund charges high interest rates on loans of different types. They are a great burden on the borrowing countries. This is the reason that developing countries like India are so heavily burdened with the debt service charge that fresh borrowings are negative.

3. Secondary Role. The Fund has been playing only a secondary role rather than the central role in international monetary relations. It does not provide facilities for short-term credit arrangements. This has resulted in “swap” arrangements among the central banks of the Group of Ten of the leading developed countries. Under these arrangements, these countries exchange each other’s currencies and also provide short-term credit to tide over temporary disequilibria in their balance of payments. Such swap arrangements have led to the growth of Euro-currency Market. All this has reduced the importance of the Fund.

4. Lack of Resources. The IMF has not enough resources for immediate future. But these are not sufficient to meet the future needs of its members. The need is to raise the resources of the Fund to safeguard the international financial system which is dominated by volatile capital flows. The developed countries are not willing to increase the quota of the Fund.

5. Failure to Maintain Exchange Rate Stability. The Fund has failed in its objective of promoting exchange stability and to maintain orderly exchange arrangements among members. Under the original Fund agreements, the exchange rate was permitted to fluctuate within a range of 1 per cent above to 1 per cent below the official price. This was known as the “adjustable peg” system. The exchange rate of every member country was fixed in terms of the “golden dollar”. Over the years US gold stock continued to decline, the US balance of payments continued to deteriorate. Consequently, the Bretton Woods system collapsed on 15 August, 1971 when

President Nixon announced that United States would no longer convert dollars into gold and that it would not intervene in foreign exchange markets to maintain exchange rate stability. Since then there has been a mixture of exchange rate systems of nationally managed floating, joint floating, and pegged exchange rates. According to Prof. Schwartz, the IMF has lost its objective.

6. Failure to Eliminate Foreign Exchange Restrictions. One of the objectives of the Fund has been to eliminate foreign exchange restrictions which hamper the growth in world trade. The Fund has not been successful in achieving this objective. The world trade is restricted by a variety of exchange controls and multiple exchange practices.

7. Discriminatory Politics. The Fund has been criticised for its discriminatory policies against the developing countries and in favour of the developed countries. It is, therefore, characterised as “Rich Countries Club”. Although the majority of its members are the developing countries of Asia, Africa and Latin America, yet it is dominated by the rich countries especially the United States. The latter often adopts a rigid attitude in matters concerning increasing the Fund resources and granting loans to developing countries.

8. Responsible for Asian Crisis. The sudden and unexpected East-Asian crisis in Phillipines, South Korea, Thailand, Indonesia and Malaysia put a question mark on the working of the Fund. Friedman has put the blame on the IMF for global crisis because it has been the result of government’s intervention in the market, both internationally via loans, subsidies or taxes, and externally via the IMF. With the collapse of the Bretton-Woods system in 1971 when the member countries adopted the floating exchange rate policy, the Funds role of regulating the exchange rate ended. Prior to the 1995 Mexican crisis, the objective of the Fund was to provide advice, information and loans to its members. But when it helped Mexico in a bail out package in its crisis of 1995, it acted the international lender of last resort. Under it, the Fund laid emphasis on close financial relations among banks, corporations and governments and to

increase the operations of stock and bond markets so that there is greater competition between domestic and global financial institutions. This very policy led to the Asian and global financial crisis when there was successive decline in shares, bonds and currencies of these countries. The real beneficiaries of this policy were not the borrowing countries but the foreign banks and financial institutions who lend to these countries which failed to repay the loans. When due to declining exchange rates, they started withdrawing their funds, there was a crisis in the borrowing countries. A Michael Musa, the IMF Chief Economist, admitted in August 2000 that the recent financial crisis was due to high openness to international capital flows, especially short-run credit flows of countries with fragile financial systems. According to Schwartz, since the Fund lacks in high powered base money, it failed to act as an international lender of last resort. Thus the IMF has been weak in controlling financial crisis. Schwartz, therefore, suggests that it should be shut down. According to Friedman, it should be abolished as it did more harm than good.

CONCLUSION

Despite these criticisms, the IMF has shown sufficient flexibility to mould itself in keeping with the changing international economic conditions. The original Articles of Agreement were amended in 1978 to legalise flexible exchange rates, raise quotas to increase the Fund's resources and to dethrone the gold in Fund transactions. To solve the problem of international liquidity, it has created deficits, the Fund has been successively raising the limit of their borrowings which stands at 450 per cent of their quotas. The Fund has been helping the developing countries in their balance of payments and other problems through such facilities as CFF, BSFF, EFF, SFF, SAF, ESAF, CCFF, etc. Finally, the usefulness and success of the Fund lies in that its membership has risen from 44 in 1947 to 182.

6. SUGGESTIONS TO REFORM THE IMF

Prof. Samuelson in his article *Three Cheers for the IMF* published in 1997 praised the working and achievements of the IMF. According to him, the reason for the Mexican financial crisis was that it did not follow IMF's warning when hot money was flowing in it. The same reason was responsible for the Asian crisis. On the other hand, Prof. Friedman in his article in October 1998 blamed the IMF for the global crisis and pleaded for abolishing it as it did more harm than good. Prof. Anna Schwartz in an article *Time to Terminate ESF and the IMF* wrote in 1998 also blamed the policies of IMF and opined that reform of the IMF is not the answer. Therefore, it should be shut down. These are extreme views of Friedman and Schwartz in which cannot be accepted. As Horst Kohler, the new Managing Director of the Fund himself admitted: the "IMF is not a god that knows everything". Therefore, efforts should be made to improve its policies so that the *contagion effect* of the financial crisis does not spread and is not repeated in future. For this, the following measures have been suggested at different economic fora :

1. For the East Asian, Latin American and other developing countries which are facing financial crisis or others which fear the *contagion effect*, the IMF should make provision for giving financial help on concessional terms.
2. The Fund should formulate a plan which acts as a *safety net* for countries during economic crisis.
3. A free global trading system should be established which is proper and justifiable towards developing countries.
4. The IMF should formulate such macro-economic policies for developed countries that provide safety to the growth of world output and trade. They should act as highly effective safety net for the global economy.
5. It should persuade the donor countries to increase their commitment towards government development aid to developing countries.

6. The Fund should advice and help in reorganising the banking system and corporate sectors in developing countries.
7. It should suggest policy measures for countries to have and continue open market system and to avoid protectionism.
8. The Fund should lay emphasis on member nations to put an end to corruption and have good governance for speedy growth of their economies.
9. It should provide loans to developing countries on such conditions so that they are able to increase their internal resources and do self-financing for their economic programmes in the long run.
10. To remove the present lopsided voting strength which favours the developed countries, quotas which decide voting strength should be more equitably distributed.
11. To escape from the “contagion effect”, the Development Committee of the Fund has asked the developing countries to keep their market open, remove protection, reform the banking system, put an end to corruption and by improving administration strengthen their institutions and policies. On the other hand, it has suggested to developed countries to undertake speedy and specific measures which may lead to global financial stability and high growth momentum. But all this depends on the extent to which both the developing and developed countries followed the Funds suggestions.
12. The Fund should change its loan practices to increase transparency, shorten maturity and charge a penalty interest rate.
13. It should eliminate development lending which should be with the World Bank.

14. For an effective role as the global monetary and financial system, there should be transparency and accountability of its functioning.
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7. INDIA AND THE IMF

India is one of the founder members of the IMF. It signed the Fund Agreement on 27 December, 1945. Till 1970 India's quota in the Fund was the fifth and it had the power to appoint a permanent Executive Director. With the increase in the Fund quota after May 1970, the quotas of Japan, Canada and Italy increased more than that of India. Accordingly, India ceased to hold a permanent position as Executive Director of the Fund. With the Eleventh Review of Quotas, India's quota in the IMF declined from 2.09 per cent to 1.96 per cent. As a result, India's position in the Fund quota came down to 13th. However, in absolute terms, India's quota increased from SDR 3.56 billion to 4.16 billion.

The par value of the Indian rupee was fixed at 0.26801 gram of gold or 30.225 US cents when India became its member. When the rupee was devalued on September 18, 1949, its par value was reduced to 0.186621 gram of gold or 21 US cents. It was further reduced to 0.118489 gram of gold or 13.33 US cents on June 6, 1966 when the rupee was again devalued. Since the devaluation of the dollar in May 1972, its par value fell further. But with the Second Amendment of the Fund Agreement, the exchange rate of the rupee has been floating like other currencies and is linked to SDR.

India has been one of the major beneficiaries of the Fund assistance. It has been getting aid from the various Fund agencies from time to time and has been regularly repaying its debt. Between 1947 to 1955, India borrowed \$100 million twice to tide over its balance of payments difficulties. India borrowed eight times between 1957 to 1975 a total sum of \$1764 million. It also received loan disbursements at concessional terms to overcome balance of

payments difficulties amounting to SDR \$529 million from July 1, 1978 to February 21, 1981 under the IMF Trust Fund.

In 1979, India entered into agreement with the IMF for a loan of \$5.6 billion or Rs. 5,220 crores under the EFF. It started receiving the loan in instalments for a three-year period beginning from November 9, 1981. Till April 1984, it had drawn \$ 3.9 billion and intimated the Fund that it would not be drawing the remaining amount at all. After April 1984, India did not take any recourse under its modified Compensatory and Contingency Financing Facility (CCFF). In January 1991, it received \$ 0.79 billion as the first credit tranche of a stand-by arrangement for three months. At the same time, India got the first credit of \$ 1.09 billion under CCFF, followed by the second loan of \$ 220 million in July 1991 and the third loan of \$ 635 million in September 1991. On 31 October, the IMF approved a stand-by credit of \$ 2.2 billion to be disbursed to India in 8 tranches over a 20-month period from November 1991 to June 1993. Normally, member countries get only 50 to 60 per cent of their quotas in loans. But India received more than 100 per cent of its quota. India's quota in the Fund was \$ 3.01 billion (or SDR 2.2 billion) and its gross drawings from the Fund from January 1991 to June 1993 were \$ 3.5 billion. This speaks of the Fund's confidence in the Indian economy.

Besides receiving loans to meet deficit in its balance of payments, India has benefitted in certain other respects from the membership of the Fund. By virtue of being a member of the Fund, India is also a member of the IBRD (World Bank) from which it has been receiving financial aid for its various development projects. It has been getting advisory help from the Fund under the Fund surveillance conditionality. A Fund team of four or five economists often visits India. These economists exchange views with Indian officials on India's balance of payments and exchange rate problems and suggest monetary, fiscal, and other measures to solve them. The Fund has also been providing short-term training courses to Indian personnel on monetary, fiscal, banking, exchange, and balance of payments policies through its Central Banking Service Department,

the Fiscal Affairs Department, and the IMF Institute. Thus India has gained much as a member of the Fund.

8. THE ROLE OF GOLD IN THE IMF

The Fund Agreement fixed the par values of currencies of its members in terms of gold. This led economists like Williams and Halm to suggest that the Fund's gold provisions were "not just window dressing". Rather, they essentially related to a gold standard plan. On the other hand, Keynes held that the IMF had "dethroned" gold and its proposals were "the exact opposite of the gold standard". Let us analyse these views one by one.

According to the first view, the Fund incorporates all the features of the international gold standard minus its disadvantages. The par values of the currencies of its members are fixed in terms of gold. Therefore, the exchange rates of member countries are fixed in the same manner as under the gold standard. Further, gold is expressed as a common denominator for international transactions, they are like short-term capital movements under the gold standard. Member countries may buy and sell gold at the international price fixed by the Fund. The Fund may also buy gold from members at the same price. Again, the Fund mechanism has the same monetary and price effects as under the gold standard, affecting central bank reserves of member countries in precisely the same manner as the movement of gold under the gold standard. For example, when a deficit country buys foreign exchange from the Fund, the volume of international currency with its central bank is reduced which in turn reduces the reserve position of its commercial banks. They are forced to contract credit and deflation starts. In the opposite case, the volume of international currency increases in surplus country. As a result, the reserves of its commercial banks increase. They expand credit and there is inflation. Thus the Fund mechanism resembles the gold standard mechanism.

The Fund scheme differs from the gold standard in the following ways : *First*, under the gold standard all countries must adopt gold standard within their countries. Under the Fund scheme, the member countries are not required to adopt the gold standard. *Second*, the exchange rates are rigidly fixed under the gold standard. But they are flexible under the Fund scheme. They can be changed to correct fundamental disequilibrium by a member country. *Third*, the gold standard requires automatic adjustment of international prices and incomes in order to maintain rigid exchange rates. But the Fund requires adjustments in exchange rates in keeping with the internal price and income structure of the country. *Fourth*, under the Fund Charter, there is not provision for a deficit country to adopt deflationary policies. Rather, it aims at removing deflationary tendencies in member countries. *Fifth*, the supply of gold influences the value of national currency under the gold standard. But the Fund makes international currencies available to members independent of the international currencies in the “Fund pool” and loans them to deficit member countries. *Sixth*, the Fund allows temporary exchange restrictions by its member to correct their fundamental disequilibria, whereas such restrictions are not allowed under the gold standard. *Seventh*, according to Ellsworth, since the Fund Agreement “did not prescribe gold as the sole form in which reserves could be held it did not usher in a true gold standard”. Thus the Fund mechanism differs fundamentally from the gold mechanism in so many way, that led Keynes to remark that it is “the exact opposite of the gold standard”.

Although the Fund “dethroned” the gold standard, yet gold continued to play an important role in the Fund till the Second Amendment to the IMF Charter. The par values of currencies of member countries were expressed in terms of gold or US dollar, one dollar being equivalent to 0.888671 gram or \$35 an ounce of gold. When the US devalued the dollar in May 1972, the weight of gold behind dollar was reduced to 0.818513 gram or \$ 38 an ounce for gold. With the Second Amendment, a new international currency, SDR, has been introduced for all Fund transactions with member countries. This currency is no longer linked to gold but to a basket of five major

currencies viz. the US Dollar, German Mark, French Franc, Japanese Yen, and British Pound. There is no official price of gold and members are required to make payments in gold to the Fund. Part of Fund's gold holdings have been sold in the market for the benefit of developing member countries. At the time of the Second Amendment, the Fund's gold holdings were equal to more than 150 million ounces or 4710 tons. It was decided to sell 50 million ounces. Accordingly, the Fund held 45 auctions from June 1976 to May 1980 amounting to 47 million ounces at gold prices prevailing in the London Market. The Fund's present gold holdings amount to 130 million ounces which can only be sold if a majority of 85 per cent in the Fund's financial transactions except that the Fund continues to value its holdings at SDR \$ 35 an ounce. According to Prof. Bernstein, "All that now remains of the historic monetary role of gold is its function as reserve asset."

9. SPECIAL DRAWING RIGHTS (SDRs)

MEANING

Special Drawing Rights (SDRs), also known as the *paper gold*, are a form of international reserves created by the IMF in 1969 to solve the problem of international liquidity. They are not paper notes or currency. They are international units of account in which the official accounts of the IMF are kept. They are allocated to the IMF members in proportion to their Fund quotas and are used to settle balance of payments deficits between them.

ORIGIN OF SDRs

SDRs were created through the First Amendment to the Fund Articles of Agreement in 1969 following persistent US deficits in balance of payments to solve the problem of international liquidity. Until December 1971, an SDR was linked to 0.88867 gram of gold and was equivalent to US \$1. With the breakdown of the fixed parity system after 1973 when the US dollar and other major currencies

were allowed to float, it was decided to stabilise the exchange value of the SDR. Accordingly, the value of the SDR was calculated each day on the basis of a basket of 16 most widely used currencies of the member countries of the Fund. Each country was given a weight in the basket in accordance with its importance in international trade and financial markets. After the Second Amendment to the Fund Articles of Agreement in 1978, the SDR became an international unit of account. To facilitate its valuation, the number of currencies in the “basket” were reduced to five in January 1981. They include the US dollars, the German Deutsche Mark, the British Pound, the French Franc and the Japanese Yen. The present currency composition and weighting pattern of the SDR is revised every five years beginning January 1, 1986. The revision of weights is based on both the values of the exports of goods and services and the balances of their currencies held by other members. In 1977, they were US dollar (39%), German DM (21%), UK pound and French franc (11% each) and Japanese yen (18%). The value of one SDR was equal to US \$ 1.35610 on October 1, 1997.

USES OF SDRs

SDR is an international unit of account which is held in the Fund’s Special Drawing Account. The quotas of all currencies in the Fund General Account are also valued in terms of the SDR. As the international monetary asset, the SDR is held in the international reserves of central banks and governments to finance their deficits or surpluses of balance of payments. All transactions by the Fund in the form of loans and their repayments, its liquid reserves, its capital, etc., are expressed in the SDR.

SDRs are used as a means of payment by Fund members to meet balance of payments deficits and their total reserve position with the Fund. They cannot be used for any other purpose. Thus SDRs act both as an international unit of account and a means of payment.

There are *three* principal uses of SDRs.

1. Transactions with Designation. Under it, Fund designates a participant in the SDR scheme who has a strong balance of payments and reserve position to provide currency in exchange for SDRs to another participant needing its currency. The currency to be exchanged for SDRs may belong to the designated participated or/and to other participants. Participants are allowed to accept SDRs in this way as long as their holdings are less than three times their total allocations.

2. Transactions with General Account. SDRs are used in all transactions with the General Account of the Fund. Participants pay charges in SDRs to the General Account for the use of the Fund resources and also to repurchase their own currency from it.

3. Transactions by Agreement. The Fund allows sales of SDRs for currency by agreement with another participant.

In order to further widen the uses of SDRs, the Second Amendment empowered the Fund to lay down uses of SDRs not otherwise specified. Accordingly, the following additional uses of SDRs are : (i) in swap arrangements, (ii) in forward operations, (iii) in loans, (iv) in the settlement of financial objections, (v) as security for the performance of financial obligations, and (vi) in donations or grants.

The Fund also empowers certain institutions as “other holder” of SDRs. Besides the World Bank and its associates, some of the other holders of SDRs are the Bank for International Settlements, the African Development Bank. These ‘other holders’ acquire and use SDRs in transactions and operations by agreement under the same terms and conditions as applicable to the participants. Efforts are being made by the Fund to have a greater use of the SDR as a unit of account in private transactions and in financial markets of the world.

The Fund pays interest on all holdings of SDRs kept in the Special Drawing Account and charges interest at the same rate on allocations to participants.

ALLOCATION OF SDRs

The Fund allocates SDRs to participants in proportion to their quotas for various uses mentioned above. Initially, the Fund created SDR \$ 9.3 billion over the three years 1970-72. The total holdings of SDR \$ 9.3 billion continued till 1978. In 1978, the Fund decided to raise them by SDR \$ 4 billion in each of the years 1979, 1980 and 1981. As a result, the total holdings of SDRs were SDR \$ 13.1 billion in 1979, SDR 17.3 \$ billion in 1980 and SDR \$ 21.4 billion in 1981. Since 1981 no further allocation of SDRs has been made by the Fund. The quantity of SDRs is determined by members of the Fund. It can only be increased if 85% votes of its members favour their increase. The basis of allocation of SDRs among the members of IMF is their quota subscriptions. At present, about 70% of SDRs are distributed to 26 rich countries and the remaining 30% to developing countries.

MERITS OF SDRs

Despite these weaknesses, the SDRs scheme possesses the following merits:

1. SDRs are a new form of international monetary reserves which have been created to free the international monetary system from its exclusive dependence on the US dollar.
2. They have rid the world of its dependence on the supply of gold and fluctuations in gold prices.
3. They cannot be demonetised like gold or become scarce when the demand for dollar increases in the world.
4. Unlike gold, SDRs are costless to produce because production of gold requires resources to mine, refine, transport and guard it.
5. SDRs have been created to improve international liquidity so as to correct fundamental disequilibria in balance of payments

of Fund members. Under this scheme, the participants receive SDRs under *transactions with designation and transaction by agreement* unconditionally.

6. Fund members are not required to change their domestic economic policies as they are expected under the Fund aid programmes.
7. The payment and repayment of SDRs out of the Special Drawing Account is easier and more flexible than under the Fund schemes.
8. Last but not the least, SDRs act both as a unit of account and a means of payment of international monetary system.

Criticisms of SDRs

Despite these merits, the SDR scheme has been criticised on the following grounds:

1. Inequitable Distribution. It is an inequitable scheme which has tended to make unfair distribution of international liquidity. The allocation of SDRs to participating countries is proportional to their quotas. In this sense, the allocation of SDRs to developing countries is too low as compared to their needs. Low allocation of SDRs reduces the borrowing capacity of such countries.

2. Not Linked with Development Finance. SDR scheme does not link the creation of international reserves in the form of SDRs with the need for development finance on the part of developing countries. The need for liquidity on the part of developing countries is great “because of their higher costs of adjustment, limited access to private banking and higher capital markets, greater variability of exchange earnings, and opportunity cost of holding foreign exchange reserves”. Under these circumstances, there is need to create more SDRs with fair distribution so that more unconditional liquidity is made available for the greater needs of developing countries.

3. High Interest Rate. The interest rate originally payable on net use of SDRs is 1.5 per cent. This has been gradually raised through time in order to make a more acceptable asset to hold. Now both users of SDRs pay and holders of SDRs receive, a market rate of interest based on interest rates prevailing in US, Britain, France, Germany and Japan which are quite high for developing countries.

4. Failure to Distribute Social Saving. Williamson and others have criticised the SDR scheme for its failure to distribute social saving of SDRs to the developing countries. The present rules for allocation distribute the social saving to a participant country in proportion to his contribution or its demand for SDRs. If the supply of SDRs equals the demand for it, there will be no redistribution of resources between countries. But this is not so in the case of developing countries whose holdings of SDRs are very low as compared to the 26 developed countries. Thus the present scheme of SDRs fails to transfer social savings to the developing countries.

5. Failure to meet International Liquidity Requirements. Unfortunately, due to the rigid attitude of the United States and some other developed countries, the Fund has not been able to resume allocation of SDRs from January 1982, despite the repeated pleas of the developing countries over these years. So the Fund has failed in its objective of increasing international liquidity through SDRs. Consequently, faced with a recession, an inadequate flow of concessional aid and falling prices of commodities and raw materials, developing countries have been facing severe balance of payments and debt problems. Thus SDRs have failed to solve the problem of international liquidity.

SOME SUGGESTIONS

To overcome the above noted problems, the following remedial measures have been suggested.

For distributing social saving of SDRs and linking SDRs with development assistance to developing countries, there should be link between development assistance and SDRs.

First, a regular expansion of SDRs is needed so that the quantum of international reserves increases.

Second, the system of allocation of SDRs should be so modified that more SDRs are allocated directly to the developing countries in excess of their long-run demand. This can be done in either of the two ways :

(a) by increasing their IMF quotas; or

(b) by allocating SDRs in excess of their Fund quotas.

EXERCISES

1. What were the main objectives behind the establishment of the IMF? How far the Fund has been successful in achieving these objectives?
2. Explain the objectives and functions of the IMF. Critically examine its achievements.
3. Discuss the role of gold in the scheme of the IMF.
4. Outline the objectives and functions of the IMF and explain the benefits which have flowed to India for being its member.
5. Discuss the nature and uses of Special Drawing Rights (SDRs) by the member countries of the IMF. Has their creation solved the problem of international liquidity?



THE WORLD BANK

The International Bank for Reconstruction and Development (IBRD) or the World Bank was established in 1945 under the Bretton Woods Agreement of 1944 to assist in bringing about a smooth transition from a war-time to peace-time economy. It is a sister institution of the International Monetary Fund.

1. FUNCTIONS

The IBRD, also called the World Bank, performs the following functions :

1. To assist in the reconstruction and development of territories of its members by facilitating the investment of capital for productive purpose, and the encouragement of the development of productive facilities and resources in less development countries.
2. To promote private foreign investment by means of guarantees on participation in loans and other investment made by private investors, and when capital is not available on reasonable terms, to supplement private investment by providing finance for productive purpose out of its own resources or from borrowed funds.

3. To promote the long-range balanced growth of international trade and the maintenance of equilibrium in the balance of payments of member countries by encouraging international investment for the development of their productive resources, thereby assisting in raising productivity, the standard of living and conditions of workers in their territories.
 4. To arrange the loans made or guaranteed by it in relation to international loans through other channels so that more useful and urgent small and large projects are dealt with first.
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2. MEMBERSHIP

The members of the International Monetary Fund are the members of the IBRD. It had 182 members in 2000. If a country resigns its membership, it is required to pay back all loans with interest on due dates. If the Bank incurs a financial loss in the years in which a member resigns, it is required to pay its share of the loss on demand.

3. ORGANISATION

Like the IMF, the IBRD has a three-tier structure with a President, Executive Directors and Board of Governors. The President of the World Bank Group (IBRD, IDA and IFC) is elected by the Bank's Executive Directors whose number is 21. Of these, 5 are appointed by the five largest shareholders of the World Bank. They are the US, UK, Germany, France and Japan. The remaining 16 are elected by the Board of Governors. There are also Alternate Directors. The first five belong to the same permanent member countries to which the Executive Directors belong. But the remaining Alternate Directors are elected from among the group of countries who cast their votes to choose the 16 Executive Directors belonging to their regions.

The President of the World Bank presides over the meetings of the Board of Executive Directors regularly once a month. The Executive Directors decide about policy within the framework of the Articles of Agreement. They consider and decide on the loan and credit proposal made by the President. They also present to the Board of Governors at its annual meetings audited accounts, an administrative budget, and the Annual Report on the operations and policies of the Bank. The President has a staff of more than 6,000 persons who carry on the working of the World Bank. He is assisted by a number of Senior Vice-Presidents and Directors of various departments and regions. The Board of Governors is the supreme body. Every member country appoints one Governor and an Alternate Governor for a period of five years. The voting power of each Governor is related to the financial contribution of its government.

4. CAPITAL STRUCTURE

The IBRD started with an authorised capital of \$ 10 billion divided into 1,00,000 shares of \$ 1,00,000. Of this, \$ 9,400 million was actually subscribed. On June 30, 1985 the authorised capital stock of the IBRD comprised 7,16,500 authorised shares of the par value of SDR 1,00,000 each. In July 1992, the total authorised Bank capital was \$ 184.1 billion with a capital increase of \$ 9.3 billion or 77,159 shares provided to the republics of the former Soviet Union.

5. FUNDING STRATEGY

The IBRD's funding strategy has the following four basic objectives :

The *first* is to ensure the *availability of funds* to the Bank. For this purpose, the IBRD seeks to maintain unutilised access to funds in the markets in which it borrows.

The *second* objective is to *minimise the effective cost* of those funds to its borrowers. This is done through the currency mix of its borrowings and the time of borrowings. In the former case, it tends to maximise borrowings in currencies with low nominal interest rates. The time of borrowings is manipulated in two ways : (a) when interest rates are expected to rise, the Bank seeks to increase its borrowings, and (b) when interest rates are expected to fall, it seeks to defer borrowings.

The *third* objective is to *control volatility in net income and overall loan charges*. For this purpose, the Bank started in July 1982 a pool-based variable lending rate system that uniformly adjusts interest charges applicable to the outstanding balance on all loans made under it. The existing loans were not affected by this lending system. When the majority of loans and borrowings are incorporated into the new lending rate system in future, the volatility of interest rates will be much reduced.

The *fourth* objective of the funding strategy is to provide an appropriate degree of *maturity transformation* between its borrowing and lending. Maturity transformation refers to the Bank's capacity to lend at longer maturities than it borrows. At the same time, it provides its borrowers with a modest degree of maturity transformation.

6. BANK BORROWINGS

The Bank borrows from the following sources :

The IBRD is a corporate institution whose capital is subscribed by its members. It finances its lending operations primarily from its own medium and long-term borrowings in the international capital markets, and currency swap agreements (CSA). Under the CSA proceeds of a borrowing country are converted into a different currency, and simultaneously, a forward exchange agreement is executed providing for a schedule of future exchanges of the two

currencies in order to recover the currency converted. The effect of currency swaps is to transform the cost of original borrowing to a cost which reflects the market yield of the currency obtained in the conversion.

The Bank also borrows under the Discount-Note Programme. *First*, it places bonds and notes directly with its member governments, government agencies and central banks. *Second*, it offers issues to investors and in the public markets through investing banking firms, merchant banks and commercial banks.

The IBRD has evolved two new borrowing instruments. *First*, Central Bank Facility (CBF) is a one-year, Us dollar dominated facility for borrowing from official sources, particularly central banks. It is designed to reverse the declining trend in the IBRD's borrowings from such sources since the 1970s. In 1984, the Executive Directors authorised the Bank to borrow under the Facility upto \$ 750 million with a one-year maturity plus funds maturity within a month under the Facility. *Second*, borrowings in Floating Rate Notes (FRNs) is meant to help the IBRD to meet some of the objectives of its funding strategy. The FRN market enables the Bank to gain access to a set of investors like commercial banks and certain other financial institutions which have not traditionally bought IBRD notes. The FRNs carry a medium/long-term maturity. A substantial amount of its resources also comes from its retained earnings and the flow of payments on its loans.

7. BANK LENDING ACTIVITIES

The Bank lends to member countries in any of the following ways :

- (i) by marketing or participating in loans out of its own funds;
- (ii) by making or participating in direct loans out of funds raised in the market of a member or otherwise borrowed by the Bank;
- (iii) by guaranteeing in whole or in part loans made by private investors through the usual investment channels.

The total amount outstanding of participating in loans, direct loans and guarantees should not exceed 100 per cent of its unimpaired subscribed capital, reserves and surplus. It guarantees, participates in or makes loans to its members on the following conditions :

- (i) If it is satisfied that in the prevailing market conditions the borrower would be unable to obtain the loan under conditions which in the opinion of the Bank are reasonable to the borrower.
- (ii) Loans are for specific projects of reconstruction or development, except in special circumstances.
- (iii) If the member in whose territory the project is located is not itself the borrower, the member or its central bank fully guarantees the repayment of the principal, the payment of interest and other charges on the loan.
- (iv) The project for which the loan is required has been recommended by a competent committee in the form of a written report after a carefully study of the proposal.
- (v) The borrower or the guarantor is in a position to meet its obligations under the loan.

In 1991, the Executive Board of the Bank approved modification in IBRD repayment terms which include shifting repayment of new loans for low income countries to annuity, extension of grace period through fiscal year 1991 on new loans to middle income countries from 3 to 5 years and review of repayment terms for middle income countries within 3 years.

Development credits carry a service charge of 0.75% and generally have 35-40 year final maturities with a 10-year grace period for principal payments.

The bank provides the following facilities to member countries :

Structural Adjustment Facility (SAF). Since 1985, the IBRD has introduced SAF to borrowing countries in order to reduce their balance of payments deficits while maintaining or regaining their economic growth. SAF funds are used to finance general imports with a few agreed exceptions such as luxury and military imports. SAFs are released in two parts and are based on stiffer conditions laid down by the Bank. The Bank aims at providing support to programmes running from 5 to 7 years through a series of up to five SAFs to a borrowing country.

Enhanced Structural Adjustment Facility (ESAF). In December 1987, the Bank has set up the ESAF to increase the availability of concessional resources to low-income member countries. It provides new concessional resources totalling SDR 6 billion which will be financed by special loans and contributions from developed and OPEC countries. Like the SAF, ESAF is meant to help the borrowing countries reduce their balance of payments deficits and encourage growth. Its financial terms are similar to the SAF. The interest rate is 0.5 per cent with repayments in ten semi-annual instalments beginning after 5½ years of disbursements.

The Bank makes medium and long-term loans unusually running up to the completion of the project. Loans generally have a grace period of 5 years and repayable over 20 years or less. The interest rate charged on loans by the Bank is calculated in accordance with a guideline related to its cost of borrowing. So loans are at variable interest rates. It charges an annual commitment charge of 0.75 per cent on undistributed balance and a one-time front-end on the amount of loan.

The Bank's lending operations for two decades since its inception were concentrated heavily upon capital infrastructural projects such as power generation and distribution, railway and roads, ports, telecommunications, major irrigation works, etc. Since the 1970s, loans for infrastructural investments have come down. Instead, it has begun to finance changes in the educational system in the developing countries, to establish institutions for the financing of

industrial investments and provision of technical assistance in the selection and appraisal of industrial projects, and to help in the preparation of agricultural projects. Its present development strategy lays more emphasis on investments that can directly affect the welfare of the poor people of the developing countries by increasing their productivity and standard of living. Towards this end, it has been financing projects for agriculture and rural development, education, family planning, nutrition, low-cost housing, drinking water and sewerage. The distribution of IBRD funds is made by the country-income group and by the sector to the developing countries.

Special Action Programme (SAP). The Special Action Programme (SAP) has been started in 1983 to strengthen the IBRD's ability to assist member countries in adjusting to the current economic environment. It has four major elements: (1) An expansion in lending for high-priority operations that support structural adjustment, policy changes, production for export, fuller use of existing capacity, and the maintenance of crucial infrastructure. (2) Accelerated disbursements under existing and new investment commitments to ensure timely implementation of high priority projects. (3) Expanded advisory services on the design and implementation of appropriate policies. These include reviews of state enterprises studies to strengthen development-orientation and project-implementation capabilities, studies to increase the mobilisation of domestic resources, reviews of incentives for export diversification, and exploration of ways to strengthen debt-management capabilities. (4) Enlisting familiar efforts by other donors for fast disbursing assistance in support of programmes of the Bank and IMF.

CONDITIONALITIES FOR LENDING

The World Bank conditionalities for lending are : (1) an unflinching commitment towards economic stability so as to reduce inflation and deficits; (2) an efficient regulatory mechanism ensuring transparent policies and depoliticised environment; (3) adequate risk management; (4) provision for long-term finance; and (5) increase in the share of the private sector in the country's GDP. In the Bank

meeting of 1996, the Bank President declared that countries plagued by corruption would not be liable to receive Bank assistance in future.

8. OTHER ACTIVITIES

The other activities of the IBRD include training, technical assistance, inter-organisational cooperation, economic research and studies, operations evaluation, and settlement of investment disputes of its members.

Training. The Bank set up a staff college in 1956, known as the Economic Development Institute (EDI) for training senior officials of the member developing countries. It helps them to improve the management of their economies and to increase the efficiency of their investment programmes. Its training material ranges from macro-economic planning, pricing, and development policies to the management of agricultural research, rural health care, industrial policy, energy policy, railway management, etc. The EDI also organizes seminars in Washington and in different regions of the world in cooperation with regional institutes.

Technical Assistance. Technical assistance has been an integral part of the Bank operation since its inception. It consists of two broad categories : (i) engineering-related, such as feasibility studies, engineering design, and construction supervision; and (ii) institution-related, such as diagnostic policy and institutional studies, management support and training. The primary way of providing technical assistance is through loans made for specific sectors and in components of loans made for capital infrastructures. Such technical assistance includes funds for supervision, implementation and engineering services, energy, power, transportation, water supply, industry, etc. To meet gaps in project preparation and for institution building, the bank advances funds to prospective buyers through Project Preparation Facility (PPF) created in 1975. The Bank also serves as executing agency for project financed by the United

Nations Development Programme (UNDP). Further, it provides such technical assistance as short-term training, appointment of advisers for technology service on evaluation and monitoring panels, and demographic, economic advice on project preparation.

Inter-Organisational Cooperation. The IBRD is also engaged in inter-organisational cooperation. Cooperation between the IBRD and other international organisations is based on formal agreements such as the Co-operative Programmes between it and the FAO, the UNESCO, the WHO, the GATT, the UNCTAD, the United Nations Environment Programmes (UNEP), the UNDP, the United Nations Industrial Development Organisation (UNIDO), the International Fund for Agricultural Development (IFAD), the ILO, the African Development Bank, the Asian Development Bank, etc.

Economic and Social Research. The Bank devotes roughly 3 per cent of its administrative budget to economic and social research. In 1983, the Bank established a Research Policy Council (RPC) to provide leadership in the guidance, co-ordination, and evaluation of all bank research. A Bank Research Advisory group has been set up to advise the RPC. A small and more technically oriented Research Projects Approval Committee has been created. Research activities are undertaken by the Bank's own research staff and also in collaboration with outside researchers. The results of completed research projects appear in articles in international economic journals, books, in World Bank Staff Working Papers, and its own journal, *Finance and Development*. It also publishes World Development Report every year. Research projects in progress are described in an annual publication, *World Bank Research Programme : Abstracts of Current Studies*. The Bank also helps strengthen indigenous research capacity in member developing countries.

Operations Evaluation. The Bank helps borrowers in the post-evaluation of their Bank assisted projects. It has set up the Operations Evaluation Department (OED) for this purpose. Projects reviewed are also subject to performance audit by the OED staff.

Members of borrowers' staff visit this Department for seeking help in the preparation of project completion report. The EDI also includes a course devoted to monitoring and evaluation by borrowers which is conducted by it in collaboration with EDI staff.

Settlement of Investment Disputes. The Bank has set up the International Centre of Settlement of Investment Disputes (ICSID) between States and Nationals of other States. All members of the Bank have signed and deposited their instrument of ratification pertaining to this. The Bank has successfully mediated in solving many international investment disputes such as the River Water Dispute between the India and Pakistan, and of the Suez Canal between Egypt and the UK.

CONCLUSION

The Bank's overall performance must be judged not just on its lending but on its success in providing advice and technical assistance. The Bank is laying greater emphasis on developing human resources such as education, population, health and nutrition, and on environment. The Bank also provides assistance to the private sector in such areas as financial, power, telecommunications, information technology, oil and gas, and industry and mining.

In the fiscal year 2000, the World Bank disbursements totalled \$ 18.5 billion.

9. CRITICAL APPRAISAL

The IBRD has been quite successful in achieving its principal objective of reconstruction and development. It helped in the reconstruction of Europe after its destruction in the Second World War. It has also been helping the developed and developing countries alike in the process of growth. Since the 1970s, it has been lending more to developing countries not only for infrastructural investment but also for raising the productivity and standard of living

of the poor people. Of the total IBRD loans of \$ 18.5 billion in the fiscal year 2000, member countries in Latin America and Caribbean received 22 per cent, in Europe and Central Asia 16 per cent, in East Asia and Pacific 16 per cent, in Africa 12 per cent, in South Asia 11 per cent and in Middle East and North Africa 5 per cent and in others 18 per cent. Still critics are not lacking in pointing out certain criticisms of its lending policies. Some of them are discussed as under:

1. High Interest Rate. It is argued that the bank charges a very high rate of interest on loans, as also an annual commitment charge on undistributed balances and a front-end fee. Recently the Bank has adopted a new procedure related to the cost of borrowing for calculating the interest rate and front-end fee. So they are no longer fixed arbitrarily at a high level. Still the interest rate continues to be high. It is 7.6 per cent now.

2. Less Aid to Developing Countries. The Bank has also been criticised for its failure to meet the financial needs of the developing countries fully. Its loans have just touched the fringes of the total capital requirements for their economic and social uplift. In order to increase the Bank funds to such countries, it established the International Development Association (IDA) in 1960. Despite this, the Bank has not been successful in raising the productivity and standard of living of their people. Its lending operations account for only a small proportion of the total net aid to developing countries. The poorest countries hardly receive 3.5 per cent of the total loans.

3. Faulty Lending Procedure. The Bank's lending procedure is faulty because it lays emphasis on the repaying capacity of the borrowing country before granting any loan. Such a condition is very harsh and discriminatory for developing countries which are poor and need financial help on a large scale. In fact, the repaying capacity of a poor country follows the utilisation of a loan. As the project is completed with the loan assistance, the repaying capacity of the borrower increases gradually.

4. Discriminatory. The Bank has been criticised for being discriminatory in its purpose-wise and region-wise assistance to its members. It is from the fiscal year 1990 that the lending policy of the Bank has been directed more towards the developing countries and for the development of agriculture and rural development, energy, transportation, communications, water supply, sewerage, human resources development, environment, etc.

5. Hard Conditionalities. The introduction of SAF and ESAF has made IBRD loans terms tighter. The borrowing country is required to follow an action programme set out in a letter of development policies such as open trade, reform in public budgeting and debt management, revision of price policies, better planning of public investment and management of public enterprises, etc. The second instalment of SAF is only released after a review of the reform programmes that are date-bound.

10. INDIA AND THE WORLD BANK

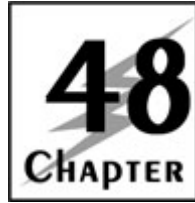
India is one of the founder members of the Bank and held a permanent seat on its Board of Executive Directors for a number of years. The Bank has been assisting India in its planned economic development by granting loans, conducting field surveys, rendering expert advice, sending missions, study teams, and training Indian personnel at the EDI. There is also a Chief of Mission of the Bank at New Delhi who represents it for monitoring and consultations on its aided projects in India. India has been the largest receiver of the World Bank assistance since August 1949. The Bank's disbursement to India during fiscal year 2000 amounted to \$ 1.8 billion. The total sanctioned loans received by India till June 2000 were \$ 11,071 million. Of these, outstanding loans stood at \$ 7,508 million. The World Bank has been assisting India in such projects as development of ports, oil exploration including the Bombay High and gas power projects, aircrafts, coal, iron, aluminium, fertilizers, railway modernisation, technical assistance, industrial development finance corporations, etc.

The Aid India Consortium of twelve developed countries which was giving aid to India for its development plans at the instance of the World Bank has been replaced by India Development Forum since 1995. The Bank also helped India to solve amicably its river water dispute with Pakistan.

India has, thus, gained much from being the member of the World Bank for the development of agriculture, industry, energy and transport. But with reduced availability from the IDA. India will have to borrow more from the Bank in future. This will entail a heavy burden on India's resources for the terms of world Bank loans are much harder than those of the IDA credits.

EXERCISES

1. Explain the functions and activities of the International Bank for Reconstruction and Development. How far has it been successful in achieving them?
2. Explain briefly the working of the World Bank. What contributions has it made for the economic development of India?



THE WORLD BANK GROUP

The World Bank has, at present, three affiliates : the International Development Association, the International Finance Corporation, and the Multilateral Investment Guarantee Agency. These are discussed below.

1. THE INTERNATIONAL DEVELOPMENT ASSOCIATION (IDA)

The International Development Association (IDA) is the “soft loan window” of the IBRD which was established in September 1960. It is an affiliate of the World Bank. The President of the World Bank is its head.

ITS OBJECTIVES

The main objectives of the IDA are two-fold.

1. To provide assistance for poverty alleviation to the world's poorest countries.
2. To provide concessional financial assistance and macroeconomic management services to the poorest countries so as to raise their standard of living. These relate to human resource development, including population control, development of health, nutrition and education for the overall objective of removing poverty.

ITS MEMBERSHIP

The membership of the IDA is open to all members of the World Bank. In June 2001, it had 182 members. If a country ceases to be a member of the World Bank, its membership of the IDA automatically ends. As per the Articles of Association of the IDA, its members are divided into two parts. In Part I are the developed countries which include among others Iceland, Japan, South Africa, the Russian Federation, Kuwait and UAE. It is known as G-24. Part II includes all the developing countries.

ITS ORGANISATION

The organisation of the IDA is that of the World Bank. With the exception of a few separate sections, the staff of the World Bank operates this Association. Right from the President, all the senior officers of the World Bank are its officers. Its Annual Report forms part of the World Bank Report and is submitted simultaneously.

ITS FINANCIAL RESOURCES

The resources of the IDA include the initial subscriptions from members, general replenishments from its more industrialised members, transfers from the net earnings of the World Bank, Special Funds contributions and adjustments and accumulated surpluses. The initial capital subscription from member countries at the time of its formation in 1960 was \$ 757 million. A Special Fund was created in October 1982 with contributions from member countries. But its major source of funds has been the IDA replenishments for a period of three years. The IDA had 32 donor countries who provided \$ 15.5 billion for the three-year IDA-9 which ended on June 30, 1993. The IDA-10 beginning July 1, 1993 had been fixed at \$ 18 billion. The IDA-11 replenishment beginning July 1, 1996 had been fixed at \$ 22 billion over the next three years. All contributions to capital subscription, replenishments and Special Fund are paid in convertible currencies by Part I member countries. The developing member countries of Part II make their contributions of 10 per cent in

convertible currencies or gold and 90 per cent in their own currencies.

IDA CREDITS

The IDA loans are known as “credits” which are made to governments only. At present, countries with per capita income of less than \$ 695 at 1990 prices can borrow from it. These are given for such projects for which no assistance is provided by the World Bank. Before approving a credit, the Special Committee of the IDA considers three criteria :

(a) Poverty Criterion. A country where population pressure is high and productivity is low, thereby leading to a low standard of living of the people.

(b) Performance Criterion. It relates to the past performance of the country in terms of loans received whether from the IDA or the World Bank. It must have been pursuing macroeconomic policies and executing projects satisfactorily.

(c) Project Criterion. The projects for which credits are to be utilised must yield financial and economic returns to justify them.

On the basis of these criteria, the IDA sanctions credits to LDCs for agriculture, education, health, nutrition, water supply, sewerage, etc. Such credits which are known as “soft loans”, are given on the following terms :

(i) They are repayable over a period of 35-40 years; (ii) they have a 10-year grace period; (iii) the commitment fee (interest rate) which was charged from 0 to 0.5 per cent has now been waived; and (iv) a small administrative fee of 0.75 per cent is charged on the disbursed amount.

The gross disbursements by the IDA during the fiscal year 2000 were \$ 6.8 billion.

INDIA AND IDA

Upto 1979-80, India had been the single largest beneficiary of the IDA assistance which was 40 per cent of the total credits committed to LDCs. With China becoming a member of the IDA in 1980, India's share in IDA's credits has been continuously on the decline. Between 1981-85, India received 30.5 per cent of the total assistance. From 1985 onwards, it has ranged between 15 to 20 per cent every year. During 2000, India received \$ 1.2 billion interest-free IDA loan for elementary education, health, nutrition, food safety, social safety programme, environment security and supervision, etc.

EVALUATION OF IDA'S WORKING

Since its inception in 1960 as the "soft window" of the World Bank, the IDA has been helping the poorest countries of the world in order to remove their poverty and raise their living standards. As a result of its assistance, the infant mortality rate in the LDCs, has been reduced to half of what it was earlier. The average life expectancy has increased by 13 per cent, and the adult literacy rate has risen to 60 per cent.

Despite these achievements, the IDA has not been able to render development assistance for the complete removal of poverty in LDCs due to lack of resources. The developed countries, especially the USA, have been the stumbling blocks in increasing the IDA replenishments. Consequently, the IDA assistance to the poorest countries had fallen from 100 per cent in 1988 to 85 per cent in 2000. According to a recent World Bank assessment, out of 350 IDA-supported projects in developing countries, only 59 per cent performed satisfactorily due to the efforts of governments of developing countries. Still, it has been successful in acting as a catalyst for their development.

2. THE INTERNATIONAL FINANCE CORPORATION (IFC)

The International Finance Corporation (IFC) is the private sector arm of the World Bank family which was established in July 1956. It is the major multilateral agency promoting productive private investment in developing countries. It helps finance private sector projects to mobilise finance for them in the international financial markets, and provides advice and technical assistance to business and governments.

ITS MEMBERSHIP

The Articles of Agreement of the IFC are similar to that of the World Bank. A country has to be a member of the World Bank in order to join the IFC. In June 2001, it had 182 members.

ITS FINANCIAL RESOURCES

In the beginning, the authorised capital of the IFC was \$ 100 million which was divided into 1,00,000 shares of \$ 1000 each. At present, its authorised capital is \$ 1300 million. The IFC can borrow from the World Bank four times its subscribed capital and surpluses. It can also borrow from the International money market.

ITS OBJECTIVES

The objectives for which the IFC was set up, have been laid down in Article 1 of its Article of Agreement as under :

“The purpose of the Corporation is to further economic development by encouraging the growth of productive private enterprise in member countries, particularly in the less development areas, thus supplementing the activities of the International Bank for Reconstruction and Development. In carrying out this purpose, the Corporation shall :

- (i) in association with private investors, assist in financing the establishment, improvement and expansion of productive private enterprise which would contribute to the development of its member countries by making investments, without

guarantee of repayment by the member Government concerned, in cases where sufficient private investment is not available on reasonable terms;

(ii) seek to bring together investment opportunities, domestic and foreign private capital, and experienced management; and

(iii) seek to stimulate, and to help create conditions conducive to the flow of private capital, domestic and foreign, into productive investment in member countries.”

ITS ORGANISATION

The IFC is an affiliate of the World Bank but it is separate from the World Bank, except for the fact that only a member of the World Bank can be its member. It has its own staff but draws upon the Bank for administrative services. Its organisational structure regarding the President, the Chairman, the Board of Governors, and Executive Directors is on the pattern of the World Bank. The World Bank President is the ex-officio Chairman of the Board of Directors of the IFC. But all the administrative powers of the IFC are vested in the Vice President of the IFC. The corporation has eight departments. Of these four relate to investment which function on geographical basis. The remaining four departments relate to capital markets, finance and management, legal matters, and engineering which operate on functional basis.

TYPES OF ASSISTANCE

The IFC renders assistance to a wide variety of sectors relating to large, medium and small industries which include financial services, mining, petro-chemicals, power, oil and gas exploration, telecommunications, tourism, general manufacturing and agro-based industries. The assistance to private enterprise in developing countries is in three ways : (i) by direct investment both in the form of loans and equity participation; (ii) by securing foreign and local capital; and (iii) by providing technical assistance.

(1) Direct Investment. It invests in partnership with private investors from the capital exporting country and/or from the country in which the enterprise is located. But its investments will not be more than half of the capital requirements of the enterprise. The minimum investment by the Corporation in an enterprise is \$ 1 million, but there is no upper limit. The enterprise seeking loans from the IFC should be industrial, located in a developing country, and should satisfy the criteria of both economic development and reasonable commercial return. The Corporations assistance is not tied to expenditure in any particular country, but must be spent in the member countries. It is used to buy machines and other equipment and to meet foreign exchange, local costs, working capital and any other legitimate business expenses. It does not seek or accept any type of government guarantee for making investments and repayments of loans, except when it is required by law in a country. Loans and risk capital are provided at commercial rates with maturity of 7 to 12 years.

(2) Foreign and Local Capital. The IFC participates in promoting productive private investment in developing countries by way of equity and/or loan investment. It underwrites equity capital and helps in sponsoring and bringing together investors for new enterprises. Thus it secures the co-operation of both foreign and local enterprises. It helps them in making feasibility studies of the proposed projects.

(3) Technical Assistance. The IFC provides project sponsors with the necessary technical assistance so that their enterprises are potentially productive and financially sound. For this purpose, it undertakes financial studies and analysis. It also provides policy assistance to member governments so that they may develop the necessary investment climate to attract foreign and local private enterprise.

(4) Capital Markets Development. The Corporation has a Capital Markets Department which provides specialised resources for studying the problems and needs of the financial markets of

developing countries. It provides financial support and advice for the development of financial institutions and helps in developing a legal, financial, and institutional framework which may encourage local and foreign capital in developing countries. The Corporation has been instrumental in the promotion of financial institutions, development finance companies, leasing and venture capital companies, mutual funds, etc. by giving technical assistance to developing countries.

(5) Help to Small Scale Industries. The IFC also renders help to small scale industries in the form of advice for the preparation of project reports and technical assistance. It has established four such facilities for developing countries of different regions. They are the South Pacific Project Facility, the Africa Project Development Facility, the Business Advisory Service for the Caribbean and Central America, and the Polish Business Advisory Service. It has also established the African Management Services Company which provides skilled and experienced managers to small enterprises in the African region to improve their working. The IFC has a Technical Advisory Service in its Engineering Wing which gives expert advice to government institutes and small enterprises in preparing market and feasibility studies, for technical restructuring and for strategic planning. For all these services it charges a nominal fee. Finally, as in the case of medium and large scale industries, the IFC helps the small scale sector in raising funds.

In the fiscal year ending June 30, 2000, the IFC approved \$ 2.6 billion in financing 264 projects in various sectors in 65 developing countries.

INDIA AND IFC

India is a founder member of the IFC. She has been receiving assistance in a variety of areas from the IFC since its inception. These include automobiles, shipping, electricity, cement, fertilisers, oil and gas, petro-chemicals, iron and steel, general manufacturing, and the financial sector. India is the second major client of IFC assistance. It has been giving about 10 per cent of total loans and equity to developing countries. The IFC invested \$ 48.1 million in

India, composed of loans of \$ 25.4 million and an equity of \$ 22.7 million, covering 11 projects which included the expansion of manufacturing facilities in computer diskettes, polyester and textiles, agribusiness exports. etc.

ITS EVALUATION

Over the year, the IFC has played a catalytic role in promoting productive private investment in developing countries by providing loans and equity capital, by rendering technical advice in the promotion of money and capital markets, by bringing local and foreign enterprises to co-operate in joint ventures, in starting new industrial projects in large, medium and small sectors. But its development assistance has gone more to developing countries and very little to the least developing economies.

3. THE MULTINATIONAL INVESTMENT GUARANTEE AGENCY (MIGA)

The multinational Investment Guarantee Agency (MIGA) is the newest affiliate of the World Bank family which was established in April 1988. It has been created to supplement the World Bank and the IFC to assist where the Bank and the IFC do not reach. It is joint venture with the International Finance Corporation. The MIGA has an authorised capital of \$ 1.08 billion.

ITS OBJECTIVES

The MIGA has the following objectives :

1. Its primary objective is to encourage the flow of direct foreign investment into developing member countries.
2. It provides insurance cover to investors against political risks.
3. The MIGA's guarantee programme protects investors against four types of non-commercial risks. They are : any danger

involved in currency transfer, expropriation, war and civil disturbance, and breach of contract by governments.

4. It insures only new investments, including the expansion of existing investments, privatisation and financial restructuring.
5. It provides promotional and advisory services to the governments of developing countries to enable them to increase the attractiveness of their investment climate.
6. Another objective of the MIGA is to establish credibility among investors, and higher credit rating among global banking and financial markets of its members.

ITS WORKING

In order to become a full-fledged member of the MIGA, a country has to ratify the convention and pay its capital subscription. By June 30, 2000, 160 countries had signed the MIGA convention. Of these, 136 countries had become its full-fledged members.

Before the investments are made, projects are to be registered with the MIGA. 90 per cent of the investment amount can be insured by the MIGA subject to a limit of \$ 50 million per project. Among its eligible investments are included equity loans made or guaranteed by equity holders, and certain other types of direct investments. It covers insurance for projects for fifteen years which may be extended to 20 years in exceptional cases. It also insures eligible investments in cooperation with national insurance agencies and private insurers. All projects insured by the MIGA have to support the environmental and development objectives of the World Bank.

The MIGA provides promotional and advisory services to its developing member countries to help them attract more foreign direct investments. These services include the organisation of investment-promotion conferences, executive development programmes, foreign-investment policy, round-table conferences, and specialised advisory assistance to governments of developing

member countries. It operates the Foreign Investment Advisory Service in Policy, institutional and legal matters relating to direct foreign investment. It also gives advice on such policies and programmes which promote backward linkages between foreign investors and local investors.

ITS PROGRESS

The MIGA had signed a total of 226 contracts of guarantee for investments in 52 developing countries and its outstanding contingent liabilities were \$ 2.8 billion in fiscal year 2000. It issued 68 investment guarantee contracts worth \$ 862 million and the amount of insured projects of foreign investment was \$ 8.4 billion. It assisted private firms from 17 different countries in making investments in 27 host countries. It launched and actively promoted “IPA-Net”—a global, Internet-based information in exchange, communications network and market-place—which facilitates the exchange of information among members of the international investment community. Thus MIGA’s guarantees serve as a catalyst for multinational investments.

INDIA AND MIGA

India became the 113th country when she signed the MIGA convention on April 13, 1992. By becoming a member of the MIGA, India has entered into a commitment to provide against non-commercial risks to direct foreign investments. With the on-going process of structural adjustments and liberalisation of the Indian economy, the insurance guarantee of the MIGA to direct foreign investments and the help rendered by its advisory services, are bound to benefit its programmes for industrial development.

EXERCISES

1. What are the objectives of the International Development Association? To what extent it has been successful in helping the developing countries?

2. Examine the working of the International Finance Corporation.
3. What is Multinational Investment Guarantee Agency (MIGA)?
Explain its objectives and working.



INTERNATIONAL LIQUIDITY

1. MEANING

International liquidity is defined as the aggregate stock of internally acceptable assets held by the central bank to settle a deficit in a country's balance of payments. In other words, international liquidity provides a measure of a country's ability to finance its deficit in balance of payments without resorting to adjustment measures. Shortage of liquidity hampers the expansion of global trade and its surplus leads to global inflationary pressures.

International liquidity is generally used as a synonym for international reserves. Such reserves include a country's official gold stock holdings, its convertible foreign currencies, SDRs, and its net reserve position in the IMF. Economists like Heller and McKinnon use a broader definition of international liquidity to include international borrowings, commercial credit operations, and the international financial structure in a country's reserves. This definition implies international availability of liquidity and the possibility of obtaining credit from financial institutions operating in international financial markets. Thus, in the broader sense, international liquidity includes private as well as official holdings of international liquidity assets.

In the literature on international liquidity distinction is made between owned and borrowed reserves, and between conditional and

unconditional reserves. Foreign exchange surplus, after meeting all current and capital account obligations of the country with the rest of the world, are “*owned*” reserves. Similarly, the official gold stock of a country constitutes its owned reserves. Capital imports in the form of borrowings from abroad and direct investments by foreign countries constitute *borrowed reserves*. Both owned and borrowed reserves are the source of international liquidity.

Unconditional international liquidity consists of a country’s official gold stock, holdings of its foreign currencies and SDRs, its net position in the IMF, and private holding of international assets. In all such cases, liquidity assets are available to the country without any conditions or restrictions on their use. But in the case of borrowed reserves, the lender country may impose conditions or restrictions on the use of liquid assets by the borrowing country. Many international financial institutions provide funds on conditional basis for specific projects and on specified repayment provisions. All these are cases of *conditional liquidity*. This is done to avoid the misuse of liquidity by the borrowing country.

2. PROBLEM OF INTERNATIONAL LIQUIDITY*

The (need or) problem of international liquidity arises because the demand for international liquidity is rising more than its supply, thereby implying shortage of international liquidity. The principal causes for the shortage of international liquidity are the following:

1. BOP Deficits. There have been increasing BOP deficits of the majority of countries in the world. In particular, after the opening of LDCs to world markets, these countries have been facing persistent BOP deficits. Too much dependence on exports has exposed these economies to international fluctuations in the demand for and prices of their products. They have become unstable due to international cyclical instability. On the other hand, their import requirements have been on the increase in order to develop. As a result, they are faced with foreign exchange constraints. This has necessitated larger

inflow of aid and foreign investment. Consequently, debt serving and interest on debt have risen and payments of dividends, profits and royalties on private direct foreign investment have grown, thereby leading to decline in the net inflow of foreign capital. All these have led to further shortage of foreign exchange reserves.

2. High Tariff Barriers. The exports of LDCs to developed countries have not been increasing, thereby adversely affecting their export earnings. One of the reasons for the non-expansion of their exports has been high tariff barriers imposed by the developed countries on their exports, especially by their regional groups like the EEC. At the same time, the LDCs are trying to cut down their essential imports from the developed countries by means of exchange controls, high tariffs, import quotas and similar protectionist devices in order to conserve foreign exchange. This has adversely affected their development process.

3. Attitude of Developed Countries. The majority of developed countries have surplus in their balance of payments. They are creditors of LDCs and do not take any interest in getting rid of their surplus so as to increase international liquidity.

4. Unequal Distribution of International Reserves. The distribution of international reserves is biased and favours the developed countries. It is primarily based on their quotas in the IMF. Whenever the IMF quotas are revised, the larger share goes to the developed countries. It is the developing countries whose need for international liquidity is far greater which suffer from its shortage.

3. MEASURES TO SOLVE THE PROBLEM OF INTERNATIONAL LIQUIDITY

The following measures have been suggested to solve the problem of international liquidity.

1. Promoting Export Expansion. Developing countries should reduce BOP deficit by promoting export expansion. The choice lies in concentrating the expansion of primary or secondary products or both. The expansion of secondary products requires import substitution for export expansion. These policies will earn them foreign exchange.

2. Limiting Exports. They should ban non-essential consumer goods, and limit imports of specific goods by selective tariffs, physical quotas, etc. This policy will enable them to conserve foreign exchange.

3. Changing Official Exchange Rate. A developing country can change its official exchange rate by devaluing its currency so that its export prices are lowered and import prices are increased. This will help in earning foreign exchange.

4. Restrictive Monetary-Fiscal Policies. By following restrictive monetary and fiscal policies, a developing country can reduce domestic demand for products which will lower import prices, reduce inflationary pressures and BOP deficit.

* This also refers to the causes of shortage of international liquidity.

5. Reduction in BOP Surplus. The majority of developed countries have BOP surplus which they should reduce by (a) accepting the national currencies of developing countries for payments; (b) removal of trade barriers to the products of developing countries; and (c) accepting products of developing countries in exchange for their products, as was done by the erstwhile USSR.

6. Expanding International Reserves. The IMF should expand international reserves by fresh allocation of larger quotas to member countries. In particular, all new issues of SDRs should be distributed to developing countries so that they may pay then to developed countries to solve their foreign exchange problem.

5. POSITION OF INTERNATIONAL RESERVES

The main features of international reserves or international liquidity have been :

1. Gold reserves of the countries of the world increased from \$ 33.9 billion in 1951 to SDR 224.1 billion in 1997.
2. Marked increase in the share of foreign exchange reserves from \$13.7 billion in 1951 to SDR 1078.2 billion in 1997.
3. Increase in reserve position in the IMF from \$ 1.7 billion in 1951 to SDR 36.2 billion in 1997.
4. Emergence of SDRs since 1972 which increased from SDR 8.7 billion to SDR 18.7 billion in 1997.

Thus the total international reserves comprising the above four items increased from \$ 49.3 billion to SDR 1357.2 billion in 1997.

No doubt, international reserves have been on the increase but they have not been rising as much as the increase in the volume and value of world trade. More so in the case of LDCs whose needs are greater and more urgent than that of developed countries.

6. IMF AND INTERNATIONAL LIQUIDITY*

There was no problem of international liquidity prior to 1970. This was because under the Bretton Woods Agreement the exchange rates of countries were fixed in terms of gold or the US dollar at \$ 35 per ounce of gold. Member countries were forbidden to impose restrictions on payments and trade, except for a transitional period. They were allowed to hold their monetary reserves partly gold and partly in dollars and sterling. These reserves were meant to incur temporary deficits by member countries while keeping their exchange rates stable. The IMF insisted on expenditure reducing policies and devaluation to correct deficit in balance of payments.

“Therefore, apart from ad hoc loans made by the IMF, the growth in liquidity needed to finance the expansion of world trade had to be found in the expansion of gold and the supply of dollar and sterling. But the physical supply of gold is virtually limited to the output of the mines in South Africa and the Soviet Union.” Since the dollar acted as a medium of exchange, a unit of account and a store of value of the IMF system, every country wanted to increase its reserves of dollar which led to dollar holdings to a greater extent than needed. Consequently, the US gold stock continued to decline and the US balance of payments continued to deteriorate. Robert Triffin warned in 1959 that the demand for world liquidity was growing faster than the supply because the incremental supply of gold was increasing little. Since the dollar was convertible into gold, the supply of US dollars would be inadequate in relation to the liquidity needs of countries. This might introduce trade barriers by countries in order to have balance of payments surpluses and build up reserves. Thus, according to Triffin, a growing liquidity shortage would generate strong contractionary forces that would threaten the expansion of the world economy and lead to a world recession of the 1931 type.

* This portion may be left out without loss in continuity.

A crisis of confidence had already erupted. The pound had been devalued in November 1967. There was no control over the world gold market with the appearance of a separate price in the open market. On 15 August, 1970, the United States suspended the conversion of dollars into gold and refused to intervene in the foreign exchange markets to maintain exchange rate stability. The ‘Group of Ten’ industrial countries met at the Smithsonian Institute in Washington in December 1971 and agreed to the realignment of major currencies by devaluing the dollar by 10 per cent and revaluing their currencies. The Smithsonian Agreement broke down following the US dollar devaluation of February 1973 again and in March 1973 a number of countries had floating exchange rates and the EEC countries had a “joint float” of their currencies. The Jamaica

Agreement of January 1976 formalised the regime of floating exchange rates. By the Second Amendment of the IMF Charter in 1978, the member countries are not expected to maintain and establish par values with gold or dollar. The Fund has no control over the exchange rate adjustment policies of the member countries. The system of flexible exchange rates has tended to reduce the need for more reserves.

7. ROLE OF THE IMF IN INCREASING WORLD LIQUIDITY

The IMF is an international monetary institution which is the principal source of supply of world liquidity to its 182 members. Over the years, it has adopted the following measures to increase international liquidity.

SDRs. In early 1970, it introduced a scheme for the creation and issue of Special Drawing Rights (SDRs) as unconditional reserve assets to influence the level of world reserves and to solve the problem of international liquidity. There are SDR 146 billion in the Fund's General Account. The Fund also creates SDRs and allocates them to members in proportion of their quotas. For this purpose, the Fund has established the Special Drawing Account. As the international monetary asset, SDRs are held in the international reserves of central banks and governments to finance improve international liquidity so as to correct fundamental disequilibria in the balance of payments of Fund members. The participants in the SDR scheme receive SDRs under "transactions with designation" and "transactions by agreement" unconditionally. The IMF acts as a clearing house in these transactions. Since 1981 there are 21.4 billion SDRs in the Fund.

Quotas. The bulk of Fund's financial resources comes from quota subscriptions of member countries. To meet the global demand for liquidity, it has been increasing quotas of members every four years under the General Review of Quotas. As a result, it increased the member quotas from 7.6 billion in 1947 to SDR 212 billion in 1998.

Selling Gold. It increases its funds by selling gold to members.

Borrowings. It borrows from governments, central banks or private institutions of industrialised countries, the Bank for International Settlements, and even from OPEC countries, like Saudi Arabia.

Reserve Tranche. The Fund has a variety of facilities for lending its resources to member countries. Lending by the Fund is linked to temporary assistance to member in financing disequilibrium in their balance of payments on current account. If a member has less currency with the Fund than its quota, the difference is called gold or reserve tranche. It can draw upto 25 per cent on its reserve tranche automatically upon representation to the Fund for its balance of payments needs. It is not charged any interest on such drawings, but is required to repay within a period of three to five years.

Credit Tranche. A member can draw further from balance quota in 4 instal-ments upon 100 per cent of its quota from credit tranche annually. Drawings from credit tranche are conditional because the members have to satisfy the Fund of adopting a viable programme to ensure financial stability. To meet the severe balance of payments problems, the Fund has been gradually raising the limit of borrowings by its members over the years under the credit tranche. Now members can draw upto the equivalent of 300 per cent of their new quotas on the total net use of the Fund's resources. The limits exclude drawings from CCFF, BSAF, SAF, STF and ESAF. The purchases are made under *stand-by arrangements* rather than directly.

New Credit Facilities. Since the 1960s, the Fund has created several new credit facilities for its members. Loans from these facilities are separate from tranches and are available for a longer period. These are : BSFF (Buffer Stock Financing Facility), EFF (Extended Fund Facility), SFF (Supplementary Financing Facility), SAF (Structural Adjustment Facility), ESAF (Enhanced Structural Adjustment Facility), CCFF (Compensatory and Contingency Financing Facility), STF (Systematic Transformation Facility), ESAL (Emergency Structural Adjustment Loans) and CCL (Contingency

Credit Line).¹ These facilities provide for members annual access to Fund resources up to 150% of their quotas or up to 450% over a three year period.

IDA Replenishments. Another important source for increasing world liquidity is the IDA Replenishments to the poor developing countries for three years by the developing countries. In recent years, IDA-9 Replenishment gave \$ 15.55 billion in 1990, IDA-10 gave \$ 18 billion in 1993, and IDA-11 gave 22 billion in 1996 for three years.

Its Criticisms

The various Fund schemes for increasing global liquidity have been criticised for favouring the developed countries. They are inequitable which have tended to mark unfair distribution of international liquidity. For instance, the allocation of SDRs to participating countries is proportional to their quotas. In this sense, the allocation of SDRs to developing countries is too low as compared to their needs. Low allocation of SDRs reduces the borrowing capacity of such countries.

Moreover, the SDR scheme does not link the creation of international reserves in the form of SDRs with the need for development finance on the part of developing countries. The need for liquidity on the part of developing country is great. Therefore, there is need to create more SDRs with fair distribution so that more unconditional liquidity is made available for the greater needs of developing countries.

Unfortunately, due to the rigid attitude of the United States and some other developed countries, the Fund has not been able to resume allocation of SDRs from January 1982, despite the repeated pleas of the developing countries over these years. So the Fund has failed in its objective of increasing international liquidity through SDRs. Consequently, faced with a recession, an inadequate flow of concessional aid and falling prices of commodities and raw materials, developing countries have been facing severe balance of payments and debt problems. To solve this problem, there is urgent need for fresh allocation of SDRs which should be distributed only to developing countries.

EXERCISES

1. What is meant by international liquidity? Comment upon the efforts made by the International Monetary Fund to solve this problem.
2. Write an essay on the problems and solution of international liquidity.
3. What do you mean by international liquidity? Discuss the causes and measures adopted to solve this problem.

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1. For details refer to the chapter on IMF. Students may give only abbreviated names.



THE INTERNATIONAL DEBT PROBLEM

1. INTRODUCTION

The problem of external debt of LDCs is a serious one because they depend heavily on inflows of capital from abroad to finance their development needs. LDCs being poor countries, their rates of domestic savings and investment are low. They woefully lack in economic and social overhead capital and basic and key industries. To accelerate the rate of economic development, they borrow to import capital goods, components, raw materials, technical know-how, etc. Besides, they also borrow to finance consumer goods to meet the requirements of the growing population. Their exports being limited to a few primary products, they borrow to supplement and increase their domestic resources. These lead to huge current account balance of payments (BOP) deficits. A current account BOP deficit means that the country is borrowing from abroad. To finance its BOP deficit, the LDC borrows by selling bonds abroad, from commercial banks abroad, from international financial institutions like the IMF, World Bank, IFC, etc., and from private foreign firms. In all such cases, the country accumulates external debt which it has to repay abroad in the future in the form of interest and principal.

2. THE DEBT CRISIS

The oil shocks of the 1970s and the reactions of the developed countries to them led to a major debt crisis in LDCs. To repay these debts in the form of interest and capital caused serious problems in such economies. The problem had become very severe by the early 1980s which led to increase in debt-service payments from \$ 18 billion in 1973 to \$ 140 billion in 1990. Consequently, many LDCs found it difficult to service their debts and it was feared they would default on payment thereby leading to an international crisis.

CAUSES OF THE DEBT CRISIS

The following have been the causes of the international debt crisis:

1. Oil-Price Shocks. The principal cause of the international debt crisis of the 1970s and 1980s was the increase in oil prices in 1973 and 1979. The first oil shock to the international economy was an increase in oil prices by more than four-fold and the second doubled them. This caused a large increase in the import bills of non-oil producing LDCs. Simultaneously, their export earnings fell due the recession in the developed countries. Consequently, the current account BOP deficit of oil importing LDCs increased much. Their ratio of debt to GNP rose from 15.4% in 1974 to 37.6% in 1986.

2. Bad Macro-economic Management. To cope with the problem of BOP deficit, the LDCs began macro-economic management of their economies. They continued to expand their expenditures to meet demand for their economic development. This led them to adopt expansionary fiscal and monetary measures and to large borrowings from abroad. This resulted in inflation and external debt. As the Bretton Woods System of fixed exchange rates had collapsed in 1973, the LDCs adopted new exchange rate strategies like the crawling peg and managed floating in order to avoid *real* appreciation of their currencies in the face of rising inflation. They aimed at a declining rate of depreciation against the dollar. For this, they adopted trade reform measures to boost exports, and encouraged the inflow of private capital through international banks. These further increased their external debt.

3. Policies of Developed Countries and their Banks. The policies adopted by the developed countries and their banks were instrumental in creating the debt crisis. The rise in oil prices had increased the revenues of oil exporting countries. But they were unable to absorb them within their economies. They deposited large volumes of “petro-dollars” in the commercial banks of the developed countries. Thus these banks had accumulated huge funds which could not be used by the developed countries, as the latter were faced with recession. But the LDCs needed funds for their economic development programmes which these banks “recycled” in the form of loans to LDCs.

4. Rising Interest Rates. The increase in interest rates also added to the debt crisis. During the first oil-price hike, the real interest rates were low and even negative in the developed countries due to inflation. This reduced the real burden of the debt of LDCs. But the second oil shock increased both money and real interest rates between 1979-82. The rise in oil prices led to inflation in the developed countries which adopted restrictive monetary policies to control inflation. This resulted in a sharp increase in money and real interest rates. Consequently, the costs of servicing the past debts and of new debts increased for LDCs. The costs of debt service was made worse by the growing proportion of debt at variable interest rates in the form of loans from commercial banks belonging to developed countries. For instance, the ratio of debt service to exports of all developing countries increased from 13.2% in 1980 to 25.9% in 1986.

5. Trade Policies. Trade related policies of both LDCs and developed countries also led to the growth of external debt of LDCs. The LDCs followed the inward-oriented import-substitution industrialisation till the 1970s. This policy brought initial gains but ultimately led to inefficiencies in the production of manufactured goods. Agricultural and primary production activities were neglected. The two oil-price hikes which led to recessions in the developed countries and the increase in non-tariff restrictions by the latter led to reduction in exports and export prices of LDCs. During 1981-86, they

suffered an annual average loss of \$ 8 billion due to reduction in their export earnings. With the fall in the prices of their primary commodities, the terms of trade of LDCs also deteriorated. The cumulative loss suffered due to this by them was \$ 95 billion during this period.

6. Immediate Cause. After 1979, many LDCs had accumulated huge external debts which they found it difficult to repay in the form of interest and principal. This led to the international debt crisis of the 1980s. The crisis emerged in August 1982 when the Mexican Central Bank announced that it had run out of foreign exchange reserves and that it could not pay its foreign debt of \$ 80 billion. Fearing that Argentina, Brazil and Chile might not follow Mexico, the lender-banks of developed countries started refusing new loans and demanded repayments of earlier loans from these and other Latin American countries. This trend spread to African and some East Asian LDCs. By the end of 1986 more than 40 countries were engulfed by the debt crisis.

3. MEASURE TO SOLVE THE DEBT CRISIS

LDCs have been receiving loans from the official world agencies like the IMF and World Bank, from banks and from individual countries on bilateral basis. Therefore, there cannot be any clear-cut solution to their debt repayment problems. It has to be on a piece-meal and case-by-case basis. Further, these need to be reinforced by domestic monetary and fiscal measures to solve it. We discuss below the various measures that have been suggested and adopted from time to time.

TWIN-TRACK IMF STRATEGY

The IMF feared that any default by LDCs to repay the debt would threaten the stability of the international bank system in the wake of Mexico's refusal to honour its debt obligations in August 1982. It, therefore, suggested a twin-track strategy so that the LDCs could

repay their loans in full. According to this strategy, it would continue to give direct financial assistance to provide time to grow out of their debt problems; and *second*, to encourage structural adjustment programmes in them to increase their debt service capacity in the long-run.

Since the Fund had about \$ 120 billion available as per the quota subscriptions of the smallest LDCs, it sought the assistance of the international commercial banks to solve the debt crisis of the large LDCs. We explain these attempts as under :

DEBT RESCHEDULING BY COMMERCIAL BANKS

When Mexico and other Latin American countries expressed their inability to service their debts, the international commercial banks devised ways to avert the Banking crisis. The creditor banks formed a Bank Advisory Committee (BAC), known as the London Club, to reschedule debts on case-by-case basis with individual debtor countries. It negotiates an agreement with a debtor country which involves rescheduling the debt for repayment within a number of months or years depending upon the capacity to repay and the size of the loan. But rescheduling depends upon the structural adjustment programme under the IMF's supervision.

In the beginning of 1983, the rescheduling of debt service was for a short period up to two years. This was called the *short-leash* approach which required repeated rescheduling of debts. So in 1984 Multi-Year Restructuring Agreements (MYRAs) were introduced which involved rescheduling of debts for longer periods up to 14 years.

This strategy of the IMF appeared to be successful throughout 1983 and 1984. But this forced or involuntary lending by the banks led to overdue payments to the outstanding debts of LDCs. These further weakened the balance sheets of the banks. So they started reducing their involuntary lending to LDCs.

The Baker Plan. To overcome this problem, the then US Treasury Secretary, James Baker proposed a scheme, known as the *Baker Plan* in October 1985 based on the Fund's twin-track approach. It provided for \$ 20 billion of new loans by banks over 3 to 15 years and \$ 9 billion of multilateral lending to the fifteen most heavily indebted LDCs. In return, these countries were to undertake growth-oriented structural adjustment programmes. But this Plan failed to meet the debt rescheduling requirements of these countries. Banks were reluctant to lend more to reduce their debts which were bound to increase further. They could judge the inability of these countries to repay even in the long-run. So additional loans fell much below the target of \$ 20 billion. The debtor countries on their part found the IMF adjustment programmes difficult and painful in carrying out and abandoned them. So Baker Plan failed to solve their debt problem.

The Brady Plan. In 1989, the new US Treasury Secretary Nicholas Brady proposed measures for *debt reduction* of LDCs. There were three main elements of the Brady Plan : *First*, it asked the IMF and World Bank to provide funds to debtor countries for repaying debts to banks. But the debtor countries were to carry out growth oriented adjustment programmes laid down by the Fund and World Bank. *Second*, it urged banks to accept repayment of less than the full amount of the debt so as to include debt service reductions and debt forgiveness. *Third*, it called on the governments of developed countries to amend their banking legislations to provide for debt forgiveness in their bank accounting rules. The Brady Plan has been successful to some extent. Such agreements have been negotiated between banks and debtor countries to buy back their debts at a discount rate ranging between 44 and 84 per cent. The largest agreement has been with Mexico involving \$ 49 billion of debt which was rescheduled.

Debt Swaps. Another solution to the debt problem of LDCs has been to exchange the debt by what is known as "debt swaps". Many banks have entered into agreements with debtor countries to reduce the burden of debt repayments through a number of options such as debt-for-debt swaps, debt-for-equity swaps, debt-for-cash swaps,

debt-for-nature swaps, debt-for-development swaps, debt-for-export swaps and debt-to-local-debt swaps (*i.e.* external debt converted into local currency). Between 1985-92, debt swaps of various types amounting to \$ 90 billion were agreed upon between banks and debt countries.

Rescheduling of Official Loans. The developed lender countries, which give loans to LDCs are called the *Paris Club*. The Paris Club decides about the rescheduling of official loans, lays down their dates and time of repayment in consultation with the IMF. The LDC debtor countries approached the Paris Club for rescheduling the loans provided by its members many times between 1982 and 1987.

In 1982, emergency financing was made available through the Bank for International Settlements (BIS). In January 1982, the IMF established an emergency fund under the General Agreement to Borrow (GAB) amounting to SDR \$ 17 billion.

Toronto Terms. At the 1988 Toronto Economic Summit of the Paris Club, it was decided to give debt relief to the poorest debtor countries with GNP per capita income of less than \$ 600. Under the Toronto Terms, the concessional debt (with low interest rate) could be repaid over 25 years with 14 years' grace. For non-concessional debt, there were three options : (1) Repayment in 25 years with 14 years' grace at market interest rates; (2) repayment in 14 years with 8 years' grace at concessional interest rates; and (3) repayment in 14 years with 8 years' grace at market interest rates and simultaneously cancelling 1/3rd of debt.

The Houston Terms. The Paris Club introduced the Houston Terms in 1990 for the lower-middle-income debtor countries. Their repayment of debts was spread over 20 years with 10 years' grace at market interest rates.

Enhanced Toronto Terms. In 1991, the Paris Club amended the Toronto Terms for the severely indebted low-income countries. It offered the alternative of cancelling 50 per cent of a country's debt and rescheduling the remaining over 23 years with 6 years' grace or

rescheduling it at concessional interest rates where the debt-service ratio exceeded 25 per cent. Eighteen countries of Africa and two of Latin America had taken advantage of the Toronto Terms in rescheduling their debts by the 1991.

In addition to the Toronto and Houston Terms, a number of creditor countries have been cancelling debts of their own.

CONCLUSION

The various proposals for debt rescheduling discussed above have not been very successful because they are dependent upon the private international banks to carry them out. The majority of them are unwilling to take such measures which may adversely affect their balance sheets. These proposals do not solve the debt problem of LDCs permanently but for a short period with the result that it will again reappear.

LONG-TERM SUGGESTIONS

To solve the debt problem of LDCs over the long-run, there is need for concerted efforts on triple fronts. On the part of : (a) the IMF, (b) the developed countries, and (c) the LDCs. We discuss them as under :

(a) IMF Solutions. The IMF insists on the debtor LDCs to adopt market-oriented adjustment programmes for availing financial help from it. These include: (1) Tight monetary and fiscal policies so as to reduce budget deficits, through cut in government spending, reduction in interest rates and in inflation; (2) encouraging foreign investment by abolishing controls both internal and external and giving greater incentives to foreigners; and (3) devaluing the currency to encourage more exports and greater competition through a more open trade policy.

But the adoption of such policies by LDCs has brought about the Asian Crisis. It has led to more unemployment and poverty and reduced their growth rates. There has been capital flight and

worsening of their BOP problem. Instead of reduction in their debts, they have increased them. These measures have led to public riots and even to the fall of governments in many Asian and Latin American countries.

(b) Measures by Developed Countries. Since the developed countries are the creditors of LDCs, *First*, they should provide development assistance to the poor LDCs as grants rather than loans. *Second*, they should waive a major portion of their debts to LDCs. *Third*, they should establish a fund which should provide guarantee to private loans by corporations and banks of developed countries in case of default. *Fourth*, a large portion of the debt of LDCs is due to fall in their export prices and hence in their terms of trade. The developed countries should adopt appropriate measures to overcome price fluctuations in their primary products through the creation of international buffer stocks, commodity agreements, compensatory financing, etc.

The above noted measures will go a long way in solving the debt problem of LDCs.

(c) Measures by the Debtor LDCs. LDCs, on their part, should adopt the following measures which may help in reducing their debts; (1) to strengthen and develop infrastructural facilities so as to encourage foreign investment; (2) to reduce imports through trade restrictions within the provisions of the WTO; (3) to produce more quality products for domestic consumption as well as for exports of all kinds. Greater diversification in quality products for domestic use and exports is essential to face foreign competition both in domestic and global markets; and (4) Monetary and fiscal policies should be in keeping with the overall objective of growth with stability so that the country becomes self-sufficient and there is little need for external debt.

EXERCISES

1. What have been the causes of external debt of developing countries ? Discuss the measures that have been adopted to solve this problem.
2. Explain the debt problem of developing countries. Suggest measures to solve it in the light of the efforts made by the developed countries.



INTERNATIONAL MONETARY SYSTEM

1. MEANING

International monetary system refers to the system prevailing in world foreign exchange markets through which international trade and capital movements are financed and exchange rates are determined. We discuss below the international monetary system since the end of the World War II.

2. THE BRETTON WOODS SYSTEM

During the period preceding World War I almost all the major national currencies were on a system of fixed exchange rates under the international gold standard. This system had to be abandoned during World War I. There were fluctuating exchange rates from the end of the War to 1925. Efforts were made to return to the gold standard from 1925. But it collapsed with the coming of the Great Depression. Many countries resorted to protectionism and competitive devaluations—with the result that world trade was reduced to almost half. But depression completely disappeared during World War II.

In July 1944, the allied countries met at Bretton Woods in the USA to avoid the rigidity of the gold standard and the chaos of the 1930s in international trade and finance and to encourage free trade. The new

system was the present International Monetary Fund (IMF) which worked out an *adjustable peg system*.

Under the Bretton Woods system exchange rates between countries were set or pegged in terms of gold or the US dollar at \$ 35 per ounce of gold. This related to a fixed exchange rate regime with changes in the exchange within a band or range from 1 per cent above to 1 per cent below the par value. But these adjustments were not available to US which had to maintain the gold value of dollar. If the exchange rate hit either of the bands, the monetary authorities were obliged to buy or sell dollars against their currencies. Large adjustments could be made where there were “fundamental disequilibrium” (i.e. persistent and large deficits or surpluses) in BOP with the approval of the IMF and other countries. Member countries were forbidden to impose restrictions on payments and trade, except for a transitional period. They were allowed to hold foreign reserves partly in gold and partly in dollars. These reserves were meant to incur temporary deficits or surpluses by member countries, while keeping their exchange rates stable. In case of a BOP deficit, there was a *reserve outflow* by selling dollar and *reserve inflow* in case of a BOP surplus.

Reserve outflows were a matter of concern under the Bretton Woods system. So the IMF insisted on expenditure reducing policies and devaluation to correct BOP deficit. Temporary BOP deficits were also met by borrowing from the Fund for a period of 3 to 5 years. A country could borrow from the Fund on the basis of the size of its quota with it. The loans made by the IMF were in convertible currencies.

The first 25 per cent of its quota was in *gold tranche* which was automatic and the remaining under the *credit tranches* which carried high interest rates. To provide long-term loans the World Bank (or IBRD) was set up in 1946 and subsequently its two affiliates, the International Finance Corporation (IFC) in 1956 and International Development Association (IDA), in 1960. For the removal of trade restrictions, the *General Agreement on Tariffs and Trade* (GATT)

came into force from January 1948. To supplement its resources, the Fund started borrowing from the ten industrialised countries in order to meet the requirements of the international monetary system under General Agreements to Borrow (GAB) from October 1962. Further, it created special Drawing Rights (SDRs) in January 1970 to supplement international reserves to meet the liquidity requirements of its members. The Bretton Woods system worked smoothly from 1950s to mid 1960s. During this period world output increased and with the reduction of tariffs under the GATT, world trade also rose.

3. THE BREAKDOWN OF THE BRETTON WOODS SYSTEM

The following are the principal causes and sequences of the breakdown of the Bretton Woods system.

1. Built-in Instability. The Bretton Woods System had a built-in instability that ultimately led to its breakdown. It was an adjustable peg system within plus or minus 1 per cent of the par value of \$ 35. In case of fundamental disequilibrium, a country could devalue its currency with the approval of the IMF. But countries were reluctant to devalue their currencies because they had to export more goods in order to pay for dearer imports from other countries. This led countries to rely on deflation in order to cure BOP deficits through expenditure-reducing monetary-fiscal policies. The UK often resorted to deflation such as in 1949, 1957 and 1967.

2. The Triffin Dilemma. Since the dollar acted as a medium of exchange, a unit of account and a store of value of the IMF system, every country wanted to increase its reserves of dollar which led to dollar holdings to a greater extent than needed. Consequently, the US gold stock continued to decline and the US balance of payments continued to deteriorate. Robert Triffin warned in 1960 that the demand for world liquidity was growing faster than the supply because the incremental supply of gold was increasing little. Since the dollar was convertible into gold, the supply of US dollars would be inadequate in relation to the liquidity needs of countries. This

would force the US to abandon its commitment to convert dollars into gold. This is the Triffin Dilemma which actually led to the collapse of the Bretton Woods System in August 1971.

3. Lack of International Liquidity. There was a growing lack of international liquidity due to increasing demand for the dollar in world monetary markets. With the expansion of world trade, BOP deficits (and surpluses) of countries increased. This necessitated the supply of gold and of the dollar. But the production of gold in Africa was increasing very little. This led to larger demand and holdings of the dollar. Countries also wanted to have more dollar holdings because they earned interest. As the supply of dollars was inadequate in relation to the liquidity needs of countries, the US printed more dollars to pay for its deficits which other countries accepted as reserves.

4. Mistakes in US Policies. The BOP deficits of the US became steadily worse in the 1960s. To overcome them, the policies adopted by the US government ultimately led to the world crises. Rising US government expenditure in the Vietnam War, the financing of US space programme and the establishment of the “Great Society” (social welfare) programme in the 1960s led to large outflow of dollar from the US. But the US monetary authority (FED) did not devalue the dollar. Rather, it adopted monetary and fiscal measures to cut its BOP deficit.

5. Destabilising Speculation. Since countries with “fundamental disequilibrium” in BOP were reluctant to devalue their currencies and also took time to get the approval of the IMF, it provided speculators an opportunity to resort to speculation in dollars. When devaluations were actually made, there were large doses of devaluation than originally anticipated. This was due to destabilising speculation which made controls over capital flows even through monetary-fiscal measures ineffective. This was the immediate reason for the UK to devalue the pound in 1967.

6. Crisis of Confidence and Collapse. The immediate cause of the collapse of the Bretton Woods System was the eruption of a crisis of

confidence in the US dollar. The pound had been devalued in November 1967. There was no control over the world gold market with the appearance of a separate price in the open market. The immediate cause for the collapse of the Bretton Woods System was the rumour in March 1971 that the US would devalue the dollar. This led to a huge outflow of capital from the US. On 15 August 1971, the US suspended the conversion of dollars into gold when some small European central banks wanted to convert their dollar reserves into gold at the US. It refused to intervene in the foreign exchange markets to maintain exchange rate stability and imposed a 10% import surcharge. Thus the main cause of breakdown of the Bretton Woods System was the problems of liquidity, adjustment and confidence. The increase in liquidity (international reserves) was in the form of dollars arising from BOP deficits of the US. But as the US was unable to adjust its deficits and excessive dollars accumulated in foreign countries, there was a *crisis of confidence* in the dollar and the Bretton Woods System broke down.

Between 15 August 1971 and the Smithsonian Agreement of 18 December 1971, 48 countries including the United States, Japan and a large number of European countries abandoned fixed exchange rates. The 'Group of Ten' industrial countries met at the Smithsonian Institution in Washington on 18-19 December, 1971 and agreed to a new system of stable exchange rate with *wider bands*. As a first step towards realignment of major currencies, the US, devalued the dollar by 8 per cent, the Japanese revalued the yen by 17 per cent and the Germans their mark by 14 per cent. *The Smithsonian Agreement* widened the margin of fluctuations of the exchange rates to 2.25 per cent above or below the new parities of central rates. It officially devalued the dollar against gold from \$ 35 to \$ 38 per ounce. In 1973, the band was widened to 4.5 per cent. The Smithsonian Agreement broke down following the devaluation of the US dollar by 10% in February, 1973.

Another development took place in Europe when the EEC countries decided to limit the fluctuation of their currencies relative to each other to a smaller band. This came to be known as "*the snake in the*

tunnel". Under this arrangement, the EEC currencies were tied together and could fluctuate within narrow limits in relation to one another but could fluctuate in relation to other currencies within the limits set by the band proposals.

4. THE PRESENT INTERNATIONAL MONETARY SYSTEM

At the beginning of March 1973 India, Canada, Japan, Switzerland, the UK and several smaller countries had floating exchange rates. However, the "*joint float*" of the EEC countries continued even after March 1973 and was now called the "*snake in the lake*", as there was no band within which the EEC currencies could fluctuate relative to other currencies. In March, 1979 the European Monetary System (EMS) was formed which created the European Currency Unit (ECU) which is a "basket" currency of a unit of account consisting of the major European currencies. The EMS limits the internal exchange rate movement of the member countries to not more than 2.25 per cent from the "central rates" with the exception of Italy whose lira can fluctuate up to 6 per cent.

In the meantime, the *Jamaica Agreement* of January 1976 (ratified in April 1978) formalised the regime of floating exchange rates under the auspices of the IMF. A number of factors forced the majority of member countries of the IMF to float their currencies. There were large short-term capital movements and central banks failed to stop speculation in currencies during the regime of adjustable pegs. The oil crisis in 1973 and the increase in oil prices in 1974 led to the great recession of 1974-75 in the industrial countries of the world. As a result "the dollar went into a rapid decline, which, by late 1978, had such alarming proportions that the United States government finally decided on a policy of massive intervention in order to prevent a further fall in the value of the dollar". At last, the system of managed floating exchange rates had come to stay by 1978. By the *Second Amendment of the IMF Charter* in 1978, the member countries are not expected to maintain and establish par values with gold or dollar. The Fund has no control over the exchange rate adjustment policies

of the member countries. But it exercises international “surveillance” of exchange rate policies of its members.

The Second Amendment has reduced the position of gold in the global monetary system in the following ways by : (a) abolishing the official price of gold; (b) delinking it with the dollar in exchange arrangements; (c) eliminating the obligations of the Fund and its members to transfer or receive gold; and (d) selling a part of Fund’s gold holdings.

The Second Amendment has also made SDRs as the chief reserve assets of the global monetary system whose value is expressed in currencies and not gold. It is now a unit of account, a currency peg and medium of transactions.

The present international monetary system of floating exchange rates is not one of free flexible exchange rates but of “managed floating”. It has rarely operated without government intervention. Periodic intervention by governments has led the system to be called a “managed” or “dirty” floating system. In 1977, when the intervention was very heavy, it was characterised as a “filthy” float. When Governments do not intervene, it is a “clean” float. But the possibilities of a clean float are very remote. Thus a system of managed floating exchange rates is evolving where the central banks are trying to control fluctuations of exchange rates around some “normal” rates even though the Second Amendment of the Fund makes no mention of normal rates.

“The present international monetary system has also evolved in a number of important ways, including new allocation of SDRs, increased nations’ quota in the IMF, renewal of the General Agreements to Borrow (GAB), the abolishment of the official gold price, and the formation of the European Monetary System (EMS) and the Euro Currency.”¹

The US is the major country which has been influencing the global monetary system. It has permitted the dollar to float in relation to other currencies with occasional interventions when the dollar has

reached extreme highs or lows. When the dollar was extremely high (appreciating), the G-5 (US, UK, Germany, Japan and France) agreed to intervene to bring the dollar down by the *Plaza Accord* in September 1985. Subsequently, the dollar depreciated substantially i.e. by more than 50% relative to the yen. By early 1987, the dollar had become undervalued and by the *Louvre Accord*, the G-7 countries (G-5 plus Canada and Italy) agreed to cooperate in keeping their exchange rates around their current levels at that time. "The Louvre Accord was successful in stabilising exchange rates for the rest of the year. Since then there seems to have been a consensus that exchange rates should be broadly stabilised, but there is little overt cooperation *among countries*."

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1. D. Salvatore, *Theories and Problems of International Economics*, 3/e, 1990. Italics added.

ITS PROBLEMS

The present international monetary system is faced with excessive fluctuations and large disequilibria in exchange rates. Often countries, both developed and developing, have been faced with either excessive appreciation or depreciation of their currencies in relation to the dollar which continues to dominate the world monetary system. Even the newly created Euro of the EU which was supposed to be a strong currency has been depreciating considerably since its inception against the dollar. This has adversely affected the world trade.

SUGGESTIONS TO REFORM THE PRESENT MONETARY SYSTEM

Economists have suggested a number of measures in order to avoid the excessive fluctuations and large disequilibria in exchange rates for reforming the present world monetary system.

1. Coordination and Cooperation of Policies. A few economists, and McKinnon in particular, suggested international co-operation and co-ordination of policies among the leading developed countries for

exchange rate stability. According to McKinnon¹, the US, Germany and Japan should have the optimal degree of exchange rate stability by fixing the exchange rates among their currencies at the equilibrium level based on the purchasing power parity. Thus they would co-ordinate their monetary policies for exchange rate stability.

2. Establishing Target Zones. Williamson called for the establishment of target zones within which fluctuations in exchange rates of major currencies may be permitted. According to him, the forces of demand and supply should determine the equilibrium exchange rate. There should be an upper target zone of 10% above the equilibrium rate and a lower target zone of 10% below the equilibrium exchange rate. The exchange rate should not be allowed to move outside the two target zones by official intervention. In February 1987, the leading five developed countries agreed under the Louvre Agreement to have some sort of target zones for the stability of exchange rates among their currencies. Despite official intervention by these countries, the exchange rates continued to fluctuate within wide margins than agreed upon at Louvre. Thus Williamson's proposal has since been discarded being impracticable.

3. Improving Global Liquidity. The reform package of the present world monetary system should improve global liquidity. As a *first* step, both BOP deficit and surplus countries should take steps to reduce a persistent imbalance through exchange rate changes via internal policy measures. *Second*, they should also cooperate in curbing large flows of "hot money" that destabilise their currencies. *Third*, they should be willing to settle their BOP imbalances through SDRs rather than through gold or dollar as reserve assets. *Fourth*, there should be increasing flow of resources to the developing countries.

4. Leaning Against the Wind. To reduce the fluctuations in exchange rates, the IMF *Guidelines for the Management of Floating Exchange Rates*, 1974 suggested the idea of leaning against the wind. It means that the central banks should intervene to reduce

short-term fluctuations in exchange rates but leave the long-term fluctuations to be adjusted by the market forces.

5. Richard Cooper suggests a global central bank with a global currency which should be a global lender of last resort.

6. Jaffrey Sachs proposes the creation of an international bankruptcy court which should deal with countries.

1. R.I. McKinnon, "The Rules of the Game : International Money in Historical Perspective", *J.E.L.*, 31, 1993.

7. George Soros opines that the IMF should set ceilings for external finance for each country beyond which access to private capital need not be insured. But there should be mandatory insurance by an international credit insurance corporation.

8. Paul Krugman suggests reintroduction of capital controls as a "least bad response" to an international crisis.

9. Objective Indicators. To iron out exchange rate fluctuations, the IMF Interim Committee suggested the adoption of such objective indicators as inflation-unemployment, growth of money supply, growth of GNP, fiscal balance, balance of trade and international reserves. The variations in these indicators require the adoption of restrictive monetary-fiscal measures to bring stability in exchange rates.

Conclusion. The various suggestions to reform the present monetary system are closely inter-linked. But there is lack of unanimity over the various proposals among the nations. Given the differences of opinion between the developing and developed countries and among the developed countries themselves, there is no hope that any concrete proposal to reform the global monetary system would be acceptable to nations. So the present system of managed floating exchange rate is likely to stay on.

EXERCISES

1. Explain briefly the working of the Bretton Woods System. What led to its breakdown?
2. What were the causes for the collapse of Bretton Woods System? Explain briefly the present international monetary system.
3. What are the main problems of the present international monetary system. Give suggestions to remove these problems.



THE EURO-DOLLAR MARKET

1. MEANING

The Euro-dollar market is the largest market in the international monetary system. It has been playing a central role in international finance.

Euro-dollar is not a different currency from the US dollar. But it is the American dollar which stands deposited with banks, known as Eurobanks (European banks), outside the United States. Quite often, they are deposited with a bank in London, or in Paris, Frankfurt, Amsterdam or Zurich. The term Euro-dollar market is now a misnomer because quite a large number of US dollars have accumulated in banks outside Europe such as in Japan, Canada, Hongkong, Singapore, and other countries. Moreover, Eurobanks have also been dealing in other currencies, such as the British sterling, German marks, Swiss francs, Dutch guilders¹, etc. So it is no longer a Euro-dollar market but a *Euro-currency market*.

2. ORIGIN AND GROWTH

The origin of the Euro-dollar market can be traced back to the 1920s when the US dollars were deposited in the European banks which converted them into their local currencies for lending purposes. But

the real growth of the Euro-dollar market began after the Second World War. The following factors led to its growth:

1. Flow of US Aid. The United States emerged as the most powerful nation in the post-war period which spent huge sums of money on the rehabilitation of Europe both in terms of economic and military aid. This led to the transfer of a large number of dollars in Eurobanks.

2. Cold War. The cold war which started in the 1950s led the Soviet Union and the East European government to transfer their dollar deposits from America to Eurobanks for fear that they might be blocked by the American Government.

3. Decline in the Importance of Sterling. In the post-war period Britain emerged as a debtor country. Consequently, the British sterling which had dominated the international financial market in the pre-war era gave place to the dollar in the post-war period. The importance of sterling further fell when the British Government placed severe restrictions on the grant of sterling to central banks outside the sterling area under the British Exchange Control Act in the early post-war period.

1. The Euro-dollar market is different from the Euro. The Euro is the name given to the combined currency of the 13-member states of the European Union.

4. Regulation-Q. Regulation-Q of the US Federal Reserve System had been a major factor which gave rise to the Euro-dollar market in the late 1960s. Under the Regulation-Q, a ceiling was imposed on the interest rate payable on time deposits with the US banks and it prohibited the payment of any interest at all on deposits upto 30 days. This encouraged the US banks to open branches in Europe and attract dollar deposits to be used for financing international trade. In particular, this happened in 1968 and 1969 and again from 1979 onwards when the Regulation-Q ceiling kept low interest rates on time deposits. Consequently, both the US citizens and foreigners having dollars in excess of their transactions requirements

transferred them in Eurobanks because they paid higher interest rate than the US banks. This also encouraged European lenders and borrowers to trade in dollars in London and other European financial markets rather than in New York.

5. Other US Measures. There were some other measures which hampered the capacity of US banks to compete for international business including curbs on the release of taxes on profits earned by foreigners in the United States, the introduction of the Interest Equalisation Tax in 1964, controls over the US direct investment abroad, and tight monetary policy to control inflationary pressures. These led to heavy borrowing by US banks from the Euro-dollar market to meet the demand for dollars in the US.

6. BOP Deficits in US. There have been large and persistent BOP deficits in the US thereby leading to the outflow of the US dollars to the Eurobanks in countries having surplus with it.

7. Petro-dollars. The increase in the oil prices since 1973 has resulted in the tremendous increase in the incomes of the oil producing countries of the world which are known as petro-dollars. These are deposited in Eurobanks. These have further expanded the Eurodollar market.

8. Innovative Banking. Because of special circumstances that were present in the 1950s, there came into being a banking system distinct from but supplementary to the banking system of Europe. Like any other banking system, its elements consisted of reserves, deposits and loans, all in US dollars and recorded in Eurobanks. Consequently, the Euro-dollar market has grown rapidly, in which deposits are received and loans made in currencies other than that of the country in which the market is situated. Now Eurocurrency market dominates international transactions and traditional foreign banking accounts for only 11 per cent of international banking.

3. FEATURES OF EURO-DOLLAR MARKET

The Euro-dollar market has the following features :

- 1. International Market.** The Euro-dollar market is an international market which accepts deposits in dollars from throughout the world and gives credits in dollars.
 - 2. Independent Market.** It is a free and independent market which does not function under the control of any monetary authority.
 - 3. Wholesale Market.** It is a wholesale market in which US dollars are bought and sold usually above \$ 1 million.
 - 4. Competitive Market.** It is a highly competitive market in which the supply and demand for dollars depends on interest rate changes of Eurobanks.
 - 5. Short-Term Market.** It is a short-term money market in which dollar deposits are usually accepted for a period ranging from a few days to a year and interest is paid on them.
 - 6. Inter-Bank Market.** It is an inter-bank market in which the Eurobanks borrow and lend dollars and other Euro-currencies from each other.
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4. HOW DOES IT FUNCTION?

The Euro-dollar market is very extensive and complex. It is a means of transferring short-term and medium-term funds from one country to another. Euro-dollar deposits and loans expand whenever funds flow into the Eurobanks as deposits from (i) commercial banks or residents of the United States; (ii) transfers by commercial banks or residents of other countries; and (iii) central banks, either directly or through the Bank for International Settlements. The first type of flow from the United States can be caused by one or more of the following factors : (1) a fall in US interest rates relative to Euro-dollars rates; (2) an increased desire for asset diversification; (3) a

fall in covered yield of foreign assets; or (4) an expected appreciation of the US dollar.

The flow of Euro-dollar from commercial banks or residents outside the United States involve a portfolio shift out of domestic currency assets into US dollars. Moreover, many central banks also redeposit a substantial proportion of their reserve gains in the Euromarket.

The Euromarket is connected closely to the foreign exchange market because banks are able to manage their foreign currency positions in two ways : (1) They can buy and sell currencies outright in the spot and forward exchange markets. (2) They can borrow and lend currencies in the interbank market. However, many Euro-currency loans are made to non-bank borrowers also. Let us analyse the functioning of the Euromarket. Suppose that a bank in London acquires dollar-deposits on a New York bank. If the London bank simply keeps these deposits, no Euro-dollars are created. But if this bank lends these dollars to some individual at interest rate, it creates dollar deposit claims against itself. These claims are Euro-dollars which the bank in London has created in excess of what it holds on a New York bank. Thus the ultimate increase in Euromarket aggregates will not be identical to initial deposit inflows because there are always subsequent flows induced by interest differentials and portfolio adjustments.

The above process of credit creation in the Euromarket has led economists to use the credit-multiplier analysis to explain its behaviour. Given the initial levels of US and foreign interest rates, this multiplier is always less than 1. This is because an initial deposit inflow of, say, \$ 100 will encourage dollar rates to fall relative to foreign rates. This will, in turn, lead to a leakage in the original inflow. Moreover, the Euromarket is very vast and unregulated. Therefore, it does not operate like the ordinary banking system. Last but not the least, the multiplier analysis is essentially a tool for examining a credit creation in a closed economy, whereas the Euromarket is an open market. This fact severely limits the usefulness of the credit

multiplier as a method for expanding the growth of the Euro-dollar market.

5. ROLE IN INTERNATIONAL FINANCIAL SYSTEM^{*}

The Euro-dollar market has been playing an important role in international financial system. Investing and borrowing US dollars is the core function of the Euro-currency market. It transfers short and medium terms funds throughout the world, thereby increasing international capital mobility. It not only enables individual banks to improve their portfolio allocation, but also provides important services to the non-bank private sector. The Euro-currency market attracts funds because it offers higher interest rates, greater flexibility of maturities, and a wider range of investment qualities than other short-term capital markets. It attracts borrowers because it lends funds at relatively low interest rates. It is competitive in the interest rates it charges and receives, both because of the economies of scale afforded by concentrating on wholesale transactions, and because the Eurobanks are not subject to the regulations which tend to raise costs in domestic banking.¹ Commercial banks, central banks, government treasuries, international banks like the Bank of International Settlement, and multinational corporations are the borrowers and lenders in the Euro-currency market.

^{*} This also relates to the economic consequences (or effects) of the Euro-dollar market.

¹ Andrew Crockette, *International Money*, 1977.

Positive Effects. The following have been the economic consequences of the Euro-dollar market :

1. The expansion of the Euro-dollar market has greatly increased international capital mobility and has helped in easing the global liquidity problem.

2. It has helped in integrating international capital markets.
3. It has played an effective role in recycling funds from countries having surplus balance of payments to those having deficit balance of payments.
4. International flows of Euro-dollars have improved economic efficiency by reducing interest differential among nations.
5. The Euro-dollar market has also resolved the problems of countries whose policy objectives aim at controlling international capital movements by transferring dollars from and to Eurobanks.
6. It has helped in financing BOP deficits and surpluses of countries through lending and borrowing dollars in exchange for other currencies from the Euro-dollar market.

Adverse Effects. However, these flows of Euro-dollars have three adverse effects :

First, when the monetary authority of a country is trying to curb inflation through a restrictive monetary policy, an inflow of short-term capital defeats such a policy. Again when there is an outflow of capital and the country is following an easy monetary policy to combat unemployment, such a policy again becomes ineffective. This is because the Euro-dollar market does not operate under the regulations of any authority.

Second, Euro-dollars provide an enormous fund of liquid resources which are used for speculative capital movements. These expose the economies of the concerned countries to severe strains of sudden and large withdrawals of credits. Such financial upheavals and disturbances also affect the international monetary system as a whole, especially when the countries involved are not protected by exchange controls or trade barriers.

Third, according to Milton Friedman, "The Euro-dollar market has almost surely raised the world's nominal money supply (expressed in

dollar equivalents) and has thus made the world price level (expressed in dollar equivalents, higher than otherwise it would be.”

ITS ROLE IN DEVELOPING COUNTRIES

The developing countries have also benefitted from the Euro-dollar market. They have been borrowing from the Eurobanks in terms of medium-term syndicated loans. Euro-currency and Eurobonds are important sources of finance for the developing countries. They have helped in meeting BOP deficits, particularly of such developing countries as India, Brazil, Mexico, Chile, etc. It is not only the governments but also business corporations of developing countries that are receiving European funds through the Eurobanks. However, the least developing countries have not been able to borrow much from this market. Despite this, speculative capital movements in the Euro-dollar market have been adversely affecting the developing countries more than the developed countries. This is because the former are more dependent on the international financial centres and capital markets like the Euromarket and London Stock Exchange.

EXERCISES

1. What is Euro-currency market? How does it function? What role does it play in the international financial system?
2. What is Euro-dollar market? Explain its working and economic consequences.



THE EUROPEAN COMMUNITY (EC) OR THE EUROPEAN UNION (EU)

1. HISTORY

The European Economic Community (EEC) or European Community (EC) was founded in 1957, under the Treaty of Rome, by France, Germany, Italy, Belgium, Luxemburg, and the Netherlands. The community of the original six members was enlarged as from January 1, 1973 with the inclusion of Ireland, Denmark and the United Kingdom. Greece became its member in 1981, followed by Portugal and Spain in 1984. The Community has now 27 members.¹ Since 1995, it is called the European Union (EU).

The forerunner of the EC was the European Coal and Steel Community (ECSC) Treaty which was ratified by the original six members in 1952. It removed all import duties and quota restrictions on coal, iron ore, steel and scrap on intra-community trade. The aim was to have economies of scale in these industries in order to compete effectively with the US and other foreign producers.

This partial integration by the six members of the ECSC was enlarged by the Treaty of Rome in 1957, for the establishment of a common market for all commodities and for the development of atomic power.

2. OBJECTIVES

The EC consists of three organisations based on their separate treaties originally signed by the six member states : *first*, the ECSC set up by the Treaty of Paris in 1951, valid for 50 years; *second*, the EC by the Treaty of Rome in 1957 of unlimited duration; and *third*, the European Atomic Energy Community (Euratom) by the Second Treaty of Rome in 1957, also of unlimited duration. The first treaty was already in operation from July 1952 and the other two came into force from January 1958. The Single European Act of 1986 led to the formation of a single internal market in the EC. The objectives of the Community include :

1. The are Germany, Belgium, UK, Italy, France, Sweden, Netherlands, Spain, Finland, Austria, Romania, Denmark, Czech Republic, Ireland, Poland, Hungary, Greece, Slovak Republic, Slovenia, Latvia, Luxembourg, Portugal, Bulgaria, Estonia, Lithuania, Cyprus and Malta.

(a) the elimination, as between Member States, of custom duties and of quantitative restrictions in regard to the import of and export of goods, as well as all other measures having equivalent effect;

(b) the establishment of a common customs tariff and of a common commercial policy towards third countries.

(c) the abolition, as between Member States, of obstacles to freedom of movement for persons, services and capital;

(d) the establishment of a common policy in the sphere of agriculture;

(e) the adoption of a common policy in the sphere of transport;

(f) the establishment of a system ensuring that competition in the common market is not distorted;

(g) the application of procedures by which the economic policies of Member States can be co-ordinated and disequilibrium in their

balance of payments can be remedied;

(h) the approximation of the laws of Member States to the extent required for proper functioning of the common market;

(i) the creation of a European Social Fund in order to improve the possibilities of employment of workers and to contribute to the raising of their standard of living;

(j) the establishment of a European Investment Bank to facilitate the economic expansion of the Community by opening up fresh resources; and

(k) the association of overseas countries and territories with a view to increasing trade and to promoting jointly economic and social development.

Thus the principle objectives of the EC are the elimination of all obstacles to the free movement of goods, services, capital and labour between the member countries, and the establishment of common policies in the spheres of agriculture and transport, and a common external commercial policy. To make the common market effective, a variety of national policies relate to competition, fiscal matter and regional aids.

3. ORGANISATION

The following is the organisational set up of the EU:

European Council. This consists of one minister from each member country. Its decisions are taken by unanimous or majority voting. The Presidency of the Council is held by each member country by rotation for a six-monthly period. The Council has its own secretariat with the Committee of Permanent Representatives (Coreper) as a most important body. Members of Coreper are officials of ambassadorial rank who are assisted by a number of specialist and subordinate committees. All major policy-making decisions of the

Community, ranging from early discussions to decision taking by the Council, are made by Coreper. It is also an essential link between the EEC and member governments. Thus the Council “is the executive agent of the Community making daily decisions, formulating rules of conduct, preparing new legislation, and providing members to carry out the provisions of the Treaty.”

European Commission. The Council is assisted in its work by the European Commission. This consists of 20 Commissioners, two each from the 5 large countries and one each from the small. This is the executive body of the EC whose members are appointed for periods of four years with renewable appointments. The President and Vice-Presidents are chosen from its members by governments for a two-year renewable period. The Commission has its own staff of over ten thousand civil servants, including translators and interpreters. It administers existing treaties and their subsequent rules and proposes new policies.

Court of Justice. The Court of Justice adjudicates disputes relating to agriculture, competition policy and social security for migrants among the member countries. It also decides about cases brought by the Commission against member states or against the Council or Commission or by a firm or person against a Community decision. It also interprets the Treaty and other regulations, and levies penalties for infringements. Member states are bound by the Treaty of Rome to comply with the judgement of the Court.

Court of Auditors. It audits the Community budget, monitors its expenditure thoroughly and lays down better procedures for the collection of duties and levies.

European Parliament. Constituencies in the member countries elect MEPs (Members of European Parliament). Its role is of a general consultative and informative nature. But it has the power to approve or reject the draft budget prepared by the Commission. It can also dismiss the Commission. It must be consulted by the Council before a final decision is taken. The Parliament usually acts through the main Parliamentary Committee.

Advisory Institutions. Advisory institutions include the Economic and Social Committee, the Monetary Committee and the Consultative Committee on coal and steel industry.

4. WORKING AND ACHIEVEMENTS

The EC has worked towards the creation of a *customs union* having common external tariffs and no internal tariffs. It has also been following *certain* common economic policies for a *common market*. These are discussed below :

Customs Union. The principle objective of the EC was the creation of a customs union. To achieve this, the Treaty of Rome provided 12 years for the elimination of internal tariffs and other trade barriers, and the adoption of a common external tariff for industrial goods. Both these goals were achieved on 1 July, 1968 and full *customs union* became a reality.

Common Agricultural Policy (CAP). The CAP machinery varies from product to product, but the basic features are the same. The agricultural support prices for different products are fixed by the Council in Units of Account. For each member country there is a "Green Rate" at which the support prices are converted into national prices. Farmers in all member countries are free to produce as much as they like at the support prices. There are no trade barriers on the movements of agricultural products from one member country to another. Imports from the outside world are allowed only if there is excess demand over domestic production of farm products. To keep imports under check, a variable import levy is used that can be raised or lowered thereby completely offsetting any price advantage enjoyed by importers. In the case of those farm products whose production exceeds the community requirements, subsidies are provided to finance their exports or additional consumption within the community.

With the adoption of the CAP, the Community has become self-sufficient in agriculture and another step towards customs union has been achieved. But it has its failures. *First*, the CAP has not been able to encourage farmers to seek alternative occupations, as per the objectives of the Treaty of Rome. *Second*, it has made the rich farmers richer but has failed to do anything for the poorer farmers. *Third*, it has failed to provide farm products to consumers at reasonable and stable prices because the support prices have been set at high levels. *Finally*, the CAP has led to huge surpluses in the form of “the butter and beef mountains; the wine lakes; earlier on, the grain and sugar surpluses; and more recently the milk lake.” The EC sells them at world market prices.

Common Fisheries Policy. It covers marketing of fresh frozen and preserved fish. It applies common market standards and facilitates trading between member countries. It provides equal access to fishing areas for all EEC nationals, with provisions for certain kinds of offshore fishing. But this policy has been far from common because it has been based on ad hoc compromises and concessions for individual member nations.

Factor Mobility. Workers and their families can move from one member country to another without a permit, and they have the same rights to work and social security and are subject to the same taxation as nationals of the concerned country. So far as capital mobility is concerned, it has been obstructed by international monetary disturbances. Consequently, capital mobility has not taken place smoothly and easily.

Regional Development Policy. The regional policy of the EC has been mainly concerned with providing financial help to the backward areas of member countries. It provides regional aid through the European Investment Bank (EIB), the European Social Fund (ESF), and the European Regional Development Fund (ERDF). The EIB is a non-profit making institution which performs three important functions. *First*, it gives loans and guarantees to improve basic common facilities in the underdeveloped regions of the member

countries and associated countries. *Second*, it provides financial aid to projects for modernisation, conversion or development that are too large to be handled by individual member states. *Third*, it helps finance projects in which member countries have a common interest. The ESB assists financially the reemployment of workers thrown out of work as a result of EC policies. The ERDF lends and grants money for the development of the backward regions of the EC. It makes supplementary grants to help investment in the industrial and service sectors. It makes investments in infrastructure that create new jobs or safeguard existing jobs, and in infrastructure in backward rural area.

Despite these measures, the Community's regional development policy has failed to iron out income disparities. Rather, the disparities between the economies of member countries have been widening.

Common Transport Policy. The Treaty of Rome laid down the adoption of a common transport policy which includes : (a) the elimination of obstacles which transport may put in the way of the establishment of the common market as a whole; (b) integration of transport on the community level in the form of free movement of transport services within the member countries; and (c) general organisation of the transport within the community. Except for the first objective, little progress has been made in achieving the other two objectives towards a common transport policy. This has been due to the complex problems involved in infrastructure pricing, entry controls and rate controls of the individual member states relating to the hauling of goods by rail and road transport.

Monopoly and Restrictive Practice Policy. This policy applies primarily to companies operating in more than one member state. It prohibits agreements between firms which adversely affect competition in trade between member states.

Harmonisation of Taxation. Goods can move from one member states to another without any border control. But VAT is the standard form of tax which is charged in the country of destination when goods cross from one EU country to another. They are exempt from

VAT in the country where they are produced. However, there are differences in VAT rates between member states. But there is no harmonisation of other indirect taxes and direct taxes.

Common Social Policy. This relates to laws relating to employment, health and safety at work, equal pay for men and women for the same work, and collective bargaining rights. Till the adoption of the Social Charter in 1989, little progress had been made in this direction. The Social Charter established 12 principles relating to workers' rights and social justice. Of these, the following have been adopted by the member states:

- (1) Right of citizens of one state to live and work in another state for the same wages and under the same working conditions;
- (2) passing of various types of equal opportunities legislation such as child care for working parents;
- (3) a maximum working week of 48 hours, one day off per week, and four weeks' minimum annual holiday;
- (4) Protection of pension and other social security rights of workers moving from one state to another;
- (5) health and safety measures in the workplace;
- (6) creation of European Employment Service; and
- (7) European information network for vacancies.

Economic and Monetary Union (EMU). The Treaty of Rome did not specifically mention about a European Monetary Union. But the monetary upheavals of 1970 prompted the Community Ministers at the Hague to agree to the establishment of an economic and monetary Union. Accordingly, the Werner Report recommended the establishment of the European Monetary Union by stages and the achievement of complete monetary integration by 1980. The member countries were asked to join the "European current snake"

procedure for the control of exchange rates. But it was by the Bremen Declaration of July 1978 that the European Council decided to establish the European Monetary System (EMS). The EMS was started in March 1979. It had four main features : (i) the Exchange Rate Mechanism (ERM), (ii) the European Currency Unit (ECU), (iii) the European Monetary Cooperation Fund (EMCF), and (iv) financing facilities. The ERM and EMS worked smoothly and were very successful in bringing monetary cooperation among member states. The success of the ERM encouraged the EC countries to have a single currency, the Euro which led to the *Maastricht Treaty*.

The Euro. In February 1992, the 15-member countries signed a treaty for the European Monetary Union at Maastricht in Netherlands. But only 13 EU countries confirmed the Treaty and joined the European Monetary Union (EMU). They are Belgium, Germany, Spain, France, Ireland, Italy, Luxembourg, the Netherlands, Austria, Portugal, Finland, Greece and Sweden.

Single or Common Market. Till the 1980s, the EU was a customs union having the above noted features. But it was not a common market where all sorts of non-tariff barriers existed. The Single European Act of 1986 proposed to remove these barriers by December 31, 1992. On January 1, 1993, the EU emerged as a single frontier-free market of 345 million people which became fully operational from January 1, 1995. The main features of the single market are : (1) Free movement of goods, capital, services and persons inside the EU; (2) restrictions on imports imposed by member states replaced by a Community tariff system; (3) the right for everyone to live in another member state; (4) recognition of vocational qualifications in other member states; (5) right of accountants, engineers, medical practitioners, teachers and other professionals to practice throughout the Union; (6) common commercial laws; acceptance of the Principle of Mutual Recognition whereby one country's rules and recognitions must apply through the Union. In case of any conflict, individuals and firms are free to choose which rules and regulations to obey; and (7) acceptance of the Principle of Majority Voting relating to harmonisation of rules and

regulations. In all there were 282 proposals in the Single European Act which have been adopted throughout the Union. Thus EU is not only a customs union but also a common market.

CRITICAL APPRAISAL

The EU has achieved some of its major objectives relating to the removal of all obstacles to the free movement of goods, services, capital and labour between the member countries, and the establishment of common policies in the sphere of agriculture and common external commercial policy. Consequently, a vast common market has been created and trade has expanded considerably. Over the years member nations have enjoyed high rates of investment and growth in income. It has been successful in creating the Economic and Monetary Union (EMU) as a bulwark against the hegemony of the dollar. The balance of payments position of the member countries has become stronger. The Community has been able to levy duties at standard rates on products from the United States, Japan and Canada. It has even withstood American threats over the issues without making any compromises. Encouraged by the success of the EU in various fields. East European countries have been included in the EU. Now there are 27-member states.

Despite all these achievements, the EC has not been successful in achieving a complete economic and political union. It has failed to evolve a common transport policy. There has been no harmonisation of monetary and fiscal measures. Regional disparities within member countries persist. The EC is emerging as a “disunited states of Europe” with significant policy differences between states policy. Empirical studies have revealed that some trade diversion effects have occurred. But trade creation effects have been much stronger so that the total trade of the Community with the outside world has increased manifold.

5. EC AND DEVELOPING COUNTRIES

The EC's relations with the developing countries go back to the Treaty of Rome in 1957. The original six signatories to the Treaty agreed to associate the EC to those non-European countries and territories which had special relations with France, Belgium, Italy and the Netherlands. The exports and imports of the "associated members" are treated at par with the Community members. With the entry of the UK into the EC in 1973, a large number of her former colonies became associated members of the EC. Initially, separate agreements were signed with such developing countries who became associated members of the Community. But in 1975, a single agreement was signed under the Lome Convention with 45 African, Caribbean and Pacific (ACP) countries. At present, there are 12 countries in Mediterranean region, and 66 ACP countries that have signed the third Lome Convention. The Lome accord includes the relaxation of some non-tariff barriers, less stringent enforcement of some trade regulations, and exemptions from certain bilateral trade agreements such as the MFA (Multi-Fibre Arrangement). But it is subject to regulations which severely limit free access for the exports of beneficiaries, including a safeguard clause which allows the EC to suspend any concessions unilaterally. Although the ACP countries as a group have been receiving preferential tariff rates and exemption from the MFA, empirical evidence reveals that there has been actually a decrease in trade between ACP countries and the EC. But some trade-creating effects have occurred in the form of diversification of exports from the ACP countries in the form of manufactures, and processed agricultural and temperate agricultural products.

So far as the other developing countries of South East Asia, Latin America and the Gulf and Southern Mediterranean are concerned, a link between them and the EC was provided by the Generalised System of Preferences (GSP) in July 1971. The GSP allowed free entry of certain manufactured goods exported by developing countries to the EC and helped them to industrialise. The GSP was phased out in January 1998. Now developing countries have signed individually commercial and co-operation agreements with the EC. Leaving aside those developing countries that are associated

members of the Community, the other developing countries have not benefited much from the GSP. They continue to suffer from rising protectionism in their trade relations with the EC. At the same time, budgetary constraints prevent the community from increasing its financial aid to developing countries. By remaining outside the UNCTAD, the EC has failed to help such countries much. However, the announcement in March 2001 by the EU Trade Commission for zero-tariff, zero-duty trade package for the world's poorest nations is a major contribution of the community towards the developing countries.

The EC is the largest textiles market in the world. It has negotiated bilateral trade agreements with the South Asian and Latin American countries and other low-wage textile exporting countries under the provisions of the GATT Multi Fibre Arrangement.(MFA). The EC has agreed to a gradual phasing out of the MFA under the GATT Uruguay Round talks. Until then, the bilateral agreements would continue to be extended for the benefit of developing countries.

The EC helps developing countries in developing tele-communication, science and technology, energy, and human resource development. It carries on Joint research projects in developing countries which include biotechnology, health, environment, material sciences, energy, agriculture and food technology. It aids such countries in trade promotion, stabilisation of export earnings, and encourages regional integration among them. The EC funded development projects are mostly in rural areas. They include rural electrification, irrigation, primary education, and community development.

The EC has been playing a major role in international drugs control. It launched a special programme to curb drug abuse in 1987 with emphasis on backing the efforts of developing countries to reduce demand for and production of narcotics. The EC finances projects for education, detoxification, rehabilitation, and cutting back the consumption and production of drugs in Asia, Latin America, Africa and Caribbean.

The European Community launched in 1988 the EC Investment Partners (ECIP) in order to boost economic development in Asia, Latin America and the developing Mediterranean countries. The scheme provides financial help to EC companies willing to undertake direct investment in developing countries. The ECIP promotes joint investment projects so as to encourage transfers of capital and technology and help create jobs in new industrial sectors. It also helps those companies which want to operate in developing countries through licensing and technical assistance agreements. The emphasis is on promoting small and medium enterprises. It covers all sectors of the economy, including industry, services, agriculture and mining. It operates through financial institutions, both in the EC and the developing countries. They act as ECs agents. They analyse projects, recommend whether to accept or reject joint ventures, draft contracts and make payments. The ECIP provides funds for projects identification studies, for human resources development, and for equity participation in joint ventures. It operates on a first come first served basis and no quotas are fixed for individual developing countries.

INDIA AND EC

India has entered into a commercial and economic cooperation agreement with the 27-nation EC. She is represented by an ambassador at the Indo-EC Joint Commission. The EC's share in Indian foreign trade has not changed much over the years. In 1970-71, India's exports to the Community were 18.4 per cent of the total exports of India which increased to 21.3 per cent in 2006-07. But the share of imports declined. It was 19.6 per cent in 1970-71 which fell to 18.3 per cent in 2006-07. In absolute terms, India's trade deficit has been widening. Even though Indian exports to the EC have increased, yet these amount to less than 0.6 per cent of imports of the Community. The reasons for India's sluggish exports over the years to the EC are not far to seek. About 60 per cent of Indian exports are subjected to non-tariff barriers of various kinds by the Community. In fact, rising protectionism has been largely responsible for the decline in Indian exports, in particular agricultural and marine

products, chemicals, garments and engineering products. Under GSP, India had been getting duty free entry for its exports of semi-manufactured and manufactured goods which was phased out in January 1998. Despite this, with the expansion of EC, there is large scope for India to increase its exports of consumer and manufactured goods to the EC.

There have been two main elements in the Community's relations with India. *First*, trade co-operation, and *second*, development aid. Under the former, it has entered into a commercial agreement with India for the import of textiles under the MFA (Multi Fibre Agreement). Under it, India exports textiles and clothing to EC. India is the largest source to the Community. In December 1992, the EC extended its bilateral agreement with India for textiles and clothing exports for a two-year period with a possibility of extending it further for one year. With the phasing out of MFA in stages under the GATT Uruguay Round of talks, India's exports of clothing and textiles are expected to increase in the years to come.

Development aid includes cooperation in science and technology, energy and human resources. An important element of aid to India is food aid in the form of skimmed milk powder (SMP) and butter oil for Operation Flood, and financial aid for the purchase of fertilisers. The counterpart funds generated by the sale of SMP and butter-oil are used to finance rural development projects. They include rural electrification, irrigation, and primary education. The Community has also funded a number of training programmes, and programmes for trade promotion of Indian products. The aim is to help Indian industry improve its technology, produce to standards acceptable to European buyers, reduce production costs, and acquire greater familiarity with European business culture. The European Commission is also promoting wide ranging contacts in a variety of new sectors such as engineering goods, machine tools and medical and surgical equipment.

The EC has been helping India in its environmental programmes and energy management and planning. An EC-India Energy

Management Centre has been set up with EC funds in 1989. Its main aim is to encourage the transfer to reliable EC energy technology. Besides, to prevent drug abuse, projects sanctioned by the EC include the setting up of detoxification centres in New Delhi and Bombay and pilot programme for anti-drug education in Bombay schools.

The process of liberalisation of Indian economy has led to a greater emphasis on direct contact and cooperation between economic operators, particularly in the private sector, in both EC and India. This has received further encouragement under the ECIP scheme which provides financial assistance to EC companies to set up joint ventures in developing countries. India has been receiving capital and technical assistance through its agents the Exim Bank of India, ICICI and IDBI. The recently set up Indo-EC Business Forum enables businessmen and industrialists in both the EC and India to be in close contact with each other on mutual business issues.

On the official level, an Indo-EC Co-operation Agreement on Partnership and Development has been signed in December 1992. India is the first country with which the EC has entered into such an agreement. The agreement stipulates that trade relations between the EC and India will continue on an MFN basis. But market access will be increased to the highest possible level by removing nontariff barriers and resolving disputes, including anti-dumping. There will be greater cooperation in frontiers of technology, such as biotechnology, new materials, informatics, energy, etc. The agreement will help improve India's economic and business climate.

The EC has passed a legislation whereby exports of food, food products, drugs and pharmaceuticals, and most durable consumer goods, including electrical equipment, are required to meet EC standards and certification. The Indian companies which are adopting ISO 9000 as the basis for quality management system are also required to meet the corresponding EC, standard EN 29000. Manufacturers whose products do not conform to these standards will be barred from entering the EC, thereby creating problems for

them. To overcome them, Indian experts at the ISI are being trained in European testing laboratories while EC experts are visiting India to advise manufacturers as well as testing laboratories. A modernisation programme is also being undertaken to help Indian laboratories to come up to the EC standards. The EC also support sector development at the national, state and district level. It funds operational research at the national level aimed at promoting attitude changes and managerial skills. At the state level, it contributes to consensus building on primary health system reform within the context of reproductive and child health. At the district level, it supports organising and implementing the decentralised process. All these funds are being provided in grant form. India is the largest single beneficiary of EC development assistance.

EXERCISES

1. Discuss the achievements of the European Union in the light of its objectives.
2. Discuss the working and achievements of the European Community. To what extent it has been successful in achieving the objectives of a common market?
3. Explain briefly the objectives of the European Union. What is its role in helping developing countries? Explain in particular its relations with India.
4. Write notes on EC and India, EC and Developing Countries.



THE EUROPEAN MONETARY SYSTEM AND THE EURO

1. INTRODUCTION

This chapter analyses the formation and functioning of the European Monetary System (EMS) which ultimately led to the establishment of the European Monetary Union (EMU) and the adoption of the Euro as the common currency unit by the European Union (EU).

2. THE EUROPEAN MONETARY SYSTEM

ORIGIN

The dollar crisis which led to the breakdown of the Bretton Woods System prompted the EU countries to establish the “snake in the tunnel” in 1972. Under this *arrangement*, the EU currencies were tied together and could fluctuate within narrow limits in relation to one another “(snake in the tunnel)”¹ but jointly floating against other currencies of the world (“the snake out of the tunnel”). But this arrangement was brief and sporadic because countries moved into or out of the arrangement with changing circumstances. After 1973, the “snake” was left to float against the dollar and the tunnel vanished. In the end, the “snake” became a German Mark currency area, with Germany the only large country of the EU. However, the

“snake” was the forerunner of the more comprehensive European Monetary System.

At the initiative of France and Germany, by the *Bremen Declaration* of July 1978, the European Council decided to establish the European Monetary System (EMS). The EMS was formed in 1979 to coordinate or integrate monetary and fiscal policies and exchange rates among EU members.

WORKING

The main elements in the EMU were :

- (i) There Exchange Rate Mechanism (ERM).
- (ii) The European Currency Unit (ECU).
- (iii) The European Monetary Cooperation Fund (EMCF), and
- (iv) Financing facilities.

[1.](#) Germany, the Netherlands, Belgium, Luxembourg, France, Italy and Britain joined this arrangement.

The working is explained as under :

(i) The Exchange Rate Mechanism (ERM). The ERM was established by the EU to replace the currency “snake” for the control of exchange rates. It was meant to keep the exchange rates of member countries within specified bands in relation to each other. Most exchange rates fixed by the EMS until August 1993 could fluctuate up or down between ± 2.25 percent against any currency. To begin with, this applied to France, Germany, Belgium, Denmark, Luxembourg, the Netherlands, Italy and Ireland. Spain joined in 1989, Britain in 1990 and Portugal in 1992 with 6 percent band. For some years, the ERM seemed to be working well. The bands had to be adjusted a number of times to stabilise exchange rates and control inflation in member countries. But after the unification of

Germany in 1990, the ERM began to collapse when members were forced to follow different monetary policies. In September 1992, Britain and Italy left it. In August 1993, all bands were widened to ± 15 percent under speculative pressures, except for the German mark and the Dutch guilder. However, Austria joined the system in 1995, followed by Finland and Italy at 15 percent in 1996.

(ii) The European Currency Unit (ECU). The ECU was introduced as a unit of account by the EU on the formation of EMS in 1979. Its value was equal to a weighted average of the currencies of member countries. The weight given to each currency was according to the relative size of a country's GDP and its intracommunity trade. By 1981, it had replaced all other units of accounts being used in the EU. However, it was used very little by other units of accounts being used in the EU. However, it was used very little by other financial markets. Despite this the ECU was a success. It was not only embraced by the member countries but also by the private sector which issued bonds and did bank transactions on a large scale in ECUs.

(iii) The European Monetary Cooperation Fund (EMCF). The EMCF was an important part of the EMS. It acted as the clearing house for the central banks of the EMS. But, in practice, routine working of the system was carried out by the Bank for International Settlements. The central banks of the EMS were required to deposit 20% of their gold and foreign exchange reserves with the Fund on a short-term basis in exchange of ECUs.

On the basis of the above elements, the working of the EMS was not smooth. During the early years of its operation, some members imposed exchange controls to reduce the possibility of speculation in their currencies by directly limiting the scale of domestic currencies for foreign currencies.

There were also periodic currency alignments in relation to the "bands." There were eleven currency realignments between March 1979 and January 1987. Exchange controls helped the members to protect their foreign exchange reserves from speculators. From

January 1987 to the end of 1992, exchange controls were removed by a number of EU countries. But the EMS continued with its fixed exchange rates. The unification of Germany in 1990 led to differences in macro-economic policies of member countries which weakened the EMS. There was boom and high inflation in Germany which the Bundesbank (central bank) of Germany tried to control through high interest rates. But major EMS countries like France, Britain and Italy were not prepared to raise interest rates so as to keep their currencies fixed against Germany. This policy conflict led to a crisis in the EMS exchange bunks which ended only when the banks were widened to ± 15 percent for most countries by August 1993. These remained inforce until the introduction of the Euro in 1999.

(iv) Financing Facilities. The members of the EMS had access to credit facilities which aimed at helping countries with public deficit to manage their transitory problems and defend their exchange rate parities. These facilities covered their very short-term, short-term and medium term requirements and were operated by their central banks.

Conclusion. On the whole, the EMS worked well in bringing monetary cooperation among member countries. The success of the EMS encouraged the EU countries to have a single currency which led to the Maastricht Treaty.

3. THE EUROPEAN MONETARY UNION : THE EURO

The early ups and downs in the working of the EMS which were characterised by currency realighments and strict exchange controls set the EU members to think about having a monetary union. In 1989, the *Delors Committee* recommended a three-stage transition for the formation of a European Monetary Union (EMU).

In the *First stage*, all EU members were to join the Exchange Rate Mechanism (ERM) of the European Monetary System (EMS). In the

Second Stage, exchange rate bands were to be narrowed and certain macroeconomic policy decisions were placed under EU control. In *stage three*, the national currencies of EU countries were to be replaced by a single European currency and all monetary policy decisions were to be vested in a European Central Bank.

THE MAASTRICHT TREATY

On 10 December, 1991, the leaders of the EU countries met at *Maastricht* in the Netherlands and agreed to establish a single European currency which is called the Euro. In February 1992, the 15-member countries signed the *Maastricht Treaty* for the European Monetary Union (EMU). It called upon the members to start stage two of the Delors Plan on 1 January, 1994 and stage three not later than 1 January, 1999.

ITS MAIN FEATURES

The Maastricht Treaty lays down that EU countries must satisfy four macroeconomic *convergence criteria* before they can be admitted to the EMU. They are :

1. The rate of inflation in the country must not be more than 1.5% above the average of the three EU member countries with the lowest inflation rate.
2. The country must have maintained a stable exchange rate under the Exchange Rate Management System without devaluation.
3. The country must not have a public deficit higher than 3% of its GDP, except temporarily and in exceptional circumstances.
4. The country's public debt must be below or near 60% of its GDP.

The Treaty provides for a regular monitoring of criteria (3) and (4) by the European Commission and for imposing penalties on countries that violate these two criteria and fail to correct excessive deficits and debts.

POST-MAASTRICT DEVELOPMENTS

Besides this Treaty, the EU members signed the *Stability and Growth Pact* (SGP) in 1997 which further tightens the fiscal measures by laying down the medium term budgetary objective of being near to balance or surplus. It also sets out a timetable for levying penalties on countries that fail to correct excessive deficits and debts.

By May 1998, eleven EU countries had satisfied the convergence criteria and became founder members of EMU. Britain and Denmark had ratified the treaty but they did not join it and retained their national currencies. Sweden and Greece failed to qualify in terms of criteria to be members. But they subsequently joined. Now there are 13 members of EMU.

The time table for the implementation of EMU and adoption of the EURO was divided into three stages :

In the *first stage*, the European Central Bank (ECB) was established on 30 June, 1998 at Frankfurt (Germany) for a smooth change over the currencies of member nations to the Euro. The main functions of the Bank till the circulation of Euro coins and bank notes from 1 January, 2002 were to control inflation and create confidence of the global financial markets in the Euro.

In the *second stage*, beginning 1 January, 1999, the central banks of EU countries adopted the Euro as a single monetary unit.

In the *third stage* beginning January, 2002 more than 14 billion Euro bank notes and 50 billion Euro coins replaced national currencies and bank notes and coins of members. They were made available at all banks, and post offices. Till 31 December, 2002, banknotes of each Euro area country could be exchanged at banks in the country concerned. At least until the end of 2012, national central banks will exchange free of charge their old national banknotes against the Euro. In most countries, the redemption periods are longer or even indefinite.

The EMU currency consists of Euros of 100 cents. The Euro banknotes have seven denominations of 5, 10, 20, 50, 100, 200 and 500 Euro. The Euro coins have eight denominations of 1, 2, 5, 10, 20, 50 cent and 1 and 2 Euro. Euro coins have a European side and a national side on which national symbol of the issuing country appears. But Euro banknotes do not have national symbols. They are uniform throughout the EU. Countries like Britain which have their own currencies in circulation have fixed exchange rates with the Euro and it circulates in such countries.

The *European Central Bank* (ECB) and national central banks (NCBs) of 13 EU countries form the *European System of Central Banks* (ESCB). The NCBs of the EU countries that have not joined the Eurozone are members with special status. They conduct their respective national policies but do not take part in decision making of the EMU and the implementation of its policies. All heads of NCBs sit on the ECB general council which conducts monetary policy for the entire Eurozone. Besides this, (i) the ECB conducts foreign exchange operations; (ii) holds and manages the official foreign exchange reserves; (ii) promotes the smooth operation of the payment system; and (iv) supports the policies of its member banks.

Conclusion. The Euro, as the international currency of the European Monetary Union, was weak against the dollar in the beginning. To begin with, it opened at 1 EUR = \$ 1.16 in 1999. But when the Euro actually started operating in January 2002, it fell to 1 EUR = \$ 0.89. With the U.S. budget and current account deficits widening and the U.S. Federal Reserve (central bank) reducing the bank rate in subsequent years, it surged to a record high of \$ 1.45 in early 2008.

ADVANTAGES OF THE EURO

The following have been the advantages of adoption of the Euro :

1. The Euro has brought a greater degree of European market integration.

2. It has removed the threat of currency realignments.
3. It has eliminated the costs and inconveniences of traders to convert one currency to another of the EU countries.
4. There is no longer any risk of fluctuations between currencies.
5. Rates of interest and inflation rates are much lower now.
6. Exchange rates are permanently fixed,
7. There is freedom of capital movements.
8. People now buy, sell and borrow within a larger and more competitive market.
9. Prices are displayed in the same currency throughout the EU. They are easier to compare and help the buyers to make the right choice.
10. Travelling in Europe has become more convenient because a traveller has to change money only once in the Euro. This saves both time and money.
11. The European Central Bank has put an end to the hegemony of the German Bundesbank in the management of EMU monetary policy. All NCBs participate and follow monetary policy decisions taken by the ECB's general council.

EXERCISES

1. Explain the origin and working of the European Monetary System.
2. Trace the origin of the Euro in Europe. What has been its advantages?

3. What led to the Maastricht Treaty? Explain its main features and post-Maastricht developments in the European Monetary System.
4. Explain the formation of the European Monetary Union. What have been its merits?



THE GENERAL AGREEMENT ON TARIFFS AND TRADE (GATT)

1. INTRODUCTION

The General Agreement on Tariffs and Trade (GATT) emerged from the “ashes of the Havana Charter”. The world had experienced the rigours and problems of an extensive pattern of trade barriers in the 1930s and during the Second World War. So the Allied Powers thought of having a liberal world trading system after World War II. For this purpose, the International Conference on Trade and Employment was held in Havana in the winter of 1947-48. Fifty-three nations drew up and signed a charter for establishing an International Trade Organisation (ITO). But the US Congress did not ratify the Havana Charter with the result that the ITO never came into existence. Simultaneously, twenty-three nations agreed to continue extensive tariff negotiations for trade concessions at Geneva which were incorporated in General Agreement on Tariffs and Trade. This was signed on October 30, 1947 and came into force from January 1, 1948 when other nations had also signed it. On January 1, 1995, the GATT disappeared and passed into history when it was merged in the World Trade Organisation (WTO).

2. WHAT IS GATT?

The GATT was a multilateral treaty which had been signed by 96 governments known as “contracting parties”. Thirtyone other countries had applied GATT rules de facto. The GATT was neither an organisation nor a court of justice. It was simply a multinational treaty which covered 80 per cent of world trade. It was a decision making body with a code of rules for the conduct of international trade, and a mechanism for trade liberalisation. It was a forum where the contracting parties met from time to time to discuss and solve their trade problems, and also negotiated to enlarge their trade. The GATT rules provided for the settlement of trade disputes, called for consultations, waived trade obligations, and even authorised retaliatory measures.

The GATT was a permanent international organisation having a permanent Council of Representatives with headquarters at Geneva. Its function was to call international conferences to decide on trade liberalisation on a multilateral basis.

3. OBJECTIVES OF GATT

The objectives of the GATT were based on a few fundamental principles contained in the Code of International Trade Conduct.

1. To follow unconditional most favoured-nation (MFN) principle.
2. To carry on trade on the principle of non-discrimination, reciprocity and transparency.
3. To grant protection to domestic industry through tariffs only.
4. To liberalise tariff and non-tariff measures through multilateral negotiations.

To achieve these objectives, the Agreement provided for : (a) multilateral trade negotiations; (b) consultation, conciliation and settlement of disputes; and (c) waivers to be granted in exceptional cases.

The ultimate aim of establishing liberal world trading system was to raise living standard, ensure full employment through a steadily growing effective demand and real income, develop fully the resources of the world, and expand the production and exchange of goods on global level.

4. PROVISIONS OF GATT

The objectives and basic principles of the GATT could be viewed from its various articles which are discussed as under :

1. MOST FAVOURED NATION CLAUSE

To ensure non-discrimination, Article I dealt with unconditional most favoured nation (MFN) clause for all import and export duties. The principle of MFN implies that tariff preferences accorded by a country to another are extended to all others with which it has trade relations. It also forbade the contracting parties from granting any new preferences.

2. SCHEDULES OF TARIFF CONCESSIONS

The most fundamental component of GATT was a negotiated balance of mutual tariff concessions among contracting parties. The contracting parties committed themselves not to raise import tariffs above the negotiated rates “bound” in the schedules of concessions, as incorporated in Article II of the Agreement. The bound tariff rates negotiated were generalised to all contracting parties through the MFN principles. Thus the GATT emphasised reciprocal and mutually advantageous arrangements among contracting parties.

3. GENERAL ELIMINATION OF QUANTITATIVE RESTRICTIONS

Article XI of the Agreement prohibited or restricted the use of quantitative trade restrictions to trade. GATT encouraged countries to fix a ceiling on their import duties at the lowest possible level.

4. EMERGENCY SAFEGUARD CODE

Article XIX of the GATT provided emergency safeguard code. Under this, a country could impose a tariff or quota to restrain imports which “caused or threaten serious injury” to domestic producers.

5. EXCEPTIONS

Articles XX and XXI provided “General” and “Security” exceptions towards the prohibitions of import quotas by contracting parties. They were not directly related to the need to afford protection to local industries. The six important exceptions were : *One*, a country in balance of payments difficulties could introduce temporary quantitative restrictions, but under MFN rule these must apply equally to imports from all sources. However, they must be limited to the extent necessary to stop a serious decline, forestall a threatened decline in reserves, or achieve a reasonable increase in abnormally low reserves. *Two*, underdeveloped countries were allowed to apply quantitative restrictions to further their economic development, but only under procedures approved by the GATT. *Three*, quantitative restrictions could also be applied to agricultural or fishery products if domestic production of these articles was subject to equally restrictive production or marketing controls. *Four*, the GATT allowed a country to take action if products of other countries were imported at artificial low (dumped) or subsidised prices. *Five*, it also allowed a country to introduce temporary “safeguard” increases in protection when industries were injured by sudden increase in imports. *Six*, Article XXIV permitted countries to form customs or free trade areas among themselves, provided they were formed to facilitate trade between the constituent territories and not to raise barriers to the trade of other contracting parties.

6. RULES ON SUBSIDIES AND COUNTERVAILING DUTIES

The rules on subsidies and countervailing duties were incorporated in a separate code negotiated in the Tokyo round of the 1970s. Under these rules export duties on manufactured products were banned except for developing countries. Export subsidies for primary

products were restricted only by the condition that they could not lead to acquisition or more than an equitable share of world export trade. The Agreement also contained provisions that authorised importing countries to take compensating action against trading partners found to be dumping goods in their markets or increasing rates through exports subsidies. In the event of dumping, the importing country could impose anti-dumping or countervailing duties whenever and to the extent that the sale of imported goods took place in the importing country's market at less than its "normal value" and resulted in material injury to the domestic industry. Similarly, the Agreement authorised an importing country to impose offsetting countervailing duties on goods benefitting from production or export subsidies in the exporting country, when these resulted in material injury to the domestic industry. But such anti-dumping or countervailing duties should not result in net additional protection of the affected industry in the importing country. In other words, these duties could not be imposed at rates higher than were necessary to offset the margins of dumping or subsidisation.

7. SETTLEMENT OF DISPUTES

Under the GATT dispute settlement procedures complaints could be brought against actions that violated the rules or impeded the objectives of the General Agreement. The GATT relied on panels of three or five independent experts which made findings and recommendations for adoption by the GATT Council. This procedure which blended elements of third party adjudication and negotiation had successfully resolved disputes among contracting parties.

5. GATT "ROUNDS" OF GLOBAL TRADE NEGOTIATIONS

Since 1947, seven "rounds" (conferences) of global trade negotiations under the GATT had taken place, and the eighth, the Punta Del Este (Uruguay) started in September 1986 and concluded on April 15, 1994.

The first conference on trade negotiations was held at Geneva in 1947, the second at Annecy (France) in 1949, the third at Torquay (England) in 1950-51, the fourth at Geneva (Switzerland) in 1955-56, the fifth at Geneva between 1954-62 (Dillon Round), the sixth at Geneva between 1963-67 (Kennedy Round), and the seventh at Tokyo (Japan), between 1973-79. These conferences led to reduction or stabilisation of more than 60000 tariff rates, and to a number of non-tariff agreements among contracting parties having 80 per cent of the world trade.

Since these “rounds” are of academic interest, we shall briefly discuss the Uruguay round which ultimately led to the formation of the World Trade Organisation (WTO).

THE URUGUAY ROUND

The Eighth Round of GATT negotiations which began at Punta Del Esta in Uruguay in September 1986 ought to have been concluded by the end of 1990. But at the ministerial meeting in Brussels in December, 1990, an impasse was reached over the area of agriculture and the talks broke down.

The talks were restarted in February 1991 and continued till August 1991. On December 20, 1991, Aurthur Dunkel, the then Director-General of GATT tabled a Draft Final Act of the Uruguay Round, known as the Dunkel Draft Text. This was a “take-it-or-leave-it” document which was hotly discussed at various fora in the member countries through 1992 till July 1993 when the then Director-General, Sutherland relaunched the negotiations in Geneva. On August 31, 1993, the Trade Negotiations Committee (TNC) passed a resolution to conclude the Uruguay Round by 15 December. On December 15, 1993 at the final session, chairman Sutherland declared that seven year of Uruguay Round negotiations had come to an end. Finally, on April 15, 1994, 123 Ministers of member countries ratified the results of the Uruguay Round at Marrakesh (Morocco) and the GATT disappeared and passed into history and it was absorbed by the World Trade Organisation (WTO) on January 1, 1995.

The Uruguay Round of trade negotiations undertaken by the GATT since its establishment in 1947 had a wide agenda. The GATT originally covered international trade rules in the goods sector only. Domestic policies were outside the GATT purview and it operated only at international border. In the Uruguay Round, the GATT extended to three new areas, viz., intellectual property rights, services and investment. It also covered agriculture and textiles which were outside the GATT jurisdiction.

The Final Act embodying the results of the Uruguay Round of Multilateral Trade Negotiations comprises 28 Agreements. It had two components : the WTO Agreements and the Ministerial decisions and declarations. The WTO Agreement covers the formation of the organisation and the rules governing its working. Its Annexures contain the Agreements covering trade in goods, services, intellectual property rights, plurilateral trade, GATT Rules 1994, disputes settlements rules and trade policy review.

The Uruguay Round was concerned with the two aspects of trade in goods and services. The *First* related to increasing market access by reducing or eliminating trade barriers. This was met by reductions in tariffs, reductions in non-tariff support in agriculture, the elimination of bilateral quantitative restrictions, and reductions in barriers to trade in services. The *second* related to increasing the legal security of the new levels of market access by strengthening and expanding rules and procedures and institutions.

GAINS FROM URUGUAY ROUND

The GATT Secretariat estimated the following gains as the result of the Uruguay Round agreements and their implementation:

1. Income and Trade. The estimated gains are :

- (1) \$ 510 billion increase in annual world income by 2005;
- (2) World trade in *goods* higher by \$ 745 billion in the year 2005;

(3) Largest increase in world trade in goods by 60% in clothing, 20% in agriculture, forestry and fishery products, and 19% in processed food and beverages; and

(4) Increase in the exports and imports of the developing and transition (the erstwhile Communist East European and U.S.S.R.) economies as a group by 50 % above the average increase for the world trade as a whole.

2. Tariff Reduction. In the Uruguay Round developed and developing countries abandoned several of their restrictive and discretionary trade and industrial policy tools. As a result, there have been higher levels of tariff “bindings”. Binding means that they have ended the freedom to use the protectionist instruments of the past.

Tariff reductions and bindings had been as under :

(1) Tariff bindings in developed countries on industrial products increased from 78% to 99% and from 22% to 72% in developing countries.

(2) In agriculture, the bindings of the developed countries increased from 81% to 100% and of the developing countries from 22% to 100%.

(3) Tariffs on industrial goods in developed countries reduced from 6.3 to 3.9%.

(4) Progress in reducing tariff escalation which would benefit developing countries seeking to export more processed primary products.

(5) Above average tariff cuts for many products of export interest to developing countries.

3. Market Access. There were several areas in the Uruguay Round that related to market access. The important ones were tariffs, textiles and garments, and agriculture.

(1) *Tariffs*. In developed countries, industrial tariffs were reduced on an average to 4%. They are no longer significant barriers to trade. Developing countries also reduced their tariffs considerably. The overall tariff reductions in the Uruguay Round were an average of one-third. The value of industrial products which enter the developed countries duty free under MFN increased from 20% to 44%. The proportion of imports into developed countries from all sources with tariffs above 15%, declined from 7 to 5% and from 9 to 5% for imports from developing countries. The market access also increased through higher levels of tariff bindings on industrial products from 78% to 99% in developed countries and from 22% to 72% in developing countries.

(2) *Textiles and Clothing*. The Textiles and Clothing Agreement also forms part of market access. A major achievement of the Uruguay Round was the commitment to integrate this sector into a multilateral framework. The integration of this sector into the GATT Rules, 1994 would take place in four phases by January 1, 2005 when all products would be integrated. All MFA (Multi-Fibre Agreement) restrictions existing on December 31, 1994 were carried over to the WTO Agreement and would be removed when the products are gradually integrated into the GATT by January 1, 2005. As a result, the exports of textiles and clothing from developing countries would increase manifold, provided they are competitive.

(3) *Agriculture*. The Agriculture Agreement contained minimum market access commitment on agricultural products. It sought : (i) to open national markets to world competition by replacing non-tariff barriers with normal customs duties; (ii) to check overproduction in progressively reducing government aids, and (iii) to reduce subsidies alongwith the volume of subsidised exports.

First the estimates by the GATT Secretariat revealed that the minimum market access commitments on agricultural products subject to tariffication would create vast market opportunities for among such important products as 1.8 m. tons of coarse grain, 1.1 m. tons of rice, 0.8 m. tons of wheat, and 0.7 m. tons of dairy

products. *Second*, a 36% reduction in export subsidies and an 18% decline in domestic support to agricultural producers would further increase market access. Lastly, the increase of tariff bindings from 81% to 100% in developed countries and from 22% to 100% in developing countries, and no non-tariff barriers on agricultural products would further enhance market access in these products. Thus the reductions in tariffs on farm products and of subsidies to agriculture by the developed countries would make the exports of developing countries more profitable. The terms of trade would, in turn, be in favour of agriculture.

4. Rules and Disciplines^{*}. The Uruguay Round also strengthened multilateral rules and disciplines. The most important of these related to subsidies and countervailing measures, antidumping, safeguards and disputes settlement. Rules concerning dispute settlement have been made time bound, automatic and judicial in approach under the W.T.O.

5. TRIMs^{}**. Trade Related Investment Measures (TRIMs) prohibit investment measures that are inconsistent with national treatment or general elimination of quantitative restrictions. Developing countries have been given 5 years to phase out inconsistent TRIMs and developed countries 2 years. The TRIMs Agreement does not impose any obligation to provide access to any particular sector for foreign investment.

6. GATS. The achievement of the Uruguay Round was the General Agreement on Trade in Services which is the first set of multilaterally agreed and legally enforceable rules and disciplines relating to international trade in services. Services include financial, telecommunications and services of natural persons. The GATS requires non-discrimination by governments on the basis of Most Favoured Nation (MFN) clause and transparency in the form of publication of all relevant laws and regulations relating to service trade.

7. TRIPs. The Uruguay Round also contained the Agreement on Trade Related Intellectual Property Rights. It provides norms and

standards for copyrights and related rights, trademarks, geographical indications, industrial designs, patents, layout designs of integrated circuits, trade secrets and protection of undisclosed information. The Agreement allowed one year for developed countries, 5 years for developing and 11 years for least developed countries to change their laws for the implementation of TRIPs.

The TRIPs Agreement on patents would be able to tap the generic market in the USA and is expected to generate new business worth billions of dollars by the turn of the century and similar opportunities in the EEC for developing countries like India. They would also gain from the inflow of better technology and create a better climate for research and development in agriculture and pharmaceuticals. As a result, the quality of products available in the market will improve. For instance, if the farmers can get better quality seeds from multinationals even at higher prices and improve and increase their produce substantially, they stand to gain. Similar will be the case with national drug manufacturers in developing countries when they establish strategic linkages for development of their new discoveries in drugs.*
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6. GATT AND DEVELOPING COUNTRIES

Before the Kennedy Round (1964-67), developing countries gained very little from the GATT except that they could use quantitative restrictions to correct disequilibrium in balance of payments and benefitted from tariff reduction by developed countries. But the principle of reciprocity for trade concessions went against the developing countries, because they were unable to provide equivalent benefits to the developed countries. For instance, tariffs on total manufactured imports by developed countries averaged 11 per cent but were 17 per cent on those from developing countries. Moreover, GATT did not take any initiative on trade barriers on agricultural and tropical products of developing countries.

The concept of “special and preferential” treatment for developing countries was formally introduced into the General Agreement in 1957. Under it, negotiations would take in account their needs for a more flexible use of tariff protection to assist their economic development and the special needs of these countries to maintain tariffs for revenue purposes. On the recommendations of the Haberler Report, the GATT started an action programme in 1958 which recommended that the developed countries should reduce taxation and trade barriers on industrial and primary products of developing countries.

[*](#) For details, refer to the WTO Agreement.

[**](#) For details, refer to the WTO Agreement.

[*](#) For criticisms of the Uruguay Round Agreements, refer to “Critical Appraisal of Uruguay Round” in the next chapter.

In 1963, the contracting parties agreed on a more flexible attitude towards them. Accordingly, tariffs on some tropical products like tea and timber were reduced or eliminated by developed countries.

In 1965, a new Part IV on Trade and Development was incorporated into the General Agreement dealing with the principle on non-reciprocity for developing countries.

The Kennedy Round (1964-67) bestowed some benefits on developing countries when thirty-seven developed countries reduced tariffs on manufactured goods. But little attention was paid to the problems of developing countries.

In 1970, the Generalised System of Preferences (GSP) was introduced which permitted developed countries to grant unilateral tariff preference to developing countries. In June 1971, GATT waived the MFN treatment obligation for developed countries for a period of ten years to the extent needed to grant preferential treatment under the GSP which has since been extended further.

It was, however, in the Tokyo Round (1973-79) that a number of agreements on subsidies and countervailing duties covering agricultural, fisheries and forestry products; on customs valuation; on government procurement; on technical barriers to trade; on import licensing; on dairy products; on bovine meat; and on civil aircraft were reached. It was a triumph for developing countries for these agreements contained special provisions for developing countries. The Tokyo Round also led to trade concessions to the exports of raw, processed, and semi-processed tropical products of developing countries by developed countries.

However, trade in textiles and clothing has been subjected to special restrictions for nearly four decades by developed countries outside the GATT rules. Developing countries, being the principal exporters of these goods, have been at a disadvantage in this respect. The early 1960s witnessed the advent of the Short-term Arrangement on Cotton Textiles in 1961-62 and the Long-term Arrangement from 1962-73 restricted trade in cotton textiles on the plea that developed countries which are the principal importers, need special protection against "market disruption" by lower-cost developing country suppliers. The market disruption is claimed by developed countries under Article XIX of GATT. In 1974 the first Multifibre Arrangement (MFA I) was negotiated between the developed and developing countries for a period of four years which was renewed in 1978 (MFA II) and in 1982 (MFA III). MFA IV was renewed in 1986 for a period of five years. The renewed MFA was potentially more restrictive than the previous ones. It contained the right of the developed importing country to cut imports of specific products from particular developing countries on a selective basis when it was feared that too many imports capable of market disruption of local products might occur. The most significant change in MFA IV was that it extended its coverage from cotton, wool and man-made fibres to all vegetable fibres as well as silk mixed with cotton, wool or man-made fibres. For the first time, a return to GATT rules was written into the MFA. But it made no mention of phasing out the MFA or setting a time limit within which the final objective of application of GATT rules to trade in textiles would be attained. Under the Uruguay Round, textiles and

clothing would be integrated into a multilateral framework. The integration of this sector into the GATT Rules 1994 would take place in four phases by January 1, 2005, when all products would be integrated. As a result, all MFA restrictions would be removed by that date. For other benefits to developing countries under the Uruguay Round refer to the previous section on Uruguay Round.

Despite special and preferential treatment for developing countries provided in the GATT rules, they are being discriminated under the “escape clauses” and “safeguard” rules of the GATT. Moreover, the multiplication of trade restrictions outside the GATT rules, such as “voluntary export restraints”, and “orderly marketing agreements” go against the interest of developing countries and undermine the utility of the General Agreement under the Uruguay Round.

7. CRITICISMS OF GATT

There had been large scale evasion of GATT rules¹ by contracting parties over the years which made a mockery of the GATT.

1. From the beginning of the GATT, agriculture was treated as a special case where GATT rules hardly applied. Almost every developed country followed such agricultural trade policies which were inconsistent with the GATT rules. It was only at the Kennedy Round and the Tokyo Round that a few agreements were arrived at relating to agricultural and dairy products. But trade liberalisation for agricultural products has much less than for manufactures. Producers of agricultural products have been resorting to domestic support policies leading to surplus production that can be exported only with the help of heavy subsidies. For example, European countries have been exporting subsidised wheat, while the US has placed import restrictions on dairy products.
2. No doubt, developed countries have removed the majority of tariff barriers, yet they have been reluctant to abolish others. Rather, they have devised new trade restrictions under the garb

of “voluntary export restraints”, “low-cost suppliers”, “market disruption” etc. which are outside the GATT rules. They are applied against developing and state trading countries and Japan. For instance, such restrictions affect over 50 per cent of the French imports and 45 per cent of the United States.

3. The GATT's role was being undermined by concluding bilateral, discriminatory and restrictive arrangements outside the GATT rules. The EEC and the US have placed many import restrictions on innumerable products from Brazil, HongKong, Korea, and a host of other developing countries, besides Japan, after bilateral negotiations. At present, over 100 MFA type bilateral agreements are in force in the world which restrict exports of developing countries to the developed ones.
4. The increasing use of subsidies had been another important factor in side-tracking the GATT. This is because GATT's rule on subsidies are not explicit. The GATT rules permitted domestic subsidies but they led to retaliation if they damaged the trade interests of other countries. The result has been further worsening of open trade.
5. The “safeguard” rules under Article XIX of the GATT allowed the contracting parties to grant protection in case of need, such as injurious dumped or subsidised imports, or in severe balance of payments difficulties. But all temporary restrictions permitted under the escape clause have become permanent features of the world trading system.
6. The GATT rules in Article XXIV which permitted the formation of customs unions and free-trade areas had been distorted and abused. These rules left many ambiguities which seriously weakened the GATT. “They had set a dangerous precedent for further special deals, fragmentation of the trading system, and damage of the trading interests of non-participants.” As a result, the benefits of MFN rule failed to spread uniformly among the contracting parties.
7. The GATT being a mandatory body did not possess any mechanism to get its rules implemented by contracting parties. The procedure for dispute settlement consisted of a panel of

three to five independent experts whose recommendations had no legal binding. This was a serious weakness of the GATT.

1. [GATT Rules 1994](#) are included in WTO Agreement. They are explained in the next chapter.

It was perhaps due to these inherent loopholes in the working of GATT that as much as 80 per cent of world trade was being conducted outside the GATT rules.

Despite these criticisms, 125 countries operated under the GATT rules, while the remaining countries of the world benefitted from them under the umbrella of the MFN rule.

EXERCISES

1. How far the GATT was able to achieve its objectives? Discuss critically.
2. Discuss critically the objectives and achievements of GATT.
3. What did the GATT do for the developing countries? Examine critically.
4. Discuss the achievements of the Uruguay Round of the GATT.



THE WORLD TRADE ORGANISATION (WTO)

1. INTRODUCTION

The Uruguay Round of GATT negotiations concluded on April 15, 1994 at Marrakesh, Morocco. India, alongwith 123 Ministers besides the EC countries signed the Final Act incorporating the Eighth round of multilateral trade negotiations. The Final Act consists of : (1) the WTO Agreement which covers the formation of the organisation and the rules governing its working; and (2) the Ministerial decisions and declarations which contain the important agreements covering trade in goods, services, intellectual property and plurilateral trade. They also contain the dispute settlement rules and trade policy review system. The WTO Agreement is in fact the Uruguay Round agreements whereby the original GATT is now a part of the WTO Agreement which came into force from January 1, 1995.

2. THE WTO

The WTO is the successor to the GATT. The GATT was a forum where the member countries met from time to time to discuss and solve world trade problems. But the WTO is a properly established permanent world trade organisation. It has a legal status and enjoys privileges and immunities on the same footing as the IMF and the World Bank. It includes : (1) the GATT, as modified by the Uruguay

Round; (2) all agreements and arrangements concluded under the GATT; and (3) the complete results of the Uruguay Round.

There were 77 member countries of the WTO on January 1, 1995. Now there are 151 members. India is one of the founder members.

3. DIFFERENCE BETWEEN GATT AND WTO

The WTO is not an extension of the GATT but successor to the GATT. It completely replaces GATT and has a very different character. The major differences between the two are the following :

1. The GATT had no legal status whereas the WTO has a legal status. It has been created by international treaty ratified by the governments and legislatures of member states. It has a global status similar to that of the IMF and the World Bank. But unlike them, it is not an agency of the UN, although it has a 'cooperative relationship' with the UN.
2. The GATT was a set of rules and procedures relating to multilateral agreements of a selective nature. There were separate agreements on separate issues which were not binding on members. Any member could stay out of an agreement. Only those who signed the agreement could be penalised on default. The agreements which form part of the WTO are permanent and binding on all members. Action can be taken against any defaulting member by all the member states.
3. The GATT dispute settlement system was dilatory and not binding on the parties to the dispute. The WTO dispute settlement mechanism is automatic, faster and binding on the parties. The Dispute Settlement Board of the WTO in its first decision brought the mighty US to accept its verdict. Thus the WTO has teeth whereas the GATT was toothless.
4. The GATT was a forum where the member countries met once in a decade to discuss and solve world trade problems. There used to be long, protracted negotiating rounds which took decades to complete. The WTO, on the other hand, is a properly

established rule-based world trade organisation where decisions on agreements are time bound. The dateline can be extended only by consensus.

5. The GATT rules applied to trade in goods. Trade in services was included in Uruguay Round but no agreement was arrived at. The WTO covers not only trade in goods and services but also trade-related aspects of intellectual property rights and a number of other agreements.
6. The GATT had a small secretariat managed by a Director General. But the WTO has a large secretariat and a huge organisational set-up.

4. ITS STRUCTURE

The structure or organisation of the WTO is headed by the *Ministerial Conference* composed of representatives of all the members which meet at least once every two years. It carries out the functions of the WTO and takes actions necessary to this effect. It takes decisions on all matters under any of the Multilateral Trade Agreements. The Ministerial Conference is the supreme authority of the WTO.

There is the *General Council* composed of representatives of all the members to oversee the operation of the WTO Agreement and ministerial decisions on a regular basis. It also acts as a Dispute Settlement Body (DSB) and a Trade Policy Review Body (TPRB), each having its own Chairman. The General Council sits in Geneva on an average of once a month.

There is the Council for Trade in Goods, the Council for Trade in Services and the Council for Trade-Related Aspects of Intellectual Property Rights (TRIPs) which operate under the General Council. These Councils, in turn, have their subsidiary bodies. The Councils and subsidiary bodies meet as necessary to carry out their respective functions.

There is the Committee on Trade and Development, the Committee on Balance of Payments Restrictions and the Committee on Budget, Finance and Administration which carry out the functions assigned to them by the WTO Agreement, the Multilateral Trade Agreements and any additional function assigned to them by the General Council.

The *Secretariat* of the WTO is headed by the Director General. The Ministerial Conference appoints the Director General and sets out his powers, duties, conditions of service and terms of office. The Director General is appointed for a four-year term. He has four deputies from different member states.

The Director General appoints the members of staff of the Secretariat and determines their duties and conditions of service in accordance with the regulations adopted by the Ministerial Conference.

The Director General presents to the Committee on Budget, Finance and Administration, the annual budget estimates and financial statement of the WTO. The Committee, in turn, reviews the annual budget estimates and the financial statement and makes recommendations to the General Council for final approval. The General Council adopts the annual budget estimates and financial statements by a two-third majority comprising more than half the members of the WTO. The financial regulations relating to the scale of contributions and the budget are based on the rules and practices of the GATT.

The WTO continues the practice of decision-making by consensus, as followed under the GATT 1947. Where a decision cannot be arrived at by consensus, the matter at issue is decided by 2/3rd majority voting on the basis of "one country, one vote". But in the case of interpretation of the provisions of the agreements and waiver of a member's obligations, the majority required is 3/4th of the members. However, amendments relating to general principles, such as MFN treatment must be approved by all members.

5. ITS OBJECTIVES

In its Preamble, the Agreement establishing the WTO lays down the following objectives of the WTO:

1. Its relations in the field of trade and economic endeavour shall be conducted with a view to raising standards of living, ensuring full employment and large and steadily growing volume of real income and effective demand, and expanding the production and trade in goods and services.
2. To allow for the optimal use of the world's resources in accordance with the objectives of sustainable development, seeking both (a) to protect and preserve the environment, and (b) to enhance the means for doing so in a manner consistent with respective needs and concerns at different levels of economic development.
3. To make positive efforts designed to ensure that developing countries, especially the least developed among them, secure a share in the growth in international trade commensurate with the needs of their economic development.
4. To achieve these objectives by entering into reciprocal and mutually advantageous arrangements directed towards substantial reduction of tariffs and other barriers to trade and the elimination of discriminatory treatment in international trade relations.
5. To develop an integrated, more viable and durable multilateral trading system encompassing the GATT, the results of past liberalisation efforts, and all the results of the Uruguay Round of multilateral trade negotiations.
6. To ensure linkages between trade policies, environmental policies and sustainable development.

6. ITS FUNCTIONS

The following are the functions of the WTO:

1. It facilitates the implementation, administration and operation of the objectives of the Agreement and of the Multilateral Trade Agreements.
2. It provides the framework for the implementation, administration and operation of the Plurilateral Trade Agreements relating to trade in civil aircraft, government procurement, trade in dairy products and bovine meat.
3. It provides the forum for negotiations among its members concerning their multilateral trade relations in matters relating to the agreements and framework for the implementation of the results of such negotiations, as decided by the Ministerial Conference.
4. It administers the Understanding on Rules and Procedures governing the Settlement of Disputes of the Agreement.
5. It co-operates with the IMF and the World Bank and its affiliated agencies with a view to achieving greater coherence in global economic policy-making.

7. WTO AGREEMENT

The Agreement establishing the WTO consists of the following which embody the results of the Uruguay Round of the Multilateral Trade Negotiations:

1. Multilateral Agreements on Trade in Goods : GATT Rules 1994.
2. General Agreements on Trade in Services.
3. Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs).
4. Understanding on Rules and Procedures governing the Settlement of Disputes.
5. Plurilateral Trade Agreements.
6. Trade Policy Review Mechanism.

They are discussed as under :

1. MULTILATERAL AGREEMENTS ON TRADE IN GOODS

The general agreement on trade in goods defines the GATT 1994 and includes various agreements dealing with different aspects related to trade in goods.

(1) GATT 1994

The GATT 1994 includes GATT 1947 as amended up to January 1, 1995 when the WTO Agreement came into force. It also includes the provisions of specified legal instruments, the Marrakesh Protocol to GATT 1994 and the following understandings :

(a) Article II : 1(b) of GATT 1994. To ensure transparency of the legal rights and obligations, the nature and level of any “other duties or charges” levied on bound tariff items in the Schedules of concessions continue with effect from April 15, 1995.

(b) Article XVII of GATT. To ensure transparency of the activities of state trading enterprises, members are required to notify such enterprises to the Council for Trade in Goods for review by the working party atleast once a year and report to the Council.

(c) Understanding on Balance of Payment Provisions of GATT. Members imposing restrictions for purposes of balance should do so in the least disruptive manner. They should give preference to price-based measures like import surcharges, import deposits or measures which affect the price of imported goods. They should avoid the imposition of “new” quantitative restrictions and should publicly announce “as soon as possible” time schedules for the removal of restrictive import measures for purposes of balance of payments. The Committee on Balance of Payments Restrictions carries out consultations in order to review all restrictive import measures taken for balance of payments purposes.

(d) Article XXIV of GATT 1994. The Agreement on Customs Unions and Free Trade Areas clarifies and reinforces the criteria and procedures for the review of new or enlarged customs unions or free trade areas and for the evaluation of their effects on third parties. The Agreement also clarifies the procedure for any compensatory

adjustment in the event of contracting parties forming a customs union seeking to increase a bound tariff.

(e) *Understanding on the Interpretation of Article XXVIII.* Article XXVIII covers modification of GATT Schedules. It lays down new procedures for the negotiation of compensation when tariff bindings are modified or withdrawn.

(2) AGREEMENT ON AGRICULTURE

The Agreement on Agriculture relates to domestic subsidies, export subsidies (including volume of subsidised exports), minimum market access commitment, domestic support, sanitary and phytosanitary and food aid operations.

The Agreement seeks to open national markets to international competition by replacing non-tariff measures with normal customs duties that would be progressively reduced. Second, it seeks to check overproduction by progressively reducing government aids that encourage overproduction and hence surpluses which are either disposed of through export subsidies or destroyed. Third, it seeks new disciplines on export competition and reduction in subsidies alongwith the volume of subsidised exports.

(i) *Domestic Subsidies.* Domestic subsidies fall into two categories :
(a) *non-product specific subsidies* given for all crops which include subsidies given for fertilisers, water, electricity, seeds and credit; and
(b) *product-specific subsidies* given for specific crops, as in India in the form of minimum support price for some agricultural crops.

For the purpose of calculating total subsidies given to farmers, known as the Total Aggregate Measurement of Support or *Total AMS*, both types of subsidies mentioned above must be totalled together. Such total in any year, called the *Current Total AMS*, should not exceed 10 per cent of the value of total agricultural production in that year in the case of a developing country to be exempt from any obligation to reduce its subsidies. The subsidy is to be calculated at the international price for the commodity.

(ii) *Export Subsidies*. WTO members are required to reduce the value of *direct export subsidies* to a level of 36 per cent below the 1986-90 base period level over the *six-year* implementation period, and the quantity of subsidised exports by 21 per cent over the same period. In the case of developing countries, the reductions are 2/3rd those of developed countries over a *ten-year* period. But no reductions apply to the least developed countries.

(iii) *Minimum Market Access Commitment*. The minimum market access commitment applies to those countries that maintain restriction of various types on agricultural imports, and are, therefore, required to convert those restrictions into tariffs and reduce those tariffs by 36 per cent over the six-year period. Such countries are also required to allow a minimum market access opportunity of 3 per cent of their domestic consumption for foreign agricultural consumption for six years which will rise to 5 per cent after that period. These commitments apply only if a country is obliged to render its import controls in terms of tariffs. In the case of developing countries, tariffs on agricultural products are to be reduced by 24 per cent over a period of *ten years*. Least developed countries are not required to reduce their tariffs.

(iv) *Domestic Support*. Domestic support measures that have a minimum impact on trade, known as *green box* policies are excluded from reduction commitments. Such policies include general government services, such as in the areas of research, disease control, infrastructure and food security. It includes direct payments to producers in the form of income support, structural adjustment assistance, direct payments under environmental programmes and under regional assistance programmes.

In addition, there are other policies which are not to be included in the *Total Average Measurement of Support (Total AMS)* reduction commitments. They are direct payments under production limiting programmes, certain government assistance measures to encourage agricultural and rural development in developing countries and other support measures. These should make up only 10 per cent of the

value of production of individual products or of the total agricultural production in the case of developed countries and 5 per cent in the case of developing countries.

(v) *Sanitary and Phytosanitary Measures*. The application of sanitary and phytosanitary measures concern food safety, and animal and plant health measures. The agreement recognises that governments have the right to take sanitary and phytosanitary measures in order to protect human, animal or plant life or health. But they should not arbitrarily or unjustifiably discriminate between members where identical or similar conditions prevail. The agreement seeks to ensure that animal and plant health and safety measures do not serve as unwarranted trade barriers. The agreement lays down procedures and criteria for the assessment of risk and determination of appropriate levels of sanitary or phytosanitary protection.

(vi) *Food Stocking and Food Aid*. The agreement recognises that during the interim period least developed and net food-importing developing countries may experience negative effects with respect to supplies of food imports. It, therefore, sets out objectives with regard to the provision of food aid and basic foodstuffs in full grant form and aid for agricultural development. It also refers to the possibility of short-term financing of commercial food imports by the IMF and the World Bank.

A Committee on Agriculture has been established to monitor and review the implementation of the provision of the Agriculture Agreement.

(3) AGREEMENT ON TEXTILES AND CLOTHING

The objective of this Agreement is to secure the integration of the textiles and clothing sector into the GATT 1994. The integration of this sector would take place in four phases. *First*, on January 1, 1995 each party was integrated into GATT products from the specific list in the Agreement which accounted for not less than 16 per cent of its total volume of imports in 1990. In the *second* phase beginning

January 1, 1998, products which accounted for not less than 17 per cent of 1990 imports would be integrated. In the *third* phase beginning January 1, 2002, products which accounted for not less than 18 per cent of 1990 imports would be integrated. All remaining products would be integrated at the end of the transition period on January 1, 2005 in the *fourth* phase. Integration means that trade in *tops* and yarns, fabrics, made-up textiles products, and clothing will be governed by the General Rules of GATT. All MFA (Multi-Fibre Agreement) restrictions existing on December 31, 1994 have been carried over into the new Agreement and would be maintained until such time as the restrictions are removed or the products integrated into the GATT. In the case of non-MFA restrictions maintained by some members, they would also be brought within the purview of the GATT 1994 within one year of the coming of the Agreement into force or phased out progressively by 2005.

There is a specific transitional safeguard mechanism for products not yet integrated into the GATT 1994 at any phase. Action can be taken against an individual exporting country if it is found by the importing country that overall imports of a product were entering the country in such large quantities as to cause serious damage to the relevant domestic industry. Action under the safeguard mechanism can be taken either by mutual agreement following consultations or unilaterally but subject to the review of the Textile Monitoring Body. Safeguard restraints can be in operation for up to three years without extension or until the product is integrated into the GATT.

As part of the integration process, all members shall take such actions in the area of textiles and clothing as may be necessary so as to follow GATT Rules and improve market access and ensure the application of policies relating to fair and equitable trading conditions and avoid discrimination against imports.

(4) AGREEMENT ON TECHNICAL BARRIERS TO TRADE

This Agreement extends and clarifies the Agreement on Technical Barriers to Trade reached in the Tokyo Round. It seeks to ensure

that technical negotiations and standards, and testing and certification procedures do not create unnecessary obstacles to trade. However, it recognises that countries have the right to establish protection on human, animal or plant life or health or the environment. A Code of Good Practice for the Preparation, Adoption and Application of Standards by standardising bodies has been included into the Agreement.

(5) AGREEMENT ON TRADE RELATED ASPECTS OF INVESTMENT MEASURES (TRIMs)

It calls for the removal of all trade related investment measures within a period of five years. These measures are confined to quantitative restrictions and national treatment. In particular, they relate to such measures as investment in identified areas, level of foreign investment for treating foreign companies at par with national companies, export obligations, and use of local raw materials. It prevents the imposition of any performance clauses on foreign investors in respect of earnings of foreign exchange, foreign equity participation, and transfer to technology. It requires foreign investment companies to be treated at par with national companies. It prevents the imposition of restrictions on areas of investment. It requires free import of raw materials, components and intermediates.

The Agreement recognises that certain investment measures restrict and distort trade. It, therefore, requires mandatory notification of all non-confirming TRIMs and their removal within two years for developed countries, within five years for developing countries and within seven years for least developed countries. It establishes a Committee on TRIMs which will monitor the implementation of these commitments and report to the Council of Trade in Goods annually.

(6) AGREEMENT ON ANTI-DUMPING

Article VI of the GATT provides for the right of contracting parties to apply anti-dumping measures if dumped imports cause injury to a domestic industry in the importing member country. The revised

Agreement is an improvement over the Tokyo Round Agreement. It provides greater clarity, more detailed rules and the criteria to be taken into account for determining injury caused by dumped imports to domestic industry, the procedure to be followed in initiating and conducting anti-dumping investigations, and the implementation and duration of anti-dumping measures, and dispute settlement relating to anti-dumping actions taken by domestic authorities. Under the new rules, an anti-dumping investigation should be immediately terminated if the “margin of dumping” is less than 2 per cent of the export price or the volume of dumped imports from a particular country is less than 3 per cent of the total imports of that product subject to a ceiling of 7 per cent of all such dumped imports.

(7) AGREEMENT ON SUBSIDIES AND COUNTERVAILING MEASURES (SCM)

The SCM Agreement applies to non-agricultural products. It classifies subsidies into prohibitive non-actionable and actionable categories like the traffic lights—red, green and amber, respectively. The *prohibitive* (red) category includes subsidies with high trade-distorting effects. They are export subsidies and those that favour the use of domestic over imported goods. Developing countries having a per capita income of less than \$ 1,000, have been exempted from the prohibition of export subsidies. The *non-actionable* (green) subsidies are those that are not specific to an enterprise or industry or a group of enterprise or industries. Actionable (amber) industries are neither red nor green. They are actionable by a trading partner if its interests are adversely affected. It can seek remedy by having countervailing duties or follow the dispute-settlement procedures.

Developing countries have been exempted from certain subsidy practices such as investment subsidies, agricultural input subsidies generally available to low income or resource-poor farmers, and measures to encourage diversification from growing illicit narcotic crops.

The Multilateral Agreement on Trade in Goods also includes agreements on Customs Valuation, Pre-shipment Inspection, Rules of Origin, Import Licensing Procedures and Safeguards.

2. GENERAL AGREEMENTS ON TRADE IN SERVICES (GATS)

This Agreement covers all internationally traded services. Foreign services and service suppliers would be treated on equal national footing with domestic services and service suppliers. However, governments may indicate specific Most-Favoured Nation (MFN) exemptions which will be reviewed after 5 years, with a normal limitation of 10 years. It requires transparency which includes the publication of all relevant laws and regulations relating to services trade. International payments and transfers relating to trade in services shall not be restricted, except in the event of balance of payments difficulties where such restrictions will be temporary, limited and subject to conditions. Any liberalisation of trade in services would be progressive in character. It would be through negotiations at five-year intervals in order to reduce or remove the adverse effects of measures on trade in services and to increase the general level of specific commitments by governments.

The Agreement sets out special conditions relating to individual sectors. So far as the *movement of natural persons* is concerned, it permits the governments to negotiate specific commitments applicable to the temporary stay of people for the purpose of providing a service. It does not apply to persons seeking permanent employment or residence in a country.

In *financial* services, it establishes the right of governments to take appropriate measures for the protection of investors, depositors and policy holders, and to ensure the integrity and stability of the financial system. They came into effect 6 months after WTO came into force.

In *telecommunications*, the Agreement requires a Member to establish, construct, acquire, lease, operate or supply

telecommunications transport networks and services and make it available to the public. However, a developing country may place reasonable conditions on access to and use of public telecommunications, transport networks and services to strengthen its domestic telecommunications infrastructure and service capacity and to increase its participation in international trade in telecommunications services in co-operation with the International Telecommunication Union and the International Organisation for Standardisation.

The GATS will also apply to *aircraft* repair and maintenance services, marketing of air transport services and computer reservation services.

The governments have agreed to set up working parties on : (1) Trade in services and environment to examine and report, with recommendations, on the relationship between services trade and environment, including the issue of sustainable development. (2) Professional services to examine and report, with recommendations, on the disciplines necessary to ensure that measures relating to qualifications requirements and procedure, technical standards and licensing requirements in the field of professional services do not constitute unnecessary barriers to trade.

The GATS also contains consultations and dispute settlement and the establishment of a Council on Services.

3. AGREEMENT ON TRADE-RELATED ASPECTS OF INTELLECTUAL PROPERTY RIGHTS (TRIPS)

The TRIPs Agreement covers seven categories of intellectual property : (1) copyright and related rights; (2) trademarks; (3) geographical indications; (4) industrial designs; (5) patents which also include micro-organisms and plant varieties; (6) integrated circuits; and (7) trade secrets. We discuss them briefly as under :

(1) *Copyright and Related Rights*. The parties are required to comply with the Berne Convention for the protection of literary and artistic works. Computer programmes are included in literary works. Authors of computer programmes, performers on a phonogram, producers of phonograms (sound recordings) and broadcasting organisations are to be given the right to authorise or prohibit the commercial rental of their works to the public. A similar exclusive right applies to films. The protection for performers and producers of sound recordings are to be for no less than 50 years and for broadcasting organisations for at least 20 years.

(2) *Trademarks*. Any sign, or any combination of signs, capable of distinguishing the goods or services of one undertaking from those of other undertakings constitutes a trade mark. Such signs, in particular words including personal names, letters, numerals, figurative elements and combinations of colours as well as combinations of such signs are eligible for registration as trademarks. The owner of a registered trademark has the exclusive right to prevent all third parties not having the owner's consent from using in the course of trade identical or similar signs for goods or services. Initial registration, and each renewal of registration, of a trademark is for a term of no less than seven years. The registration of a trade mark is renewable indefinitely.

(3) *Geographical Indications*. Geographical indications refer to the identity of a good as originating in the territory of a Member, or a region or locality in that territory where a given quality or reputation of the good is essentially attributed to its geographical origin. Members are required to provide the legal means for interested parties to prevent the use of any indication which misleads the consumer as to the origin of goods and any use which would constitute an act of unfair competition. Additional protection is applied for geographical indications for wines and spirits.

(4) *Industrial Designs*. Industrial designs are protected for a period of 10 years. Owners of protected designs would be able to prevent the manufacture, sale or importation of articles bearing or embodying a

design which is a copy of the protected design for commercial purposes. The duration of protections available shall be for at least 10 years.

(5) *Patents*. Patents shall be available for any inventions, whether products or processes, in all fields of technology, provided they are new, involve an inventive step and are capable of industrial application. Patent owners shall have the right to assign, or transfer by succession, the patent and to conclude licensing contracts. The Agreement requires 20-year patent protection.

Inventions may be excluded from patentability if their commercial exploitation is prohibited for reasons of public order or morality. Further, diagnostic, therapeutic and surgical methods for the treatment of humans or animals, plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes may be excluded from patentability. However, members shall provide for the protection of plant varieties either by patents or by an effective *sui generis* system (breeder's rights) or by any combination thereof. These provisions shall be reviewed 4 years after January 1, 1995.

(6) *Integrated Circuits*. The TRIPs Agreement provides protection to the layout-designs (topographies) of integrated circuits for a period of 10 years. But the protection shall lapse 15 years after the creation of the layout-design.

(7) *Trade Secrets*. Trade secrets and know-how having commercial value shall be protected against breach of confidence and other acts. Test data submitted to governments in order to obtain marketing approval for pharmaceuticals or agricultural chemicals shall be protected against unfair commercial use.

Lastly, this Agreement refers to the controls of anti-competitive practices in contractual licenses pertaining to intellectual property rights. It provides for consultations between governments in order to protect intellectual property rights from being abused.

The Agreement requires a one-year transition period for developed countries to bring their legislation and practices into conformity for the implementation of TRIPs. Developing countries and the erstwhile East-European and U.S.S.R. countries would have a 5-year transition period and the least developed countries 11 years. Those developing countries which do not provide product patent protection have been given 10 years.

The Agreement also envisages the establishment of a Council for Trade-Related Aspects of Intellectual Property Rights to monitor the operations of the Agreements and Governments' compliance with it.

4. DISPUTE SETTLEMENT SYSTEM

The Understanding on Rules and Procedures Governing the Settlement of Disputes shall apply to consultations and the settlement of disputes between Members concerning their rights and obligations under the provisions of the Agreement establishing the WTO. For this purpose, a Dispute Settlement Body (DSB) will be established. The first stage in the settlement of disputes is the holding of consultations between the members concerned. If consultations fail and if both parties agree, the Director General of WTO offers good offices, conciliations and mediation. The complainant member can ask the DSB to establish a panel of three experts within 30 days. There is also the provision of the appellate review by a standing Appellate Body of seven members to be established by the DSB who will report to the DSB between 60-90 days. The DSB will adopt the report within 30 days which will be unconditionally accepted by the parties to the dispute.

5. PLURILATERAL TRADE AGREEMENTS (PTA)

The Plurilateral Trade Agreements consist of the Agreement on Trade in Civil Aircraft, Agreement on Government Procurement, International Dairy Agreement and International Bovine Meat Agreement. The first Agreement was done at Geneva in April 1979,

as subsequently modified, rectified or amended. The latter three Agreements were done at Marrakesh on April 15, 1994.

6. TRADE POLICY REVIEW MECHANISM (TPRM)

The TPRM aims to carry out reviews of the trade policies and practices under the Multilateral Trade Agreements and the Plurilateral Trade Agreements for the smoother functioning of the multilateral trading system. For this purpose, it envisages the establishment of the Trade Policy Review Body (TPRB). In order to achieve full transparency, each member shall report regularly to the TPRB about the trade policies and practices pursued by it. An annual overview of developments in the international trading environment having an impact on the multilateral trading system shall also be undertaken by the TPRB. The overview shall be assisted by an Annual Report by the Director General setting out major activities of the WTO and highlighting significant policy issues affecting the multilateral trading system.

8. CRITICAL APPRAISAL OF URUGUAY ROUND AND WTO AGREEMENT

The Uruguay Round took eight long years of negotiations by the contracting countries. The legal document comprising the Final Act of the results of the Uruguay Round of Multilateral Trade Negotiations contains 28 Agreements.

The Uruguay Round was larger in scope and coverage than the earlier Rounds and for the first time covered areas like services, agriculture, intellectual property rights and investments. It also emphasised linkages between trade policies, environmental policies and sustainable development through the WTO. The replacement of the GATT, as a discussion forum by the WTO, as a permanent world trade organisation, was a spectacular achievement of the Uruguay Round. The WTO contains not only the original GATT as amended by the Uruguay Round but also a number of new Agreements

discussed above.¹ These Agreements are likely to benefit the developing and least developed countries in the long-run, provided they receive full cooperation from the developed countries in their efforts towards globalisation. However, there are many loopholes in these Agreements which are likely to be to the disadvantage of the developing countries. We discuss them briefly in the case of each Agreement.²

1. Agriculture. The Agreement on agriculture would harm the interests of farmers in developing countries. It makes no distinction between subsidies to promote food security and self-reliance, and those meant to increase exports of farm products. As it allows *subsidy* only up to 10% of the value of production, it would become almost impossible for the governments of developing countries to provide price support to particular agricultural commodities. This is also the case of input subsidies which are allowed only to low income farmers. Thus all subsidies on such imports as fuel, electricity, fertilisers, transportations, seeds, etc. to farmers, and consumer subsidy in the form of public distribution system would have to be abolished. The reduction and removal of subsidies unaccompanied by a rational price policy would hit farmers in developing countries.

Again, the *free market access* and the removal of all restrictions on imports would adversely affect the farming community. Cheap imports of agricultural products would push farmers out of production. Prices of farm products in international markets are not determined by competition but by the corporations of the developed countries which procure and sell them. Moreover, they would increase foreign debt and worsen the balance of payments problem.

The Agreement lays down the application of sanitary and phytosanitary measures against the farm products of developing countries. These would be based on regulations established by such international organisations as the Codex Alimentarius which is not subjected to any democratic process. This agency might declare as

“safe” products of developed countries and as “unsafe” of developing countries.

These free trade and market-based agricultural systems cannot solve the problems of developing countries. The persistence of high domestic support to agriculture in many developed countries has been encouraging over production at high cost to them. The export subsidies are used to dispose of excess supplies in these countries which artificially lower the prices of such commodities in the global markets.

Further, the opening up of markets since the WTO Agreement has been in the developing countries while there has been little success in getting market access in developed countries. For instance, the share of agricultural exports from developing countries to Western Europe declined from 30.5% in 1990 to 28% in 1998. Market access to developing countries continues to be restricted by continuous protection by tariff and other barriers such as Sanitary and Phytosanitary standards. To safeguard the interest of farmers in developing countries, certain degree of protection in terms of moderately high tariffs and special safeguard clause are required to be added in the Agricultural Agreement for sustainable agricultural development in these countries.

[1.](#) Students may first study, “Gains from the Uruguay Round” in the previous chapter.

[2.](#) The following Agreements are discussed in detail in the previous section.

Despite these, the agricultural sector in developing countries is expected to gain much from this Agreement by generating export surpluses after meeting the growing domestic demand. They may gain from higher prices of such crops as foodgrains, cotton, etc. and by diversifying in the areas of horticulture, floriculture, dairy products and other allied activities with the increase in the tariff bindings to 100% in agricultural products. Further, the reduction of subsidies to

agriculture by the developed countries are expected to make the exports of developing countries more profitable.

2. Textiles and Clothing. This Agreement would benefit most developing countries during the transitional period. But the gains to them are likely to be delayed because of the long period of phasing out of the MFA due to two reasons. *First*, when a developed country takes certain types of textiles and clothing out of the MFA, it will apply on a non-discriminatory MFN (Most-Favoured Nation) basis to all exporting countries. *Second*, only 49% of all products would be integrated into the GATT on the last day of the 10-year transition period. This phasing out period is very long and the WTO may be pressurised to extend the transition period.

Further, the “product coverage” for the phasing out is so large that all items of textiles and clothing which are not covered by quotas are included in it. Thus there will be little phasing out of quota items till the end of the 10-year phasing out period.

Recently, the US has announced a four-stage quota-phaseout programme ending January 2005 under which 90 per cent of the restrictions on Indian apparel exports would actually remain till 2005. Till then, the Indian apparel exports will suffer. In the EU phaseout programme, one-sixth of Indian apparel exports would continue to face restriction till 2005.

3. TRIMs. The Agreement on TRIMs is a weak one. Article IV of the Agreement lays down that developing countries can deviate from the above provisions temporarily. The extent and manner of deviation would depend upon the interpretation of the contracting parties. Under this ‘escape’ clause, the right to regulate foreign companies and trade-balancing measures have in no way been curtailed if there are valid reasons such as adverse balance of payments.

These safeguards apart, the TRIMs agreement would remove restrictions on foreign investments. Though foreign direct investment is not mentioned, yet it is feared that MNCs would try to control high priority areas in developing countries.

Further, the TRIMs mentioned are those that are applied in a discriminatory manner on foreign owned enterprises when the same requirements are not applicable to the national enterprises. The Agreement also deals with discriminatory imports restrictions.

On the whole, the TRIMs Agreement has reduced the decision-making powers of national governments. For instance, they cannot specify local contents in domestic manufacturing and cannot restrict the percentage of imported inputs in its exported products or the export of a particular product.

4. GATT Rules. The GATT Rules 1994 pertaining to the phasing out of the *quantitative restrictions* (QRs) and preferences are vague. The use of QRs by developing countries to overcome their balance of payments difficulties has been rendered ineffective by providing it only for the least developed countries. In the case of developing countries, QRs would be eliminated and replaced by price-based measures. Only the least developing countries would impose QRs, but these would be viewed as temporary. Countries which impose such QRs would publicly announce as soon as possible, time schedules for their removal. But the developing countries have the right to use different duty rates for different goods so that they can discourage excessive imports of non-essential goods. This would enable developing countries to facilitate the import of essential inputs and capital goods while restricting the import of non-essential goods.

One developing country provides tariff preferences to another under the *Global System of Tariff Preferences* (GSTP). Similarly, a developed country offers tariff preferences to a developing country under the Generalised System of Preferences (GSP). These tariff reductions are over and above the tariff preferences provided to countries under the Most Favoured Nation (MFN) obligations of the WTO. As a result, for developing countries in general, preferential margins will totally disappear in some sectors. The OECD has estimated that Africa will lose by an average of 30 per cent through the erosion of their preferences by 2002. Exports of tropical products

from the African, Caribbean and Pacific (ACP) countries will suffer to the extent of 51 per cent.

Under the Uruguay Round Agreement, the developing countries have committed themselves to “bind” their industrial tariff lines by 72 per cent and 100 per cent for agricultural products. In the Subsidies Agreement, the developing countries have committed to eliminate subsidies having an impact on export prices with the result that they will be giving up the policy of export-led growth.

The GATT Rules on anti-dumping leave so much at the discretion of national governments that very few actions would actually qualify as their violations. Thus partly due to the GATT Rules and partly due to economic circumstances, anti-dumping and countervailing duties are being used for restricting trade by the USA, EEC and other developed countries.

Further, the non-technical barriers to trade like the environmental, health, and sanitary considerations can also act as non-tariff barriers in the case of developing countries. For instance, the US has tried to block shrimp exports from India by insisting that they should be caught with devices which do not net turtles. Obviously, Indian fishermen do not have the means to use such devices.

5. GATS. The GATS goes against the interests of the developing countries. It emphasises on the liberalisation of only those services such as financial, shipping, transport and communications, health, educational, professional and media services, in which the developing countries have a distinct advantage. By liberalising trade in services, the developed countries aim at seeking control over the production and use of services in developing countries.

The services sector in developing countries would have to face unequal competition from the vast resources which the firms of developed countries possess. Many developing countries have a comparative advantage in skilled and unskilled labour. But their free movement is controlled by stringent immigration laws of developed countries. But nothing has been proposed on this aspect of the

services sector because the developed countries stand to gain from the selective brain drain of developing countries.

6. TRIPs. The TRIPs agreement is patently discriminatory. It would favour the developed countries and go against the interest of developing countries for the following reasons:

It would increase the area of coverage under the patent system such as drugs, agriculture, plants and animals, etc. As developed countries and their MNCs have vast resources and facilities for R & D, they would be at an advantage to invest and patented processes and products. In all such cases, developing countries would have to pay royalties. The domestic prices of such goods, especially of drugs and medicines would increase and burden the consumers. There would be larger imports of patented raw materials and products by developing countries. Exports would receive a setback. Consequently, there would be worsening of the balance of payments.

Even the developed countries will be affected by TRIPs. According to an estimate, 90 per cent of the world's population would suffer on account of skyrocketing prices of pharmaceutical products if the TRIPs Agreement is implemented in full.

Many developing countries like India are engaged in R & D programmes in such critical areas as drugs, farm products, chemical, etc. which would come to a standstill. This is because after the transitional period of ten years, the patent law would change.

The acceptance of TRIPs agreement would necessitate wide-ranging amendments in the patents laws of developing countries.

A change in the patent laws of developing countries in accordance with the TRIPs agreement would further lead to brain drain which would prove costly for such countries.

The increase in the patent right to 20 years would again be detrimental to the interests of developing countries. It is only in the

developed countries that patent rights are of 20 years duration. Of course, developing countries would be given 10 years to change their existing laws. But the TRIPs agreement takes away this concession through the “classical pipeline protection” clause. According to this clause, patent applications for pharmaceutical and agricultural products would be accepted by the concerned authorities even after the agreement came into force from January 1, 1995, irrespective of whether the national law provided for the grant of product patents or not. For instance, in the case of a pharmaceutical product normally it takes 10 years from the date of filing a patent to market it. Consequently, patent protection to such a product would only be necessary from the year 2005 onwards. When the patent would be valid for only 20 years, nobody would make investments on new products.

Again, the Agreement provides for the grant of “exclusive marketing rights” in another country to an applicant for a maximum period of 5 years. The information concerning such innovation would be kept secret even without the grant of a patent. This provision is inimical to the interests of developing countries because it grants the patentee the right to prevent the use of his patent product or process being used for the export market. Thus the patented technology might be provided by an MNC for the exploitation of the local market of a developing country.

In the case of the working of a patent, the patentee would be given the freedom to import the product instead of setting up the product unit in the other country. The developed countries and their MNCs would not be under any obligation to transfer their technologies to the developing countries to satisfy the requirement of “working”. Rather, they would be used as markets for their products.

The inclusion of the clause “reversal of the burden of proof” is against all canons of justice. It would be for the producers of new products and processes to prove the non-infringement of their patent rights. It thus relieves the patentee from producing proof of the infringement of his process or product patent. This is arbitrary.

The TRIPs rules are also self-contradictory. They do not provide specific mechanism to achieve the objectives of sustainable development and environmental protection. The link between intellectual property rights and environment arises because some protected technologies directly affected the environment in a positive or negative manner. In fact, for technologies affecting environment, exclusion from patentability or a ban on their use or commercial exploitation would appear to be *prima facie* necessary. The TRIPs Agreement does not clarify whether members can ban the commercial exploitation of environmentally-injurious technologies while granting patent protection or whether this can give rise to non-violation type complaints.

According to Dr. Deepak Nayyar, the implications of the TRIPs agreement for the absorption, diffusion and adaptation of technologies, let alone innovation, in developing countries are far reaching. Much needed technologies may no longer be available at affordable costs. The emergence of domestic technologies may be pre-empted. Transfer of technology may slow down. The incidence of restrictive business practices by MNCs may increase. The implications and consequences of the TRIPs agreement suggest that the emerging international system for the protection of intellectual property rights is bound to be inequitable and inimical for the developing countries.

7. Dispute Settlement. The dispute settlement system of the WTO provides for adjudication of issues pertaining to the internal policies of the member countries. Such a measure poses a threat to the sovereignty of countries. For instance, if a request is made to the WTO for establishing a panel in case of a dispute, the WTO secretariat has been authorised to propose nominations on the panel. But the parties to the dispute shall not oppose nominations. In such a situation, the parties to the dispute shall have no say in decision-making. This tantamounts to interference in their sovereign rights. Moreover, the powerful developed countries like the US adopt cross-retaliatory measures under the guise of the dispute settlement mechanism which may go against the developing countries.

Further, there is the US Trade Law Section 301 which allows individual enterprises to compel the US government to investigate foreign trade practices that restrict or harm their trade interests. It is doubtful if the WTO dispute settlement system can resolve complaints arising out of the use of this law.

Conclusion. Despite these criticisms, the formation of the WTO and GATT Rules provide greater transparency, predictability and security in international trade relations to developing countries.*

9. WORKING OF WTO

The *first* Ministerial Meeting of the WTO was held at Suntec City in December 1996 at Singapore. The ministers of member countries adopted a consensus declaration reaffirming their faith in the multilateral trading system as the means to promote free world trade. In the declaration, they renewed their commitment to : (1) a fair, equitable and more open rule-based system; (2) progressive liberalisation and elimination of tariff and non-tariff barriers to trade in goods; (3) progressive liberalisation of trade in services; (4) rejection of all forms of protectionism; (5) elimination of discriminatory treatment in international trade relations; (6) integration of developing and least developed countries and economies in transition into the multilateral system; and (7) the maximum possible level of transparency.

The Ministers discussed some new issues of trade such as competition policy, labour standards, multilateral investment agreement and government procurement. In their declaration, they rejected the use of labour standards for protectionist purpose, agreed to establish separate working groups to examine the relationship between trade and investment, to study issues pertaining to the interaction between trade and competition, including anti-competitive practices, and to conduct a study on transparency in government procurement practices. They admitted that progress in negotiations on liberalising world markets in financial services,

maritime services and basic telecommunications had been unsatisfactory which would be completed by the end of 1997.

The only positive side of the Meeting was the launching of the Information Technology Agreement signed by 28 countries which aims at slashing tariffs on items of information technology to zero by the year 2000.

The *first* Ministerial Meeting was severely criticised for the manner in which its decisions were arrived at. There was a facade of consensus because most developing countries were marginalised in the decision-making process.

The *second* Ministerial Conference was held at Geneva where the developed nations made a commitment to reduce subsidies and trade distorting support in agriculture. Provision was made for special safeguard mechanism for the developing world and the concept of food security for them was accepted. The Conference also approved the Information Technology Agreement.

The *third*, Ministerial Conference was held at Seattle (US) in November-December 1999. The Conference was marred by many controversies between the developed and developing countries. A large number of member countries emphasised on a new round of negotiations, called the Millennium Round, covering a wide range of subjects like investment issues, competition policy, transparency in government procurement, trade facilitations, trade and labour standards, trade and environment, industrial tariff reduction, etc. The inclusion of non-trade issues like labour standards in the WTO agenda was vehemently opposed by the developing countries. The Conference failed due to large disagreements among the groups of developed and developing countries on certain disputed issues like textiles, agriculture and anti-dumping. As no consensus based conclusions could be reached on most of the issues, the Conference failed to kick off a new round of trade talks.

THE DOHA ROUND

The *fourth* round of trade negotiations under the WTO kicked off at Doha (Qatar) in November 2001. At the Conference, labour standards were removed from the core agenda of WTO. The main agenda of the Conference was to reduce global trade barriers covering agriculture, industrial goods and services largely for the benefit of developing and poor nations. But the Doha Development Round of trade talks slumped into dead lock with a dead line of 1 January 2005.

At the *fifth* Conference held at Cancun (Mexico) in September 2003, nothing specific came out of the negotiations. The meet failed because of disagreement on farm subsidies.

This was followed by a July 2004 meeting of WTO members to identify critical issues of international trade that formed the basis for negotiations at the next meet at Hongkong in December 2005.

At the WTO meet held at Hongkong in December 2005, 110 developing countries emerged as a powerful group against US, EU and other developed nations to fight for common interests of both the least developed and developing countries. Consequently, negotiations on the Doha Round collapsed in July 2006. Since then negotiations have been going on at Geneva to arrive at a consensus on the latest draft texts on four main issues relating to Agriculture. Non-agricultureal Market Access (NAMA), Services and Rules.

These issues are :

1. **Trade in Agriculture.** Developed Countries subsidise their agriculture more than developing countries. Farm subsidies are of two types : *first*, financial subsidies that support farmers to keep their domestic prices low compared with international prices. *Second*, export subsidies to encourage sales of farm produce abroad. Lower prices make their farm products more attractive in the global markets and make it difficult for developing countries to compete with them. The developing countries wanted farm export subsidies to be phased out and domestic subsidies on farm products to be reduced. But US and EU refused to do so without equivalent access in manufacturing

markets in developing countries. Developing countries like India and Brazil were willing to do so but not before US and EU cut their subsidies. India, on its part, argued that she had already cut specific tariffs from 55 per cent to zero. Brazil had to some extent also cut specific tariffs on cotton, sugar, soyabean, etc. Finally, both EU and US agreed to phase out all export subsidies by 2013, and phaseout 80 per cent of the subsidies by 2010.

To protect their farmers from a surge of cheap imports from developed countries, developing countries demanded special permission not to cut import duties on certain products on which a large number of marginal and small farmers depended. They also sought special safeguards to raise import duties on select products if their imports surge beyond a certain level.

Regarding the consensus on agriculture, there are still large number of issues on which there are disagreement while others are within known bounds or square brackets, and are still to be decided. For example, greater market access to the markets of developed countries for the goods of the developing countries and the issue of non-tariff barriers to agricultural trade, including phyto-sanitary conditions, and environmental issues.

2. Non-Agricultural Market Access (NAMA). Under NAMA, both developed and developing countries were to agree on a formula in order to reduce tariffs on such industrial goods as auto, consumer electronics, textiles, footwear, etc. The developed countries suggested the Swiss Formula which required the highest duty cuts in items with the highest tariff. This favoured the developed countries who viewed the rapidly growing middle class in developing countries as a profitable market for their industrial products. The developing countries did not agree to the Swiss Formula which was modified with lesser duty cuts. Still there was no consensus and the trade talks were suspended in July 2006.

3. Trade in Services. Trade in services is growing very fast and is the most competitive globally. WTO provides for four modes for trade in services. The *first* is cross-border services negotiations.

Developing countries like India have not been able to get a binding commitment under this. The Hong Kong Declaration talks of only “guidance” and not of any specific guidelines. The *second* mode is a plurilateral route to open markets for services. In this route, a few countries having common interests negotiate at a multilateral level to open their services sector. The *third* mode is the request and the *fourth* is the offer route. In the former route, countries make individual requests and in the latter route, they offer the services of their professionals. The last requires an economic test for the movement of professionals to other countries. The Hong Kong Declaration eased the need for this test. On the objection of some developing countries, the plurilateral route clause had been diluted.

The Doha Round after July 2006. After the suspension of Doha Round talks in July 2006, the Secretariat of WTO prepared three new draft negotiating texts and released them in February 2008. The trade ministers of India, Brazil, US, EU, Japan and Australia met in New Delhi in April 2008 to review and discuss the latest draft texts on the three main issues holding up the progress in the Doha Round negotiations.

The US accepted WTO proposals on farm subsidy cuts as a basis for negotiations. Until now, US had refused to accept a ceiling below \$23 billion a year, whereas the WTO compromise proposal suggested a limit of \$ 12.8 to \$16.2 billion a year on its farm subsidies. The main concern of developing nations is on Special Products and Special Safeguard Mechanism (SSM) for agricultural products. The Special Products are designed to allow developing countries to impose higher duties on their vulnerable products that affect the livelihoods of subsistence farmers and the food security of a nation, while SSM is designed to protect farmers from sudden import surges and price falls by applying an additional safeguard duty over and above the bound rate. The draft text proposed to allow member states to raise import duties only if the world prices are lower than domestic prices by over 30%. A price trigger of 30% was unacceptable to developing countries who suggested the price trigger at between 5% and 10%. Alongside, there were parallel

proposals for cuts in import tariffs in a range of 19% to 23% on industrial goods by 28 developing countries. But India and Brazil refused to go below 30% in order to protect their industrial growth.

So far as the new draft on NAMA was concerned, it was rejected by India and other developing countries. The text tried to use divided and rule policy among developing countries. It proposed a special set of rules for such countries as South Africa, Venezuela and Mexico that went against India and China.

There are two variables around which the negotiations had been going on. The first is the “coefficients” which mean the degree to which a country can reduce tariffs. A lower coefficient implies a higher cut in tariffs. The second is the “flexibilities” which mean the number of products being traded and the time frame over which the tariff cut will be done. The developing countries headed by India, sought flexibility to keep Special Products out of the duty cuts because such a flexibility will benefit them. These are agricultural products guided by indicators based on the criteria of food security, livelihood security and rural development. By keeping, Special Products out of tariff reduction would help farmers in developing countries in protecting their important crops from unfair global competition.

The new draft suggested “sliding scale” which envisaged a trade-off not within the flexibilities themselves to protect sensitive sectors but between the coefficients and flexibilities. This meant that if a country required higher flexibility to safeguard its sensitive sectors, it would have to resort to a larger tariff reduction.

Another new suggestion was to use the “average percentage cuts” instead of the mandatory cut in peak tariffs and high tariffs on export products of developing countries. But developing countries believe that such a proposal would allow the developed countries to have high tariffs on the exports of the developing countries. Thus the revised draft and suggestions of WTO are not likely to be accepted by the developing countries because they want tariff peaks on

products of their interest to come down which the developed countries are reluctant to negotiate at the Doha Round.

The new text on services trade required WTO members to make commitments to maintain current levels of market access and to create new market access.

However, there are minor differences over the trade in services between the developed and developing countries. The developing countries want increased market openings for their professionals in developed countries and the rationalisation of Rules text.

Conclusion. So far the Doha Round of trade negotiations have stalled with developing countries criticising farm subsidies in the developed countries and the developed countries arguing for lower tariff barriers for their industrial products and services and developing countries for their agricultural products. The trade talks held in Geneva collapsed on 30 July 2008 after India and other developing countries insisted that there should be enough scope to protect subsistence farmers and small industries from being submerged by a flood of cheap imports from the US and the EU.

EXERCISES

1. What is World Trade Organisation? Explain its objectives and functions.
2. Explain the main features of the Trade Related Intellectual Property Rights (TRIPs) Agreement under the Uruguay Round. What will be its effects on the developing countries?
3. Write notes on any two of the following agreements with their effects on developing countries under the Uruguay Round: Agreement on Agriculture; Agreement on Textiles and Clothing; General Agreement on Trade in Services (GATS).
4. Explain the main features of the World Trade Organisation. How does it differ from the GATT?

5. Discuss the WTO Agreement embodying the results of the GATT Uruguay Round.
6. Discuss the Doha Round of WTO.
7. Explain the working of WTO with special reference to the Doha Round.



THE UN CONFERENCE ON TRADE AND DEVELOPMENT (UNCTAD)

1. ORIGIN

The United Nations Conference on Trade and Development (UNCTAD) was established in 1964 following the growing dissatisfaction with the operation of such international institutions as the IMF and the GATT. These institutions favoured the developed countries and failed to tackle the special trade and development problems of the LDCs. The GATT, in particular, being committed to free trade, reduction of tariffs and abolition of preferences and import restrictions, did not pay any attention to proposals to stabilise commodity prices and give preferential treatment to LDCs in trade with developed countries.¹

The first step towards the creation of UNCTAD was taken when the UN General Assembly declared the 1960s as the United Nations Development Decade in December 1961. By so doing, it recognised the need for adopting measures by developed countries to bridge the gap between the rich and poor nations through trade and aid. It was on the recommendations of the UN Economic and Social Council in July 1963 for convening a conference on trade and development that the UN General Assembly convened the first UNCTAD at Geneva in 1964.

Accordingly, the UNCTAD I was held at Geneva in 1964. Since then such conferences have been held normally every four years : UNCTAD II at New Delhi, 1968; UNCTAD III at Santiago, 1972; UNCTAD IV at Nairobi, 1976; UNCTAD V at Manila, 1979; UNCTAD VI at Belgrade, 1983; UNCTAD VII at Geneva, 1987; UNCTAD VIII at Cartagena (Columbia), 1992; and UNCTAD IX at Midrand (South Africa), 1996.

2. ORGANISATION

The UNCTAD is a permanent organ of the UN General Assembly with its headquarters at Geneva. It has a Secretariat. UNCTAD VIII agreed upon a new organisational structure for the UNCTAD which has been in operation since April 1992. It includes the following :

Conference. The (UNCTAD) Conference consisted of 188 members as on April 1996.

Secretariat. The UNCTAD is run by a secretariat under the Secretary-General who is elected by the members. The organisational entities of the secretariat are the executive direction and management, the administrative service and inter-governmental support services. Other organisational institutions of the secretariat are detailed below.

[1.](#) LDCs refer to less developed or developing countries.

Trade and Development Board. An executive body known as the Trade and Development Board which meets twice a year in Regular Session and in Special Session as required. It takes policy decisions when the Conference is not in session. It is composed of 55 members elected from among the Conference Members on the basis of equitable geographical distribution.

Executive Committee. There is an Executive Committee of the Board which is composed of the permanent representatives of

member states deputed to the UNCTAD in Geneva. It meets periodically, usually every month.

Standing Committees. The Board is assisted in its functions by four new standing committees relating to commodities, poverty alleviation, economic co-operation among developing countries, and services. These Committees make studies and prepare reports from time to time, especially for the Conference to be held.

Special Committee. There is a Special Committee on Preferences.

Divisions. In response to the new orientation for working, resulting from UNCTAD IX, the UNCTAD secretariat has been reorganised to make it more performance-driven and to improve its quality of service. The secretariat now consists of four divisions (or groups) instead of nine previously. They are : (1) Division on Globalisation and Development Strategies ((DGDS); (2) Division on International Trade in Goods and Services and Commodities (DITGSC); (3) Division on Investment, Enterprise Development and Technology (DIEDT); and (4) Division on Services Infrastructure for Development and Trade Efficiency (DSIDTE). These divisions are responsible for helping the developing countries reap the benefits of globalisation to attain sustainable development.

In addition, the Secretary-General of the UNCTAD has established an office of the Special Coordinator for least developed, landlocked and island developing countries. Its aim is to prevent further marginalism of least developed countries in the world economy and to solve their specific problems.

The various committees and divisions have fixed terms. The divisions can bring in national experts so that their deliberations are enriched with national experience and empirical evidence. Non-governmental experts are also invited to participate both in the divisions and in the public sessions of the Board. They can also act in an advisory capacity to the Committees.

The Secretariat publishes an annual report based on the studies made by the Committees.

3. FUNCTIONS OF UNCTAD

The UNCTAD is expected to perform the following functions as laid down by the UN General Assembly :

1. To promote international trade between countries with different socio-economic systems, especially for accelerating the economic development of LDCs.
 2. To formulate principles and policies of international trade and related problems of economic development.
 3. To make proposals for putting the said principles and policies into effect, and to take such steps which may be relevant towards this end.
 4. Generally, to review and facilitate the co-ordination of activities of other institutions within the UN system in the field of international trade and related problems of economic development.
 5. To be available as a centre for harmonious trade related development policies of government, and regional economic groupings.
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4. OBJECTIVES AND ACHIEVEMENTS OF UNCTAD

UNCTAD is supposed to fulfil the following objectives which have been evolved gradually of the various conferences : (1) trade in primary commodities, (2) trade in manufactured goods, (3) development financing, (4) technology transfer, and (5) economic co-operation among developing countries. We discuss below the extent to which UNCTAD has been successful in achieving these objectives.

1. TRADE IN PRIMARY COMMODITIES

The UNCTAD has been active in the international commodity arrangements since its inception. LDCs want to expand the market for their traditional exports of primary commodities. Developed countries place restrictions on the exports of the latter in such forms as licensing, quotas, tariffs, health and packaging regulations, etc. and provide subsidies to domestic producers. Such trade restrictions tend to be higher for processed products than for unprocessed. Besides, exports from LDCs have been subject to wide fluctuations. Consequently, there has been a continual deterioration in the terms of trade of primary products of the LDCs in relation to the export of manufactured products from the developed countries.

Since UNCTAD II, the LDCs have been insisting on International Commodity Agreements (ICA) to stabilise the prices and markets for their exports of primary products. These agreements seek: (1) to stabilise the price of the commodity concerned so as to reduce price fluctuations and the resulting instability in the economies of the producing LDCs; and (2) to increase its price to compensate for the fast worsening in the terms of trade of the LDCs.

At UNCTAD IV (Nairobi), in 1976 it was proposed to have an Integrated Programme for Commodities (IPC), and to create a common fund for buffer stock financing. The proposal was to negotiate international commodity agreements to stabilise the prices of 18 commodities, ten of which were to be included in the initial buffer stock scheme. This programme led to the international commodity agreements on only cocoa (1981) and rubber (1980). UNCTAD VI (Belgrade) in 1983 also emphasised the importance of negotiating ICAs for ten commodities. Of the five agreements on commodities—coffee, cocoa, sugar, tin and rubber—only that for rubber is still in operation.

UNCTAD VII had a Subsidiary Committee on Commodities and UNCTAD VIII set up a Standing Committee on Commodities for making recommendations to the TDB.

The UNCTAD IV proposed for a \$6 billion Common Fund in 1976 to create and finance international buffer stock of ten storable

commodities. It was at UNCTAD VII (Geneva) that a Common Fund for commodities under the IPC became operational after a number of countries ratified it or expressed their intentions to do so. New pledges announced at UNCTAD VII raised its total pledged capital to 66.9 per cent \$ 4.7 billion fund, allowing it to become operational.

2. TRADE IN MANUFACTURED GOODS (GSP)

LDCs have strongly urged the developed countries to give them tariff preferences on their manufactured and semi-manufactured goods. At UNCTAD I, the G-77 urged the developed countries to grant a *Generalised System of Preferences* (GSP) to the exports of such goods to the developed countries. It was at UNCTAD II (New Delhi) in 1968 that all members unanimously agreed for the early establishment of a mutually acceptable system of generalised, non-reciprocal and non-discriminatory preferences. The objectives specified for the GSP were : (a) to increase the export earnings of LDCs; (b) to promote their industrialisation; and (c) to accelerate their growth rates. Thus the main aim of the GSP was to create a trade mechanism to enable LDCs to export without any tariff or other barriers to the developed countries and enable their products to compete on those markets with local production and thus encourage industrialisation and investment in the LDCs.

In June 1971, the GATT approved a waiver to MFN (*Most Favoured Nation*) clause which permitted developed countries to accord more favourable tariff treatment to goods imported from LDCs for a period of ten years. The EEC, Japan and Norway were the first to implement the GSP in 1971, followed by Denmark, Finland, New Zealand, Sweden, Switzerland and Austria in 1972, by Australia and Canada in 1974, and finally by the United States in 1976. At the conclusion of GATT's Tokyo round in 1979, the GSP was given legal status in the trading system through the 'enabling clause', allowing developed countries to give such tariff and other concessions favouring the LDCs. The UNCTAD undertook a general review of GSP in 1980 and agreed that the objectives had not been fully achieved and that the system should be continued beyond its initial

period. Accordingly, the scheme of GSP was renewed for a second term of 10 years in 1981. The GSP still continues. But a number of developed countries have unilaterally made changes into their trade laws which favour them.

The UNCTAD IX held at Midrand (SA) in May 1996 urged the developed countries to adopt a non-discriminatory and universal GSP for developing countries and it should be continued after the post-Uruguay round. It should be strengthened and procedures simplified and product coverage increased to cover more items of export of developing countries.

Under the GSP, most manufactured and semi-manufactured goods from LDCs to developed countries enjoy tariff reductions or exemptions from custom duties. A majority of developed countries grant duty free treatment for all or most products eligible for GSP. The United States, Sweden, Norway and Finland give completely duty free treatment under the GSP schemes. Japan and Switzerland allow generally duty free treatment with varying rates of duty upto 50 per cent lower than under MFN for individual products from LDCs. The EEC also gives duty free treatment for all industrial products eligible for GSP.

During the 1970s, constant efforts were made to expand the coverage of the GSP. But in the wake of global recession, rising protectionism and other obstacles in the way of increased access to international markets, the LDCs experienced a severe setback in their exports of manufactured and semi-manufactured products during 1980-82. Again during 1983-84, slower growth in developed countries and in world trade reduced the growth rate of exports of LDCs due to fall in international commodity prices. However, there has been a moderate recovery in export prices of manufactures of LDCs since 1985.

In 1993, about 50 per cent of products actually received preferential treatment, according to UNCTAD's 1993 review of the GSP. Within this total, the three major importing countries—the EC, Japan and US—accounted for more than 90 per cent. There were 14 GSP

schemes in operation in 29 preference giving countries, including the 15 members of the EC.

In April 1996, India extended for the first time tariff preferences to eight developing countries under the Global System of Tariff Preferences (GSTP). GSTP differs from GSP in that the former are provided by one developing country to another, while the latter are provided by a developed country to a developing one. They are over and above the tariff preferences provided to countries under the MFN obligations of the WTO. India had provided tariff preferences to 22 products and received preferences for 32 products from developing countries under the GSTP.

Limitations of GSP. There are, however, certain limitations of the scheme of GSP.

1. Despite efforts made to expand the coverage of the GSP, such important items as textiles, clothing, leather and leather products, and steel and footwear are excluded by a number of developed countries. These are the products in which the more industrialised developing countries have been specialising.
2. Many developed countries have evolved their own schemes which subject the preferences to a variety of restrictions. Some give preferential tariff treatment to those LDCs that abide by 'voluntary export restraint'. Others offer GSP treatment in the form of a tariff quota whereby a limit is set on a certain volume of imports which enters duty free into the developed country. But any volume in excess of this is subject to MFN duty. There are also limits on the value of imports that can receive preference treatment.
3. There is no long-term guarantee in the case of GSP concessions which can be altered or withdrawn at short notice. For example, the EEC and the USA withdrew GSP concessions from a number of more industrialised developing countries in 1981 on the plea that they no longer needed preferential treatments.

4. Among the LDCs, the benefits of GSP have been consistently concentrated among few of the more advanced developing countries. In 1980, eleven advanced developing countries accounted for 80 per cent of the total products of all LDCs. The position does not seem to have changed since then because the products covered by the GSP correspond to those actually by the eleven for export.

5. LDCs cannot become actual GSP beneficiaries until they have notified to the respective developed country the names of the bodies or authorities which are empowered to issue origin certificates. This prerequisite has not been fulfilled by a large number of LDCs. As a result, a significant number of preferential opportunities remain untapped for essentially administrative reasons.

Lastly, the scope for the extension of GSP is quite limited as product-producers in LDCs have a strong competitive position in the world markets.

3. DEVELOPMENT FINANCE

Right from the UNCTAD III LDCs have been voicing their concern over the growing problems of their balance of payments deficits and indebtedness. The UNCTAD III held at Santiago in May 1972 passed a resolution asking the IMF to work out a scheme for the link-up of Special Drawing Rights (SDRs) with development finance. This was essential because the SDRs had been linked with individual members' quotas in the IMF. Since the quotas of LDCs were small, they received a very small share of SDRs. By another resolution, the UNCTAD III asked the IMF to set up a Committee for Monetary Reform which should have as many members from LDCs as there were from the developed countries. The UNCTAD III was also called upon to provide for a close examination of the relationship between indebtedness and development and to recommend appropriate remedial measures. Moreover, the LDCs proposed at UNCTAD III that the one per cent target of development assistance agreed upon by the developed countries as part of the international development strategy should not include components distinct from assistance, such as private investment, and credits by suppliers and purchasers,

and that it should be not of reverse flows of interest payments. But UNCTAD III failed to achieve anything on all these issues.

The UNCTAD IV held at Nairobi in May 1976 also failed to solve the debt and development finance problems of LDCs. It passed three resolutions in this connection. The first dealt with the debt problems of LDCs and asked the developed countries to convert ODA debt into grants and establish a framework within which future debt problems could be solved. The second related to an effective system to international financial cooperation which suggested a number of measures to improve the working of the IMF in relation to LDCs. The third resolution concerned the establishment of multilateral guarantee facility. The Conference also appealed to developed countries to achieve 0.7 per cent target of development of LDCs. They should announce in advance ODA assistance which should be in the form of grants to the least developing countries, and larger concessional aid to other LDCs.

The UNCTAD V held at Manila in May-June 1979 passed a number of resolutions concerning finance and debt problems of LDCs. *First*, it asked the IMF to examine the overall size of its quotas in relation to the magnitude of world trade and balance of payments deficits of its members and to increase the quota share of LDCs. *Second*, the IMF was asked to apply conditionality in a flexible and appropriate manner taking into account the domestic social and political objectives and economic priorities of the borrowing LDC so as to encourage timely recourse to Fund's facilities, and a higher rate of utilization of its resources. *Third*, it stressed the IMF to find out ways to improve the terms and use of extended facility of LDCs. *Fourth*, it emphasized the IMF to improve and liberalise the existing compensatory facility. *Fifth*, it asked the IMF to consider an interest subsidy account for LDCs in order to make use of the supplementary financing facility. The Conference also set up an ad hoc inter-governmental group of experts to suggest reforms in the international monetary system to help LDCs to tide over their debt problems. Earlier, the developed countries had rejected the proposal of the G-77 to establish an International Debt Commission.

The UNCTAD VI held at Belgrade in June 1983 again passed resolutions relating to development finance, debt rescheduling, conversion of loans into grants of the least developing countries, and raising the official ODA assistance to 0.7 per cent by developed countries. It again stressed the need to bring structural reforms in the IMF and World Bank in the interest of LDCs.

UNCTAD VII held at Geneva in 1987 emphasised the need for providing more development finance, debt rescheduling and conversion of loans into grants for the LDCs.

UNCTAD VIII held at Cartagena in February 1992 had on its agenda “resources for development.” It appointed ad hoc working groups to deal with investment and capital flows, non-debt creating finance for development, and new mechanism for increasing investment and financial flows to developing countries. These working groups would prepare reports and submit them to the TDB.

The UNCTAD IX (May 1996) called upon the developed countries to provide debt relief to LDCs undertaking economic reforms.

Over the years, the various UNCTAD meetings have failed to solve the problems of debt and development aid of LDCs. At best, they have been forums for exchanging ideas and passing resolutions rather than getting the issues solved. As observed by *The Economist*, London, UNCTAD has lost the initiative on debt to the IMF and on development to the World Bank. The debt issue has been taken over by the IMF because it acts as a bank itself and has the confidence of western bankers and governments. Unlike UNCTAD, the World Bank has both money and effective advice to dispense to promote development.

4. TECHNOLOGY TRANSFER

It was at the UNCTAD at Nairobi in 1976 that the meeting pressed for measures which would strengthen the technology capability of LDCs. It was pointed out that better research facilities, training programmes and establishment of local and regional centres for

technology transfer would serve the purpose. The Conference also set up a group of experts to draft a code of conduct of technology transfer. Besides it urged the revision of international patent system.

The UNCTAD VI held at Belgrade in June 1983 emphasised the need for transfer of technology to LDCs in order to promote their speedy and self-reliant development. The Conference discussed and approved a policy paper, "A Strategy for the Technological Transformation of Developed Countries" prepared by the UNCTAD secretariat. The study noted that during the post-World War II era many LDCs attained political independence but it has been severely constrained by their economic and technological dependence on the developed countries. The LDCs are weak partners in an unequal world. Despite considerable progress in LDCs during the past three decades, technological gap between them and the developed countries has widened. The study emphasised the need to attain technological transformation of LDCs by reducing their external technological dependence and strengthening their national capacity for autonomous technological development. This requires reduction in its dependence on the agricultural sector and on primary production in general. The spearhead of the strategy for technological transformation has to be an accelerated tempo of industrialisation. Processing of primary products, before marketing them will widen industrialisation through diversification. Since technology is embodied both in capital goods and human skills, technological transformation requires the rapid enlargement of the domestic ability to produce the required capital goods and skilled manpower.

Policy formulation related with the transfer and development of technology vary from country to country. Therefore, an international code of conduct on the transfer of technology has been under negotiations in UNCTAD. The code of conduct will provide important elements for the design and development of national policies for technology transfers.

UNCTAD VII passed a resolution relating to the transfer of technology to LDCs on the lines of the Policy Paper approved at UNCTAD VI. UNCTAD VIII set up an ad hoc working group relating to inter-relationships between “investment and technology transfer” which was to submit its report to the TDB within two years.

The UNCTAD IX (May 1996) urged the developed countries to give developing countries access to high technology crucial to their development.

The UNCTAD has simply laid down the broad principles for transfer of publicly funded technologies at the inter-governmental level. It may facilitate the process of technology transfer by freer access to sources of information, cutting down barriers to freer flow of technology, etc. No doubt governmental policies have a significant role to play in this direction, but the fact remains that technology transfer will have to be at industry levels. This is because much of the technology in developed countries is closely held by MNCs.

5. ECONOMIC COOPERATION AMONG LDCs

UNCTAD II held at New Delhi in 1968 emphasised for the first time the need for promoting international co-operation and self-reliance among the LDCs. UNCTAD VI held at Belgrade in June 1983 again emphasised the need for co-operative efforts among LDCs through widening the scope of preferential trading arrangements, harmonising industrial development programmes through infrastructural facilities, particularly in respect of shipping services and simple payment mechanism under common clearing system.

The first step towards economic co-operation among LDCs was taken at the ministerial meeting of G-77 held at New York in October 1982 when it was decided to launch the Global System of Tariff Preferences (GSTP). In 1984, the UNCTAD organised two meetings where intensive technical level discussions were held in drafting the ground rules procedures for GSTP negotiations. Another ministerial conference held at New Delhi in July 1985 decided to conclude the first round of GSTP negotiations in May 1987, on the eve of

UNCTAD VII. GSTP is a major initiative of developing countries to expand mutual trade through grant of tariff and non-tariff concessions and other measures such as long-term contracts under the UNCTAD.

Besides increasing trade, UNCTAD VI recommended the initiation or strengthening of a number of cooperative measures in the fields of research and development, design and engineering among LDCs. Harmonisation of LDCs policies, rules, regulations, laws and practices governing technology in all its aspects, training and exchange of personnel, including cooperative exchange of skills, establishment of preferential arrangements for the transfer and development of technology, technological cooperation in specific areas and sectors of critical importance. The possibilities of cooperation of technological transfer among LDCs exist for particularly the following four sectors: capital goods, human skills, energy, and food production and processing. However, possibilities in other sectors of their economies cannot be ruled out.

The UNCTAD V held at Manila in May-June 1979 passed a resolution relating to liner shipping. Among other things, the resolution included provisions aimed at enhancing the position of LDCs as both providers and users of liner shipping. It urged the LDCs to cooperate among themselves in pooling information regionally on cargo movements and service requirements, and to ensure the establishments or strengthening of national and regional shippers' organisations. The Belgrade Conference (UNCTAD VI) entrusted the UNCTAD secretariat with the task of carrying out studies on ship and port finance, structure of the global shipping industry, policies and practices of governments in respect of investment in and support of shipping etc.

UNCTAD VI also hinted at a simpler payments mechanism under a common clearing system. This is another area which can provide considerable encouragement to co-operation among LDCs. Further, the developed countries insist that the existing international institutions like the IMF and World Bank should be strengthened

financially so that they may provide larger aid to LDCs to tide over their balance of payments and debt problems. But the LDCs call for the setting up of a new financial institution which should exclusively cater to their special financial requirements in fields such as joint ventures, development projects, export credit, commodity price stabilisation, and regional payments support, and long-term investment to expand trade in food and primary products, and for storage, processing and transport. So far no progress has been made in this direction.

UNCTAD VII also stressed the importance of economic co-operation among developing countries on the lines of the previous conference. It was UNCTAD VIII which set up a new Standing Committee on Economic Co-operation among developing countries to study and report on all facets of cooperation to the TDB.

There are many factors which stand in the way of economic co-operation among the LDCs. The economies of LDCs are highly competitive in nature. They have limited import capacity, inadequate credit facilities, chronic foreign exchange shortage, and prejudice against the goods traded among themselves. Consequently they prefer to trade with developed countries even though goods manufactured by LDCs are cheaper and of high quality. However, some of the LDCs suffer from other limitations which prevent them from entering into trade with other LDCs. These are technological backwardness, shortage of key inputs, high cost of production, lack of competitive strength and weak marketing structure. The various problems listed above can be overcome by mutual help and trust among LDCs of region and working in close cooperation among themselves. UNCTAD is a forum where they can meet, discuss and formulate plans for regional economic co-operation.

6. NEW ISSUES

During the late 1980s, a large number of developing countries changed their economic policies to a market orientation, and began the process of structural adjustments involving exchange rate alignments and outward-looking liberalisation of their economies. In

the early 1990s, socialist countries of Eastern Europe and the Soviet Union had disintegrated and adopted the market-oriented reforms. It was against this background that UNCTAD VIII met at Cartagena in February 1992. The proceedings at UNCTAD VIII emphasised global cooperation rather than confrontation, the need for negotiations and promotion of knowledge-based policies. UNCTAD VIII had five key areas on the agenda : resources for development, international trade, technology, services, and commodities. In order to evolve consensus on these issues, the conference decided that the focus should be on their analysis rather on negotiations. It was, therefore, agreed that the UNCTAD should have a new structure on the lines of the OECD secretariat so that it could devote itself to the analysis of issues which was set up in April 1992, as detailed above. Thus UNCTAD VIII focussed on new issues such as services and sustainable development and on its new organisational structure.

The UNCTAD IX held at Midrand (S.A.) in May 1996 urged its members to provide more resources for sustainable development and debt relief to developing countries and to carry on the issues relating to technology, services and commodities in the light of the WTO Agreement 1994 of the GATT.

5. AN APPRAISAL OF UNCTAD

The UNCTAD was set up in 1964 as an international forum to discuss and analyse trade related development issues which might lead to negotiations between the developed countries and LDCs. Since the UNCTAD is a conference, it added a group approach to negotiations. Till UNCTAD VII, there were four groups : Group A of the developed countries, the Group of 77 of developing countries (G-77), Group C of China, and Group D of the socialist countries of Eastern Europe. These groups were pitted against each other in a giant conference invariably every four years. Now there are only two groups—the developing and developed countries.

During the 1970s, with the breakdown of the Bretton Woods system, oil crisis, inflationary pressure and accumulation of debt by many LDCs, the UNCTAD became a large debating forum between the North and the South.

During the 1980s some of the newly industrialised developing countries had impressive growth rates, while others had disappointingly low growth rates. The developing countries experienced declines in their commodity prices and terms of trade. Their debts mounted and international aid flows were inadequate. On the other hand, many developed countries faced recessionary tendencies. Consequently, there was nothing but hot air at the UNCTAD conferences. There was disillusionment among the developing countries because of the hardening attitude of the developed countries towards almost every issue raised by the former at the conferences. As pointed out by *The Economist*, London, the UNCTAD was “a political circus”. So each UNCTAD was a non-event that led to its failure to come to any agreement.

Despite long debates and disagreements at each conference, the UNCTAD has played a key role in the emergence of GSP, a maritime shipping code, commodity agreements to stabilise the volatile prices of primary product exporters, special international programmes to help the developing countries, and international aid targets.

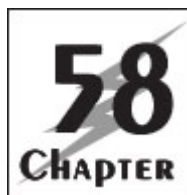
CONCLUSION

The UNCTAD secretariat has been doing yeoman's service to LDCs through its annual and other reports which highlight their trade, finance and debt problems vis-a-vis developed countries. In fact, the detailed reports prepared by it before each conference have created a new climate of thought with regard to the problems and needs of LDCs. These are again discussed at other international forums such as the IMF, World Bank, OECD, EEC, NAM, etc. Often, positive measures follow such as larger aid by the World Bank and OECD, giving more trade concessions by EEC to LDCs, etc. As such the UNCTAD reflects the sentiments, hopes and aspirations of LDCs in a

world still dominated by the developed countries, both politically and economically.

EXERCISES

1. Discuss briefly the aims and objectives of UNCTAD. To what extent have these conferences been successful in promoting trade and development of the developing countries?
2. Explain the functions of UNCTAD. To what extent it has been able to achieve its objectives of promoting trade and development of the less developed countries.
3. What is the generalised system of preferences (GSP)? How far it has been successful in achieving its objectives?



THE ASIAN DEVELOPMENT BANK (ADB)

1. ORIGIN

During the 1950s, it was strongly felt that there should be a bank for Asia like the World Bank to meet the development needs of this region. This view was suggested for the first time at the Ministerial Conference on Asian Cooperation held at Manila in December 1963. The Conference constituted a working group of experts which submitted its report to the UN Economic Commission for Asia and Far East (ECAFE) at its session held at Wellington in March 1965. It was on the basis of this report that an Agreement Establishing the Asian Development Bank was drafted and adopted at the Second Ministerial Conference on Asian Economic Cooperation at Manila in November-December 1965. By January 1966, 33 countries had signed its Charter and the Asian Development Bank was set up on December 19, 1966 with its headquarters at Manila in the Philippines.

2. ITS OBJECTIVES

The aim for the establishment of ADB was to supplement the work of the World Bank in Asia. Its objectives are :

1. To promote public and private investment for economic development in the ECAFE region.

2. To utilise the available resources for financing of economic development. To achieve this, it gives priority to those regional and sub-regional and national projects and programmes which contribute more effectively to the harmonious growth of the entire region, especially of the smaller and less developed members of the region.
 3. To help the regional members in the coordination of their plans and policies for economic development to enable them to achieve a better utilisation of their resources.
 4. To provide technical assistance for the preparation, financing and implementation of projects and programmes for economic development, including the formulation of specific projects.
 5. To co-operate with the United Nations and its organs and subsidiaries, including, in particular, the ECAFE and other international institutions and organisations and national entities in the investment of development funds in the region.
 6. To undertake all such activities and provide such services which may fulfil the above objectives.
-

3. ITS MEMBERSHIP

The membership of ADB is open to the following : (1) Members of the ECAFE; (2) associate members of ECAFE; (3) other countries of the ECAFE region which are the members of the United Nations or any of its specialised agencies; and (4) developed countries outside the ECAFE region which are the members of the UN or any of its specialised agencies. It has a membership of 56 countries at present. Any country can become its member when two-third members of the Board of Governors cast their vote in its favour.

4. ITS MANAGEMENT

The ADB is managed by a President, Vice-President, and a Board of Governors along with an administrative staff. The President is the administrative head of the Bank. The Vice-President performs the

duties of the President in his absence. Each member country nominates a Governor and an Alternate Governor to the Board of Governors. At least one meeting of the Board of Governors is held every year. The Board of Governors has delegated its executive powers to the Board of Directors. The Board of Directors consists of ten members of whom seven belong to regional countries and three to non-regional countries. The Board of Directors takes all decisions relating to the Bank, passes its annual budget and presents the accounts of the Bank to the Board of Governors for approval. There are certain functions which only the Board of Governors has to perform. They are : (a) entry of new members; (b) change in the authorised capital of the Bank; (c) election of the President and administrators; and (d) amendment in the Charter of the bank.

5. ITS FINANCIAL RESOURCES

The Bank started its operations with an authorised capital of \$ 2.9 billion which was raised to \$ 25 billion in 1992. Out of this, 50 per cent had been contributed by Japan and the remaining by member countries. To increase its resources, the Bank issues debentures and accepts deposits from its special funds. To augment its resources further, the Bank borrows from the capital markets of the world.

6. ITS FUNCTIONS

The ADB performs the following functions :

FINANCIAL ASSISTANCE

The Bank provides financial assistance in the form of grants and loans. It gives three types of loans : project loans, sector loans, and programme loans. Project loans are tied to specific projects. Sector loans are given to a number of related projects in a given sector. Programme loans cover more than one sector and relate to the

implementation of a policy or programme for bringing about certain changes.

The Bank advances loans out of its Ordinary Funds Reserve and Special Funds Reserve. The Ordinary Funds Reserve refers to the Bank's ordinary capital resources OCRs out of which direct loans are given for development projects or specific projects. These consist of the financing of foreign exchange or local currency component of the cost of specific projects. The Bank also lends to development banks of member countries for relending to specific projects. All direct loans are "hard loans" for a period of 20 years repayable within 15 years with a five-year grace period. The interest rate is determined in accordance with ADB's poolbased variable lending rate system for US dollar loans.

For sector lending, the Bank has established Special Funds such as the Asian Development Fund, Multipurpose Special Funds and Agriculture Special Fund. Loans out of these funds are given for projects of high development priority for longer periods and at lower rates of interest than for ordinary loans. These are called "soft loans". The Special Funds are different from the Bank's ordinary capital resources. The Bank contributes 10 per cent of its paid-in capital to these funds and the remaining amount comes as donations from its members countries such as America, Britain, Germany, Canada, Switzerland, Denmark, India, Pakistan, China, etc. For lending out of Special Funds, the sanction by two-thirds of the total number of Governors of the Bank is required.

In short, the ADB sanctions for the following types of loans : (1) To development finance institutions on the guarantee of the government ; (2) to small and medium enterprises on the government's guarantee; (3) to private enterprises in the form of equity and loans without government guarantee; (4) to strengthen financial institutions and capital market; and (5) to public sector enterprises for privatisation without government guarantee.

The ADB grants loans on the basis of certain *criteria*. At the time of evaluating projects that it proposes to finance, the Bank considers

their economic, technical and financial feasibility, their effects on the general activity of the concerned country, their contributions to the removal of economic bottlenecks, and their capacity to repay the loans. In granting loans to the various types of projects, the ADB Charter does not impose any restrictions. Even the minimum and maximum limits of loans are left open to be decided by the Bank on merits and viability of the projects. Since July 1990, it charges 6.53% interest rate annually on dollar loans.

TECHNIAL ASSISTANCE

The ADB also provides technical assistance to member countries out of the Technical Assistance Special Fund. The technical assistance is provided to the members in ECAFE region through their governments, agencies, regional institutions and private firms. It may be in the form of grants or loans or both. The Bank's technical assistance has two main objectives : *first*, to prepare and finance and implement specific national and/or regional development plans and projects; and *second*, to help in the working of existing institutions and/or the creation of new institutions on a national or regional basis in such areas as agriculture, industry, public administration, etc. The Bank also provides advisory services under its technical assistance programme. It sends its own experts and even hires consultants from other institutions on short and long missions for setting up or reorganising institutions for project implementation in member countries.

SURVEYS AND RESEARCH

One of the functions of ADB is to conduct surveys and research in order to formulate policies for the future and to promote regional economic integration. It brings out an annual report in which it highlights the achievements, prospects and failures relating to the economic development of the member countries of the ECAFE region and also suggests measures to solve their problems.

POVERTY REDUCTION

Since the 1990s, Bank's greater emphasis has been to promote employment and reduce poverty through improved efficiency, sustainable pro-poor economic growth and better development opportunities for the poor. In promoting economic growth, the Bank stresses the importance of increasing productivity. Productivity improvement depends on new investments, the efficiency with which new and existing capital are used and incorporation of technological changes. The Bank encourages domestic resource mobilisation to finance new investments, private sector development and public sector reform to improve efficiency. The Bank targets resources where private sector provision is inadequate and seeks to involve the private sector in services formerly left to the public sector. The ADB now pays more attention to human resource development, poverty reduction, social infrastructure development, urban environmental improvement and development, comprehensive economic and structural reforms, etc.

7. ITS PROGRESS

The ADB was set up in 1966. For the first time, it sanctioned loans amounting to \$ 41.6 million in 1968. The Bank has been providing assistance in the fields of agriculture and agro-based industries, energy, industry and non-fuel minerals, development banking, transport and communications, water supply, urban development, education, health and population planning.

8. INDIA AND ADB

The ADB commenced lending to India in 1986, though it has been a founder member of the Bank. In the earlier period, loans to India were mainly for infrastructure sectors such as power, roads, ports, etc. In recent years, the emphasis has shifted to public resource management programme, urban environmental improvement and development, health and nutrition, and housing finance to reduce poverty. Since 1966, India had received 65 loans amounting to \$ 5.8

billion at the end of 2000 for infrastructure, energy and financial sectors.

9. ITS EVALUATION

The ADB has been playing an important role in providing finance in the form of loans and grants to its member developing countries for their development. There have been two factors for the increase in the Bank's lending operations. *First*, at the time of its establishment, India had agreed not to get loans from the Bank so that smaller developing member countries might be given larger aid. But when China became its member and started getting assistance from the Bank, India followed it. This has led to increase in the Bank's lending operations. The *second* factor has been the introduction of non-project loans through the Bank's concessional window, the Asian Development Fund (ADF). China and India do not receive 'soft' loans from it which carry a nominal rate of interest.

SOME WEAKNESSES

Even though the bank has made long strides in providing assistance for the economic development of its ECAFE member countries, yet it is dogged by a number of problems : (1) its financial resources are limited because the regional member countries are mostly poor. Developed member countries which include Japan, Britain, America and others are not prepared to contribute much. (2) There have been negative transfer to the Bank during the last few years from such countries as Fiji, Malaysia and Philippines. (3) No doubt, loan sanctions have increased from the Asian Development Fund, but their disbursements have been less. The Bank should undertake such measures whereby the loan-absorption capacity of the recipients may increase. (4) It provides assistance for mega projects and does not consider cheap community-based alternative projects.

Despite these weaknesses, the ADB's contribution to the economic development of the developing member countries of the region has

been creditable.

EXERCISES

1. Discuss the working and achievements of the Asian Development Bank.
2. Discuss the functions of the Asian Development Bank. What has been its contribution to the regional development of Asia?



SOUTH ASIAN ASSOCIATION FOR REGIONAL COOPERATION (SAARC)

1. INTRODUCTION

The South Asian Association for Regional Cooperation (SAARC) comprises of Bangladesh, Bhutan, India, The Maldives, Nepal, Pakistan and Sri Lanka. The basic aim of the organisation is to accelerate the process of economic and social development in Member States through joint action in the agreed areas of co-operation.

The idea of regional cooperation in South Asia was first mooted in November 1980. After consultations, the Foreign Secretaries of the seven countries met for the first time in Colombo in April 1981. A few months latter, this was followed by another meeting, which identified five broad areas for regional cooperation. The Foreign Ministers, at their first meeting in New Delhi in August 1983, adopted the Declaration on South Asian Regional Cooperation (SAARC) and formally launched its Integrated Programme of Action (IPA).

The Heads of State of these countries at their first historical Summit held in Dhaka on 7th and 8th December, 1985 adopted the Charter formally establishing the South Asian Association for Regional Cooperation (SAARC).

2. OBJECTIVES

The following are the objectives of SAARC:

1. To promote the welfare of the people of South Asia and to improve their quality of life.
2. To accelerate economic growth, social progress and cultural development in the region and to provide all individuals the opportunity to live in dignity and to realise their full potential.
3. To promote and strengthen collective self-reliance among the member countries.
4. To contribute to mutual trust, understanding and appreciation of one another's problems.
5. To promote active collaboration and mutual assistance in the economic, social, cultural, technical and scientific fields.
6. To strengthen cooperation with other developing countries.
7. To strengthen cooperation among themselves in international forums on matters of common interest.
8. To cooperate with international and regional organisations with similar aims and purposes.

3. PRINCIPLES

SAARC is based on the following principles :

1. Cooperation within the framework of Association is based in respect of the principles of sovereign equality, territorial integrity, political independence, non-interference in the internal affairs of other States and mutual benefit.

2. Such cooperation is to complement and not to substitute bilateral or multilateral cooperation.

3. Such cooperation should be consistent with bilateral and multilateral obligations of member states.

4. GENERAL PROVISIONS

The general provisions of SAARC are as follow :

1. Decisions at all levels in SAARC are taken on the basis of unanimity.

2. Bilateral and contentious issues are excuded from the deliberations of the Association.

5. ORGANISATION

The organisation of SAARC consists of the following :

1. SUMMITS

The highest authority of the Association rests with the heads of every member country. This is the highest policy making authority of the Association, called the Council. The Council meets alternatively in the member countries almost every year. During 1985 to 1998, ten meetings of the heads of member countries had been held in Dhaka (1985), Bangalore (1986), Kathmandu (1987), Islamabad (1988), Male (1990), Colombo (1991), Dhaka (1993), New Delhi (1995), Male (1997) and Colombo (1998), respectively.

2. SAARC SECRETARIAT

The SAARC Secretariat was established in Kathmandu (Nepal) on 16th January, 1987. Its role is to coordinate and monitor the implementation of SAARC activities, service the meetings of the

Association and serve as the channel of communication between SAARC and other international organisations.

There is a Secretary-General of the Secretariat. The Secretary-General is appointed by the council of ministers upon nomination by a member State on the principle of rotation in alphabetical order for a period of three years (till 1997 it was for 2 years) which cannot be renewed again.

The Secretariat comprises the Secretary-General, seven Directors one from each State and the General Services Staff. Directors are appointed by the Secretary General upon nomination by member States for a period of three years which in special circumstances, may be extended by the Secretary General for another full term, in consultation with the concerned member States.

The initial cost of establishing the Secretariat was met by Nepal and further expenditures were shared by member States on the basis of an agreed formula. Consequently, India is contributing 32 per cent of the total expenditure, Pakistan 25 per cent and Bangladesh, Nepal and Sri Lanka each 11 per cent and Bhutan and Maldives each 5 per cent.

3. COUNCIL OF MINISTERS

The Council of Ministers comprises all the Foreign Ministers of member States. The council has the following responsibilities :

To formulate policies, reviewing progress, deciding on new areas of cooperation, establishing additional mechanisms as deemed necessary, and deciding on other matters of general interest to the Association. The Council meets twice a year and may also meet in extraordinary session by agreement of member States.

4. STANDING COMMITTEE

The Standing Committee includes the Foreign Secretaries of member States. The Standing Committee has been entrusted with

the following tasks :

Monitoring and co-ordination of programmes, modalities of financing, determining inter-sectoral priorities, mobilising regional and external cooperation. It may meet as often as deemed necessary but in practice normally meets twice a year and submits its report to the Council of Ministers.

The Standing Committee may also set up Action Committees comprising of member States concerned with implementation of projects. It may include more than two member countries. But all member countries may not be included.

5. PROGRAMMING COMMITTEE

The Programming Committee assists the Standing Committee. It includes senior officials. It scrutinises the budget of the Secretariat, finalises the annual schedule of its activities and takes up any other matters assigned by the Standing Committee. It also considers the reports of the Technical Committees and SAARC Regional Centres and submits its comments to the Standing Committee. It meets prior to the Standing Committee sessions. It is an ad hoc body.

6. TECHNICAL COMMITTEES

Technical Committees comprise the representatives of all member States. They formulate programmes and prepare projects in their respective fields. They are responsible for monitoring the implementation of such activities and submit their reports to the Standing Committee through the Programming Committee. The Chairmanship of every Technical Committee rotates among member States in alphabetical order every two years. There are currently 12 Technical Committees such as Agriculture, Communications, Environment, Health and Population Activities, Rural Development, Science and Technology, Tourism, Transport, etc. These committees show the agreed areas of SAARC cooperation and come under SPA which is the main part of SAARC process.

6. CO-OPERATION WITH OTHER ORGANISATIONS

SAARC has established cooperation with international and regional organisations. The arrangement for cooperation takes place by signing agreements with various organisations and MOUs. In February 1993, a Memorandum of Understanding (MOU) on trade analysis and information system was signed between SAARC and UNCTAD. This was the first agreement of cooperation to be signed by SAARC with an international organisation. Similarly, an agreement for cooperation between SAARC and ESCAP (Economic and Social Commission for Asia and the Pacific) was signed in February 1994. The objectives of the agreement were cooperation on development issues through joint studies, workshops and seminars and exchange of information and documentation in poverty alleviation, human resource development, trade promotion, foreign direct investment, environmental protection and prevention of drug trafficking, infrastructure development, etc. Further, it has signed various vital agreements with UNDP in July 1995, with UNDCP in August 1995, with Colombo Plan Bureau in April 1995, with European Community (EC) in July 1996, etc.

7. SAARC FUNDS

The Association has set up two funds to remove financial difficulties.

1. SAARC-Japan Special Fund. The fund established entirely with contribution from the Japanese Government in 1993 provides finance for SAARC related programmes and activities. It has \$ 5 lakh. It consists of two components. According to component I, the allocation is to be used to finance selected programmes and activities identified and managed by the member States. Component II is for the programmes and activities identified and managed by the Government of Japan.

2. South Asian Development Fund (SADF). SAARC Fund for Regional Projects (SFRP) was established with initial capital of \$ 50

lakh. Further, SAARC Regional Fund (SRF) was also set up. The objective of this fund was to provide finance for those programmes and activities which came under IPA and could not be completed due to financial difficulties. The SADF was formally established during the Eight SAARC Summit with the merger of the two earlier funds. SADF has three branches : (1) To identify and develop projects; (2) for institutional and human resources development projects; and (3) for social development infrastructural related development projects.

8. TRADE AND ECONOMIC CO-OPERATION

SAARC has taken various steps to expand trade and economic cooperation among member countries in core areas. Of these, SAARC Preferential Trading Arrangement (SAPTA) is more important.

SAARC PREFERENTIAL TRADING ARRANGEMENT (SAPTA)

The SAPTA Agreement for trade and economic cooperation among member countries came into force on 7 December 1995.

MAIN FEATURES OF SAPTA

The following are the main features of SAPTA:

1. Objectives. SAPTA is a contractual agreement which presents a pattern of rules for gradual liberalisation of intra-regional trade among SAARC member countries. The main objective of SAPTA is to promote and sustain mutual trade and economic co-operation among SAARC States through the exchange of concessions on para-tariff and non-tariff measures.

2. Principles. Article 3 of the agreement explains the following basic principles which administer the agreement.

(a) All member States will receive benefits equitably on the basis of reciprocity and mutuality of advantages. However, their respective

levels of economic and industrial development, the pattern of their external trade, trade and tariff policies and systems will be taken into account.

(b) SAPTA agreement shall be negotiated step by step, improved and extended gradually in successive stages. It will be reviewed periodically.

(c) SAPTA agreement emphasizes on the special needs and preferential treatment for the least developed member countries.

3. Scope. All products, manufactures and raw materials, semi-processed and processed shall be included in the mutual concessions given by member countries. Under this, trade liberalisation shall be done by preferential arrangements relating to tariffs, para-tariff, non-tariff and direct trade measures. It points towards different types of trade negotiations for trade liberalisation or preferential terms on product-by-product basis, across-the-board tariff reductions, sectoral basis and direct trade measures.

4. Special Preferential Treatment for Least Developed States.

Besides other provisions SAPTA provides additional measures for special and more favourable treatment to least developed member countries. They are :

(i) By helping them to expand their export potential through technical assistance, establishment of industrial and agricultural projects linked to cooperative financing and buy-back arrangements;

(ii) By setting up manufacturing and other facilities in least developed member countries to meet their intra-regional demand under cooperative arrangements;

(iii) By formulation of export promotion policies, establishment of training facilities in the field of trade and supporting export marketing of products through such measures as export credit insurance, access to market information, etc.;

(iv) By removing non-tariff and para-tariff barriers and providing duty free access, exclusive tariff preferences or deeper tariff preferences for export products;

(v) By negotiating long-term contracts to achieve reasonable levels of sustainable exports;

(vi) By giving special consideration of exports in the application of safeguard measures from least developed member countries; and

(vii) By adopting greater flexibility in the introduction and continuance of trade restrictions under critical circumstances by the least developed member states.

5. Balance of Payments and Safeguard Measures. Any member State facing serious economic problems including payments difficulties may suspend provisionally the concessions permitted to import merchandise.

There are also some safeguard measures under SAPTA agreement for member countries. *First*, if any product, which is a subject of a concession and is imported into a member State in such a manner or in such quantities as to cause serious injury in the importing member country, this importing member country may suspend that concession provisionally. *Second*, SAPTA Agreement lays down provisions for information, consultation and dispute settlement in order to adopt balance of trade and safeguard measures by any member country.

6. Extension of Negotiated Concessions. The concessions agreed to under SAPTA, except those made exclusively to the LDCs, shall be extended unconditionally to all member States.

7. Committee of Participants. SAPTA has a Committee of Participants consisting of representatives of member States. The Committee meets at least once a year to review the progress made in the implementation of this Agreement. It ensures that benefits of

trade expansion arising from this Agreement accrue to all member States equitably.

8. Non-Application of the Agreement. The provisions of this Agreement shall not apply to member States under the following situations :

If preferences have already been granted or are to be granted by one State to some other member States, and to third countries through bilateral, plurilateral and multilateral trade agreements and similar arrangements.

9. Modification and Withdrawal of Concessions. Any member State which has given concessions may notify the Committee on Economic Co-operation (CEC) of its intention to modify or withdraw the concessions after a period of three years. For this, that country will enter into consultations and negotiations with another concerned country and if necessary, negotiate for appropriate compensation. If an agreement is reached within six months, the CEC may ask the affected member State to withdraw or modify equivalent concessions. But if any country leaves SAPTA, other member States shall be free to withdraw all the concessions given to it.

10. Withdrawal from SAPTA. Any member State may withdraw from SAPTA. For this, it is obligatory for it to give six months' notice to SAARC Secretariat and also to inform CEC.

Conclusion. Thus SAPTA is an organisation for the expansion of intra-regional trade. Its aim is to set up South Asian Free Trade Area (SAFTA) till 2002 by abolishing all trade barriers gradually among member countries, and SAARC Community by 2005.

SAPTA TRADE TALKS AND CONCESSIONS

Negotiations of trade concessions under SAPTA are conducted by an Inter-Governmental Group (IGG). This arrangement operates on the basis of reciprocity and mutuality of benefits. It takes into account the levels of development of member countries, their pattern of

external trade and trade-related policies. Efforts are made to remove tariff and non-tariff barriers that stand in the flow of trade among SAARC countries.

Since the beginning of SAPTA two rounds of negotiations have ended and the third round is in progress. Tariff concessions are negotiated among member countries product-wise and step-by-step. In the first round, member countries exchanged mutual tariff concessions on 226 items. Being the largest member, India gave tariff concessions on 106 commodities to member countries which ranged between 10% and 100%. Pakistan gave tariff concessions on 35 items, Sri Lanka on 31, Maldives on 17, Nepal on 14, Bangladesh on 12 and Bhutan on 11 items to other members. In return, India received tariff concessions on 24 items from Pakistan, 14 from Sri Lanka and 5 from Bangladesh at mostly 10% of the applied tariffs. All the tariff concessions became effective from December 7, 1995. In the Second round, exchange of tariff concessions on 1975 items took place. India offered tariff concessions on 1000 items. These concessions became operational from March 1, 1997.

In the third round of trade negotiations which started in July 1997, the aim was to extend product coverage from 6000 to 7000 items and wider and deeper tariff concessions. At the 10th SAARC Summit held at Colombo in July 1998, India announced to lift import restrictions for member countries on 2000 items. Accordingly, 2000 items were allowed license free entry without tariffs from SAARC countries with effect from August 1, 1998, but subject to the condition that the listed items/goods were new and originated in member countries of SAARC.

9. CRITICISMS OF SAARC

Even though the process of trade liberalisation between SAARC countries has made a good beginning, yet the following are the obstacles in its way:

1. There are many commodities with large intra-trade which have not been included in the list of tariff concessions.
2. Many commodities on which trade concessions have been given are not traded among SAARC countries. This is particularly so in the case of a number of items on which concessions have been given by Pakistan and India.
3. Member countries often bargain for removal of tariffs on the basis of the condition of every commodity.
4. Some member countries get benefits from other regional preferential arrangements which lead to duplication of preferences. For instance, LDC member States like Bhutan and Nepal are already benefiting from much higher tariff concessions on a bilateral basis. Many items on which India, Pakistan, Sri Lanka and Bangladesh are granting tariff concessions under SAPTA to one-another have already been provided under bilateral agreements.
5. Trade concessions being granted under SAPTA on the basis of product-by-product are a big hindrance to trade liberalisation. Unless concessions are given on a wider scale on the basis of sectors, it is not possible to convert SAPTA into SAFTA.
6. India, Pakistan and Sri Lanka, the three big member States of SAPTA, want to grant tariff concessions primarily on the basis of mutuality. The reason for this is lack of faith with each other. For instance, Pakistan is not willing to extend MFN (Most Favoured Nation) status to India which it is obligatory to grant under WTO Agreement. This stands in the way of taking SAPTA to SAFTA.
7. India, Pakistan, Sri Lanka and Bangladesh have quite high tariff rates on many commodities. Pakistan and Bangladesh also impose VAT on all imported goods. Besides, all SAARC countries levy such non-tariff barriers as quantitative restrictions, restrictive licenses, etc. Unless they are totally removed SAPTA cannot be a success.

8. Despite the setting up of Technical Committee on Transport, land and water route transport facilities are not available among SAARC countries. Due to the lack of transport facilities, high transit duty, etc., intra-regional trade has not been increasing, especially among India, Pakistan and Bangladesh.

9. Bank relations are also not developed among SAARC countries. The methods of credit instruments are different in each country from others. Consequently, there are delays and bottlenecks in buying and selling commodities. Neither payments are made in time nor are they cleared. These are the main obstacles in increasing SAARC trade.

10. Another obstacles in the way of SAARC trade is that every member country is afraid of India's superior status because it possesses the largest natural, financial, technical and manpower resources in the region. Naturally, its output of various commodities and export potential are the highest among the SAARC members and its trade balance is also favourable with them.

11. With the removal of trade barriers among SAARC countries, *informal* (illegal) trade in goods has increased. As a result, bilateral trade balances have been adversely affected between the member states. This has led to the demand for tariff barriers which would make SAFTA a remote possibility.

12. The long-drawn hostility between Pakistan and India has overturned the schedule of establishing the SAFIA by 2002 and the SAARC Community by 2005.

10. SUGGESTIONS TO INCREASE ECONOMIC CO-OPERATION AND TRADE IN SAARC

The following suggestions are made to increase trade and economic cooperation among SAARC countries:

1. Tariff and non-tariff barriers should be removed by granting more concessions, especially average import tariffs imposed by India, Pakistan, Bangladesh and Sri Lanka.
2. Trade among SAARC countries can be increased through transport facilities. For this, rail, road and water transport infrastructure should be strengthened. Besides, there is the need to improve the procedures for the grant of visas, transportation of goods and clearance at check-points.
3. Norms regarding the origin of products under SAPTA should be relaxed. At present, if the proportion of the manufactured or produced product or the imported input of a SAARC country exceeds 50%, the product will not be considered to be the produce of that country and it will not get trade concessions. But to increase trade among SAARC countries., it is essential that the ultimate place of manufacture of a product should be the sole criterion for determining the origin of a product.
4. SAARC countries mostly re-export primary products. In the coming years, they should establish manufacturing industries. For this, they should set up special export areas. To attract foreign investments, they should enter into buy-back agreements and also provide fiscal and other facilities to foreign investors.
5. There should be periodic meetings among exporters, importers and private sector representatives of SAARC countries so that informations may be provided for tradeable products and views may be exchanged to remove the trade barriers.
6. The three big and developed SAARC countries (India, Pakistan and Sri Lanka) should give to the four LDCs market access in their territories by granting one-sided concessions on the basis of non-reciprocity principle.
7. Production capacities at the regional level should be enhanced through cooperation among SAARC countries so that intra-regional trade and trade with outside countries increase.

8. For expanding trade relations, it is essential that investments should be made in special regions for the development of infrastructural facilities.

9. In the light of the above, there should be free flow of investments. For this, a SAARC investment region should be established. There will be two advantages from it. *One*, with the flow of investments among SAARC countries small members States will get credit facilities for development. *Two*, this will encourage direct foreign investment into SAARC countries.

10. Big member States of SAARC should help small member countries in developing their power, transport, infrastructure, communication and other resources so that their economic capacities may increase and they may diversify. In this way, all member States will be capable of fully increasing intra-regional trade.

11. SAARC members should set up joint ventures in each other's country, especially in the least developed countries so that their industrial base may develop, their production capacities may increase and intra-regional trade and trade with the rest of the world may expand.

12. For SAARC to march from SAPTA to SAFTA primarily depends upon the relations between India and Pakistan. This is possible on the basis of reciprocal trade concessions, and Pakistan according MFN status to India and giving up hostile attitude towards India.

11. APPRAISAL OF SAARC

SAARC is one of the smallest trade organisations of the world whose primary aim is to accelerate the social and economic development of member States. It is the poorest trade organisation whose four members viz. Bangladesh, Nepal, Bhutan and Maldives come in the category of least developed countries. The total annual trade of SAARC countries in the global trade in 1997 was \$ 109.7

billions. India took the major share in total global trade accounting for 62.1% and the balance of about 38% was shared by the other six member countries—Pakistan (18.4%), Bangladesh (9.4%), Sri Lanka (8.2%), Nepal (1.5%), Maldives (0.25%) and Bhutan (0.15%). The intra-SAARC trade was \$ 3,000 millions which was less than 3% of the region's total global trade. When SAARC becomes a free trade zone by 2005, its share in the global trade is likely to achieve the target of 10%. So far as India is concerned, its cumulative trade with other SAARC member countries was Rs. 7,500 crores in 1999-2000. Of this, exports were at Rs. 6,100 crores and imports at Rs. 1,400 crores.

ACHIEVEMENTS OF SAARC

So far, the achievements of SAARC in boosting trade and regional cooperation are the following :

1. The establishment of SAPTA and reduction in quantitative controls, tariff and non-tariff barriers on imports and grant of concessions under it.
2. The setting up of Technical Committees for economic cooperation among SAARC countries relating to agriculture, communications, education and culture, environment, health and population, rural development, science and technology, tourism, transport, etc.
3. One of the objectives of SAARC is to eradicate poverty among member States by 2002. The agenda on removal of poverty includes strategy of social mobilisation, policy of decentralised agricultural development, small scale labour-intensive industrialisation and human development. It gives priority to the right to work and primary education for every poor person. In its efforts to reduce poverty, SAARC is receiving the cooperation of World Bank, UNDP and ESCAP. SAARC has established a three-tier mechanism for exchanging information on poverty reduction programmes which is passed on to member countries.

4. SAARC has created a reserve of 2,41,580 tonnes of foodgrains for meeting emergencies in member countries. It is managed by the SAARC Food Security Reserve Board which comprises representatives from each member State. It meets once a year and undertakes a periodic review and assessment of the food situation and prospects in the region. The latter include such factors as production, consumption, trade, prices, quality and stocks of foodgrains.

5. SAARC has set up SAARC Chamber of Commerce and Industry (SCCI) since 1992 with its headquarter at Karachi. Its national units are located in seven SAARC countries. It has played a significant role in promoting economic and trade co-operation in the region. It helped in forming SAPTA. Its aim is to promote trade and interaction of chambers of commerce and industry of seven member countries, to organise trade fairs and to confer with other trade organisations for increasing SAARC trade.

6. SAARC established the SAARC Agricultural Information Centre (SAIC) in 1988 which works as a central information institution for agricultural related resources like fisheries, forestry, livestock, potato, rice, etc. It serves as a central information institution for seven national information centres in each member State. It helps in exchanging regionally technical information relating to R & D activities. SAIC also publishes and distributes information among member countries on research and experiments conducted by agricultural institutes relating to agriculture.

7. To develop the SAARC countries socially and economically, SAARC has entered into agreements and signed memorandum of understandings (MOUs) with a number of international and regional organisations like UNCTAD, ESCAP, UNDP, APT (Asia Pacific Telecommunity), UNDCP, EC, ITU (International Telecommunications Unions), CIDA (Canadian International Development Agency), etc.

8. To help member States financially, SAARC has set up two funds :

(1) South Asian Development Fund (SADF) with three windows : window for identification and development projects, window for institutional and human resource development and window for social and infrastructural development projects. (2) SAARC Japan Special Fund.

9. Encouraged by SAARC, the *South Asian Growth Quadrangle* (SAGQ) comprising India, Bhutan, Nepal and Bangladesh has been formed in early 2000. It aims at the economic development of Eastern India, Bangladesh, Nepal and Bhutan and the basin formed by the three major rivers—Ganga, Meghna and Brahmaputra. The area identified for co-operation are multi-nodal transportation and telecommunications, effective use of energy and natural resources, development of tourism, increase in trade and investments and checking environmental hazards.

Conclusion. Since its inception, SAARC has made the above noted achievements within a few years. But to march from SAPTA to SAFTA and to make it a reality, it is essential to have the spirit of mutual faith among the member countries. For this, they will have to improve the political environment and to have greater economic cooperation.

EXERCISES

1. Explain the objectives and organisation of SAARC. What measures have been adopted by SAARC to increase trade and economic cooperation among member countries? Explain them.
2. Explain the main features of SAPTA Agreement. What are the obstacles which hinder its success?
3. Explain the main features of SAPTA? Can SAPTA lead to SAFTA? Give your views.



NEW INTERNATIONAL ECONOMIC ORDER (NIEO)

1. ORIGIN

The demand for a New International Economic Order (NIEO) by developing countries goes back to the first session of the UNCTAD in 1964. The various resolutions adopted in the subsequent sessions of the UNCTAD contain a systematic account of the various elements of an NIEO. At the root of the call for an NIEO lies the dissatisfaction of LDCs with regard to trading, financial, technological and other policies pursued by the developed countries towards the LDCs. The developed countries have oppressed the LDCs, discriminated against them, drained their income and denied them access to advanced technology. Such policies have obstructed their development efforts, perpetuated inequalities in wealth and incomes and increased unemployment and poverty in them. But there were three phenomena that gave an immediate impetus to the demand for an NIEO in the early 1970s. They were : (a) a severe energy crisis; (b) the breakdown of the Bretton Woods System in 1973; (c) the disappointment with development aid which was much below the UN target of 0.7% of GNP of developed countries; (d) the formation of the OPEC (Organisation of Petroleum Exporting Countries) in 1973 and its success in raising oil prices; and (e) the existence of unusual high rates of inflation and unemployment in LDCs.

Specific proposals for an NIEO were put forward at the Summit Conference of Non-Aligned Nations held in Algiers in September 1973. The success of OPEC led the developing countries to call the Sixth Session of the UN General Assembly in April 1974. This session adopted, without a vote, a declaration and a Programme of Action on the Establishment of New International Economic Order “based on equity, sovereign equality, interdependence, common interest and cooperation among all states, irrespective of their economic and social systems which shall correct inequalities and redress existing injustices, make it possible to eliminate the widening gap between the developed and the developing countries and ensure steadily accelerating economic and social development and peace and justice for present and future generations.” In December 1974, the UN General Assembly approved the “Charter of Economic Rights and Duties of States”. All these three Resolutions constitute the documents of NIEO.

2. OBJECTIVES (OR FEATURES) OF NIEO

The following are the most important objectives of an NIEO based on the proposals of the UN Resolutions :

1. International Trade. The NIEO lays emphasis on a greater role of LDCs in international trade by adopting the following measures which aim at improving the terms of trade of LDCs and to remove their chronic trade deficits: (i) establishment of LDC sovereignty over natural and especially mineral resources for export; (ii) promoting the processing of raw materials for exports; (iii) increase in the relative prices of the exports of LDCs through integrated programme for commodities, compensatory financing, establishment of international buffer stocks and creation of a common fund to finance stocks, and formation of producers’ associations; (iv) providing proper framework for stabilising prices of raw materials and primary products so as to stabilise export income earnings; (v) indexation of LDC export prices to rising import prices of manufactured exports of developed countries; (vi) increase in the production of manufactured goods; and

(vii) improved access to markets in developed countries through progressive removal of tariff and non-tariff barriers and restrictive trade practices.

2. Technology Transfer. The NIEO proposals stress the establishment of mechanism for the transfer of technology to LDCs based on the needs and conditions prevalent in them. In this context, particular emphasis is on the : (i) establishment of a legally binding international code regulating technology transfers; (ii) establishment of fair terms and prices for the licensing and sale of technology; (iii) expansion of assistance to LDCs in research and development of technologies and in creation of indigenous technology; and (iv) adoption of commercial practices governing transfer of technology to the requirements of LDCs.

3. Regulation and Control of the Activities of MNCs. The NIEO declaration also emphasises on the formulation, adoption and implementation of an international code of conduct for MNCs (multinational or transnational corporations) based on the following : (i) to regulate their activities in host countries so as to remove restrictive business practices in LDCs; (ii) to bring about assistance, transfer of technology and management skills to LDCs on equitable and favourable terms; (iii) to regulate the repatriation of their profits; (iv) to promote reinvestment of their profits in LDCs.

4. Reforming the International Monetary System and Special Aid Programme. The NIEO declaration proposes to reform the international monetary system on the following lines : (i) elimination of instability in the international monetary system due to uncertainty of the exchange rates; (ii) maintenance of the real value of the currency reserves of LDCs as a result of inflation and exchange rate depreciation; (iii) full and effective participation by LDCs in the decisions of the IMF and the World Bank; (iv) linkage of development aid with the creation of additional SDRs; (v) attainment of the target of 0.7% of GNP of developed countries for development assistance to LDCs; (vi) debt re-negotiation on a case-by-case basis with a view to concluding agreements on debt-cancellation, moratorium or

rescheduling; (vii) deferred payments for all or parts of essential products; (viii) commodity assistance, including food aid, on a grant basis without adversely affecting the exports of LDCs; (ix) long-term suppliers' credit on easy terms; (x) long-term financial assistance on concessionary terms; (xi) provision on more favourable terms of capital goods and technical assistance to accelerate the industrialisation of LDCs; and (xii) investment in industrial and development projects on favourable terms.

5. Interdependence and Cooperation. Above all, the NIEO declaration lays emphasis on more efficient and equitable management of interdependence of the world economy. It brings into sharp focus the realisation that there is close interrelationship and interdependence between the prosperity of developed countries and the growth and development of LDCs. For this, there is need to create an external economic environment conducive to accelerated social and economic development of LDCs. Further, it requires the strengthening of mutual economic, trade, financial and technical cooperation among LDCs, mainly on preferential basis.

3. IMPLEMENTATION OF NIEO PROGRAMME

LDCs have been striving hard to get the NIEO programme implemented at the various international fora in cooperation with the developed countries. But they have been successful in only limited fields.

1. Trade. In the package of proposals to readjust international trade, no worthwhile progress has been made. The implementation of integrated programme for commodities (IPCs) has been extremely slow. The principal element of this programme is the creation of a Common Fund for financing international buffer stocks. After several years of negotiations at the various UNCTAD meetings, a Common Fund for commodities of \$ 4.7 billion has been created with a total pledged capital of 66.9 per cent at the UNCTAD VII in 1987, allowing it to become operational. Whether this Fund will succeed in providing

adequate price support to commodities of LDCs in markets dominated by developed countries is highly uncertain.

As regards international commodity agreements, the NIEO proposals relate to 18 commodities, ten of which were to be initially included in the buffer stock scheme. Of these, five agreements on coffee, cocoa, sugar, tin and rubber were negotiated. But only the agreement on rubber is still in operation.

Little has been done in providing a suitable framework for stabilising prices of raw materials, and processed primary products to stabilise the export earnings of LDCs. Similarly, no steps have been taken up to implement the proposal of indexation of export prices of LDCs to rising import prices of manufactured goods of developed countries.

No doubt, exports of manufactured goods from LDCs have increased rapidly, yet their share in world trade is still very small. The developed countries have agreed to give tariff preferences on the manufactured and semi-manufactured goods of LDCs under GSP (Generalised System of Preferences). GSP schemes are in operation in 29 preference-giving countries including the 15 members of the EC.

So far as tariff cuts on primary and other products from LDCs are concerned, there are apparently no significant barriers to trade after the Uruguay Rounds. Products of LDCs enter the developed countries duty free under MFN (Most Favoured Nation). But in the case of many agricultural products of LDCs which compete with those of developed countries, tariff reductions have been nominal. Developed countries which produce agricultural products have been resorting to subsidisation of their products, while others place restrictions on imports from LDCs. Developed countries have devised new trade restrictions on the products of LDCs such as VER (Voluntary Export Restraint), OMA (Orderly Marketing Agreements), low-cost suppliers, market disruption, etc. Moreover, in the garb of non-technical barriers to trade like environmental, health and sanitary conditions, the developed countries are restricting the exports of LDCs.

As regards non-tariff barriers, agreements have been reached under the GATT Rules for codes on subsidies, countervailing duties, customs valuation, technical barriers to trade, etc. But LDCs are being discriminated under the “escape clauses” and “safeguard rules”.

2. Transfer of Technology. In the area of technology transfer, UNCTAD-IV at Nairobi in 1976 approved a policy paper on the Code of Conduct on Transfer of Technology. The draft code prohibits restricted business practices. There are clauses forbidding LDCs which are the recipients of a particular technology to manufacture export-oriented goods, to introduce on its own changes in that technology, to apply it for purposes other than those specified in the agreement, etc. Such clauses prohibit the use of technologies in their own interests. The policy paper renounces the practice of transferring technology in the form of “single packages” of plants, equipments, materials and managerial services, etc. It also provides criteria for determining “just prices” of technologies.

Subsequent UNCTAD meetings have been simply passing resolutions for the adoption of this policy paper with slight modifications which have been rejected by LDCs. Even the setting up of an ad hoc working group relating to “Investment and Technology Transfer” at UNCTAD-VIII in 1992 has failed to come out with a code of conduct acceptable to LDCs. UNCTAD-IX in 1996 also urged to the developed countries to give LDCs access to high technology crucial to their development. But no progress has been made to evolve a code of conduct for technology transfer by the developed countries. However, an agreement was reached in 1979 for the establishment of a UN Financing System for Science and Technology for Development. To begin with, an Interim Fund had been proposed to supplement the financial resources of LDCs. But nothing has materialised so far.

3. MNCs. The only significant development in the case of MNCs has been the efforts made by the UN Commission on Transnational Corporations in drawing up a code of conduct for the operations of

MNCs. It sets out comprehensive standards of behaviour of these corporations and of their treatment by home and host governments. Besides, negotiations have been going on the code of conduct for technology transfer for establishing a general and universal legal framework for transfer and development of scientific and technological capabilities of LDCs.

4. International Monetary System and Development Aid. After the collapse of the Bretton Woods System, the present international monetary system has not failed to protect the interests of LDCs. The excessive reliance on market forces coupled with excessive exchange rate fluctuations have been responsible for financial crises in some Asian and Latin American developing countries. The IMF has failed to increase the allocation of SDRs with the result that the volume of international liquidity does not meet the requirements of LDCs. The only positive gain has been the 10th and 11th quota reviews enlarging the IMF's quotas to SDR \$ 212 billion. The establishment of *Emergency Structural Adjustment Loans* in early 1999 to help the Asian and Latin American countries inflicted with the financial crisis, and *Contingency Credit Line* in April 1999 to protect other LDCs from the contagion of crisis are welcome measures by the IMF. Despite these, the management of international monetary system by the IMF, World Bank and its affiliates continues to be guided by ad hocism.

Over the years, the various UNCTAD meetings have failed to solve the problems of debt and development aid to LDCs. At best, they have been fora for exchanging ideas and passing resolutions rather than getting issues solved. As regards the flow of official development assistance to LDCs by developed countries, it continues to be nearly half of 0.7% of their GNP target. The IMF and the World Bank have been trying to solve the debt problem of LDCs but with little success because of the paucity of funds with them and strict conditionalities. However, some European banks have been rescheduling debts and a few governments have started debt cancellations. The emphasis continues on tied aid or programme

assistance. Several donor countries continue to use aid increasingly as an instrument of promoting their exports to LDCs.

5. Interdependence and Cooperation. The first step towards economic cooperation among LDCs was taken at the Ministerial meeting of G-77 held at New York in October 1982 when it decided to launch the Global System of Tariff Preferences (GSTP). GSTP is a major initiative undertaken in 1987 by developing countries to expand mutual trade through grant of tariff and non-tariff concessions and other measures. This is being achieved by the ASIAN, SAARC and NAFTA countries.

Besides increasing trade, UNCTAD-VI recommended the initiation or strengthening of a number of cooperative measures in the fields of research and development, design and engineering among LDCs. The possibilities of cooperation for technological transfer among LDCs exist for particularly the following four sectors : capital goods, human skills, energy, and food production and processing. The developing countries are helping the least developed countries in these areas.

It also proposed a simpler payments mechanism under a *common clearing system*. This is another area which provides considerable encouragement to cooperation among LDCs. Further, the developed countries insist that the existing international institutions like the IMF and World Bank should be strengthened financially so that they may provide larger aid to LDCs to tide over their balance of payments and debt problems. But the LDCs call for the setting up of a new financial institution which should exclusively cater to their special financial requirements in fields such as joint ventures, development projects, export credit, commodity price stabilisation, and regional payments support, and long-term investment to expand trade in food and primary products, and for storage, processing and transport. So far no progress has been made in this direction.

UNCTAD-VIII set up a new Standing Committee on Economic Cooperation among developing countries to study report on all facets of co-operation. But nothing has come out of it.

There are many factors which stand in the way of economic cooperation among the LDCs. The economies of LDCs are highly competitive in nature. They have limited import capacity, inadequate credit facilities, chronic foreign exchange shortage, and prejudice against the goods traded among themselves. Consequently, they prefer to trade with developed countries even though goods manufactured by LDCs are cheaper and of high quality. However, some LDCs suffer from other limitations which prevent them from entering into trade with other LDCs. These are technological backwardness, shortage of key inputs, high cost of production, lack of competitive strength, and weak marketing structure. The various problems listed above can be overcome by mutual help and trust among LDCs of a region and working in close cooperation among themselves.

CONCLUSION

Besides the lack of economic cooperation among the LDCs, the developed countries have explicitly and implicitly tried to oppose NIEO programmes. This is apparent from the “trade” and “escape” clauses, phasing out of concessions to LDCs and other agreements forced upon LDCs under the GATT Rules and WTO Agreement at the Uruguay Round. To overcome the opposition of developed countries, LDCs require greater unity and solidarity and broader use of all types of cooperation in their struggle for NIEO at all international fora.

EXERCISES

1. What do you mean by New International Economic Order? Explain its objectives and to what extent they have been achieved?
2. What is the need for New International Economic Order? What objectives should be fulfilled to achieve it? Explain them.

3. Explain the origin and objectives of New International Economic Order.



FOREIGN TRADE AND BALANCE OF PAYMENTS IN INDIA

1. INTRODUCTION

The present chapter examines the role of foreign trade in India's economic development since the beginning of the planning era. More than four decades have passed since India started on the path of planned economic development in 1950-51. During this period, important changes have taken place in the volume, composition, and direction of its foreign trade. These features of India's foreign trade are discussed below.

2. VOLUME OF TRADE

The size or volume of India's foreign trade in terms of the total value of imports and exports has been rising considerably since 1950-51, as shown in Table 1. The total value of foreign trade rose from Rs. 1,214 crores in 1950-51 to Rs. 3,169 crores in 1970-71 to Rs. 75,751 crores in 1990-91 and further to Rs. 14,12,285 crores in 2006-07.

Imports. During 1950s the increase in the value of trade was slow. Exports were almost stationary and were confined to traditional items of primary goods. But imports increased by 84.5 per cent over the period 1950-51 to 1960-61, because of increasing imports of

foodgrains, raw materials and capital equipment and machinery. The emphasis on heavy industries during the Second Plan necessitated the imports of machinery and capital equipment which increased the total value of imports. The emphasis on heavy industries was continued during the Third Plan and the Three Annual Plans which led to increase in imports of machinery and equipment. Bad weather conditions also led to larger imports of agricultural raw material and foodgrains. Coupled with these factors, the devaluation of the Indian Rupee in June 1966 further raised the value of imports. Consequently, the value of imports rose by 41.0 per cent over the period 1960-61 to 1969-70.

During 1970s, imports rose at a faster rate than exports. Imports increased by 668.0 per cent in 1980-81 over 1970-71 while exports increased by 337.2 per cent in value terms. The large increase in the value of imports occurred in the case of petroleum. oil and lubricants (POL) due to increase in their prices by OPEC countries, first in 1973-74 and then again in 1979 and 1980. Besides, the inflationary trends in the world also helped in increasing the prices of other imports. In 1980-81 the value of imports rose by 37 per cent. One of the principal items which led to such a high increase was import of POL, whose value rose by 58 per cent in 1980-81 over the previous year. With the increase in the domestic production of crude oil, India's share of POL in overall imports fell to 42 per cent in 1980-81 to 63.8 per cent in 1999-2000. Imports grew at an average annual rate of 13.4 per cent in the Sixth Plan, 16.0 per cent in the Seventh Plan, 18 per cent in the Eighth Plan and fell to 9.8 per cent in the Ninth Plan. But rose to 28.2 per cent in the Tenth Plan.

TABLE 1. INDIA'S FOREIGN TRADE

(Rs. Crores)				
<i>Year</i>	<i>Imports</i>	<i>Exports</i>	<i>Total</i>	<i>Balance of trade</i>
(1)	(2)	(3)	(2)+(3)=(4)	(5) = (2) – (3)
1950-51	608	606	1214	– 2
1955-56	774	609	1383	– 165
1960-61	1122	642	1764	– 480

1965-66	1409	810	2219	– 599
1969-70	1582	1413	2995	– 169
1970-71	1634	1535	3169	– 99
1974-75	4519	3329	7848	– 1190
1978-79	6811	5726	12537	– 1085
1979-80	9143	6418	15561	– 2725
1980-81	12549	6711	19260	– 5838
1990-91	43198	32553	75751	– 10645
2006-07	840506	571779	1412285	– 268727

Source : D.G.C.I. & S., Monthly statistics of Foreign Trade.

Note : 1950-51 to 1965-66 Pre-devaluation rates and thereafter Post-devaluation rates.

The high growth in imports in the post-liberalisation era has been partly the result of increasing import intensity of capital goods. The Indian industry has been technologically upgrading itself to compete globally. The other factors have been the removal of trade restrictions, increase in import of raw materials, POL, fertilisers, edible oils and non-oil imports and rise in POL prices. The growth in imports is also reflected in the import/GDP ratio which increased from 8.8 per cent in 1990-91 to 20.9 per cent in 2006-07.

Exports. Over a period of thirty years (1950-51 to 1980-81), India's exports increased by more than 11 times. During the First and Second Plans exports remained almost stagnant around Rs. 600 crores on the average. The adoption of various export promotion measures during the Third Plan broke the stagnation spell and exports showed an upward trend, rising to Rs. 810 crores in 1965-66 at post-devaluation rates. After the devaluation of June 1966, exports of iron ore, leather and leather manufactures, cashew kernels, engineering goods, iron and steel, chemicals and allied products, etc. received a further boost. In 1969-70 exports had risen by 96 per cent over the 1960s at post-devaluation rates. The annual

average growth rates of exports for the period 1960-70 was 3.6 per cent which cannot be termed as satisfactory.

It was, however, in the 1970s that the rate of growth of exports increased considerably. During 1970-71 and 1971-72, exports increased by 8.6 per cent and 4.8 per cent respectively. Then for the next five years from 1972-73 to 1976-77, exports recorded an average growth rate of 26.4 per cent. Thereafter, the growth rate slumped to 6.9 per cent between 1977-78 to 1980-81. The Sixth Plan achieved an average annual growth rate in exports of 13.0 per cent, and the Seventh Plan 19.8 per cent. But during the Eighth Plan, exports grew by 13.7 per cent, fell to 7 percent in the Ninth Plan and rose to 23.5 percent in Tenth Plan.

The principal reasons for the sluggishness of exports during 1980s had been domestic supply constraints; Government's policy of restricting exports of consumer goods; fall in the value of dollar which reduced the value of Indian exports; and increase in protective measures by developed countries.

Since the beginning of the liberalisation era, the growth rate of exports has not been satisfactory except from 1993-94 to 1995-96. This has been due to a host of developments including a sharp fall in international prices of manufactured products and the emergence of economic crises in certain parts of the world. In addition, protectionist policies and practices adopted by various industrialised countries in the form of sanitary and phytosanitary measures, technical standard requirements and perhaps most importantly anti-dumping and countervailing measures seriously affected the export measures.”¹ There are also domestic factors that continue to hamper our export growth. They are “infrastructure constraints, high transaction costs, SSI reservations, inflexibility in labour laws, quality problems, quantitative ceilings on agricultural exports and constraints in attracting FDI in the export sector.”²

In order to determine the contribution of India's exports to the development of the economy, a number of indicators are taken into account. The first is India's share in world exports. The country's

share declined from 2.0 per cent in 1950 to 1.4 per cent in 1960 to 0.6 per cent in 1970 to 0.4 per cent in 1980. Thereafter, it has been on the increase and was 1.1 per cent in 2005.

Another indicator is the share of exports as a percentage of GDP which fell from 6.3 per cent in 1950 to 4.2 per cent in 1970. But it started looking up and was 5 per cent during the Seventh Plan, and increased from 5.8 per cent in 1990-91 to 14.0 per cent in 2006-07.

The percentage of imports financed by exports also determines a country's export position. In India, it was 90 per cent in 1950-51 which went down to 61 per cent in the Third Plan, rose to 94 per cent in 1970-71, fell to 53.5 per cent in 1980-81, rose to 66.2 per cent in 1990-91 and to 67.0 per cent in 2006-07.

3. STRUCTURAL CHANGES IN INDIA'S FOREIGN TRADE

Structural changes in India's foreign trade refer to the changes which have occurred over the years in the composition of India's imports and exports, the direction of India's imports and exports and the share of India's aggregate trade in world trade. We discuss below the *composition and direction of India's foreign trade*.

COMPOSITION OF TRADE

Mere increase in the value of imports and exports is not an indicator of the level of economic development of a country. It is the composition of trade that is more important. The types of goods imported and exported by a country reveal whether a country is industrialised or backward. The changes occurring in the composition of trade over the years also show the economic transformation of a country.

Imports. During the period of the First Five-Year Plan, India's imports consisted mainly of foodgrains, raw jute and cotton, machinery, transport equipment, iron and steel, petroleum and

petroleum products, etc. in small quantities having total value of imports worth Rs. 650 crores.

[1.](#) RBI, *Report on Currency and Finance*, 1998-99.

[2.](#) G.O.I., *Economic Survey*, 2000-2001.

It was the adoption of the objectives of rapid industrialisation and particular emphasis on the development of heavy and basic industries in the Second Plan that the composition of imports started changing. Along with this, the policy of establishing import-substitution industries also changed the nature of imports. There are about 300 import commodities which have been completely substituted by domestic production. Some of them are machine tools, sugar mill machinery, cement machinery, railway wagons, commercial vehicles, cars, jeeps, land rovers, motor cycles and scooters, bicycles, sewing machines, electric fans, electric lamps, refrigerators, automobile tyres and tubes, aluminium, soda ash, caustic soda, ammonium sulphate, etc.

In the field of *consumer goods*, India primarily imports cereals and cereal preparations, edible oils, pulses and sugar. They have shown wide fluctuations due to movements in international prices from 1950s to 1970s, their imports averaged 8 per cent per annum. Right from 1950s to 1970s, India's imports of these commodities ranged between 15 to 17 per cent of total imports in normal times. But in periods of bad harvests, they averaged to more than 20 per cent. However, with the creation of buffer stocks, their imports have declined substantially. For instance, their average share in total imports was 4.3 per cent between 1987-88 to 1990-91, 3.6 per cent between 1992-93 to 1998-99 and 2.9 per cent in 2006-07.

The imports of *raw materials and intermediate goods* have been on the increase with development. This shows that the country is diversifying in the industrial sphere thereby, necessitating increasing imports of such commodities as POL, fertilizers and chemicals, iron and steel, non-ferrous metals, etc.

The largest increase in the value of imports has occurred in *POL*. The increase in the prices of POL in 1973-74, 1980-81, 1990-1991, 1999-2000 and in subsequent years considerably raised the value of their imports so that they formed 26 per cent of the total import bill in 1974-75, 42 per cent in 1980-81, 60 per cent in 1990-91 and 63.8 per cent in 1999-2000. It started declining with the increase in domestic production of POL and was 30.8 per cent in 2006-07. This reflects growth in demand despite rise in domestic production of POL.

The next important category of imports is *capital goods*. The imports of capital goods in value terms rose by 125.8 per cent during the Second Plan. This was due to the policy of establishing capital-intensive industries. But in 1969-70 and 1970-71, their imports were about one-half of what they were in 1965-66. This was the result of the slowing down of the tempo of domestic industrial production and restrictions of the import policy. Since 1980s, imports in value terms started rising. The trend was the combination of a number of factors. *First*, sharp increases in the prices of capital goods by exporting countries. Second, progressive liberalisation of imports of machinery items. Consequently, imports of capital goods to total imports rose from 15.2 per cent in 1980-81 to 24.2 per cent in 1990-91 and to 26.0 per cent during 1992-99. But fell to 15.4 per cent in 2006-07.

Among *new commodities*, there has been an increase in the imports of gold and silver following the repeal of the Gold Control Order in 1991 and the subsequent liberalisation of gold import. The imports of gold grew by 616 per cent during 1992-93 to 1998-99. But declined to 13.2 per cent in 1999-2000 and further to 7.9 per cent in 2006-07. This decline was due to the liberalisation of bullion trade, the hike in gold import duty, introduction of the gold deposit scheme to reduce dependence on imports and high price of gold and silver in the world market.

India also imports *commercial services* like travel, transport, business, financial services, etc. Travel and transport services accounted for 17.8 per cent and 21.5 per cent in 2006-07

respectively. But business and financial services are the most important that grew at 120.6 per cent and 116.3 per cent in 2007-08 respectively, while communication services registered the highest growth rate of 128 per cent.

It can be concluded that the overall trend of imports reflects that India has been becoming an industrialised country where its dependence on consumer goods, except cereals and cereal preparations, has been eliminated and its requirements of imports are confined mostly to raw materials, intermediate manufactures and machinery, and POL and non-POL imports.

Exports. Another noteworthy feature of India's foreign trade has been the composition of its exports. In 1950-51, *traditional exports* like tea, jute and cotton textiles formed 55 per cent of its total export trade. Till the nineties, the policy of industrialisation by import substitution alongwith the objective of a self-reliant economy dispensed with India's dependence on traditional exports. From the early 1990s, there was a shift in the policy from import substitution to export promotion. With greater export incentives the commodity-mix of India's exports has widened. Now exports include, besides traditional items, innumerable non-traditional and non-manufactured items.

Among the major *non-traditional items* are oil cakes, leather and leather manufactures including footwear, cashew kernels, engineering goods, iron and steel, chemicals and allied products, fish and fish preparations, readymade garments, spices, handicrafts, gems and jewellery, etc. There are also many household consumer goods, bicycles, sewing machines, fans, air conditioners, refrigerators, scooters, cars and varied electrical appliances, etc. which are exported. Consequently, there has been strong growth in merchandise exports which increased from 5.8 per cent of GDP in 1990-91 to 14.0 per cent in 2006-07.

A recent feature of India's exports has been *trade in services* which includes transport, travel, insurance, business, financial communication and software services. Of these, miscellaneous

service exports consisting of software, business, financial and communication services constituted 75.6 per cent India's export of services in 2006-07. Of these, financial services grew at 140.9 per cent followed by business services with a growth rate of 107 per cent in 2006-07. In 2006-07, India's services exports were about 60 per cent of merchandise exports. With the continued growth in India's export of services, their share in world trade in services increased from 0.6 per cent in 1995 to 2.7 per cent in 2006-07 and India became the 10th largest exporter of services in the world.

DIRECTION OF TRADE

The direction of India's foreign trade has undergone important changes since 1950-51. In 1950-51, the share of the UK in India's export trade was 21 per cent, of the USA 10 per cent, of Japan 1.5 per cent, of the USSR 2 per cent, and of oil exporting developing countries 4 per cent. So far as the share of these countries in India's imports was concerned, the UK's share was 26 per cent, the USA's 20.3 per cent, Japan's 1.8 per cent, oil exporting developing countries' 4 per cent, and Russia's share was nil.

Now India's trade relations are not confined to only a few countries, but they have considerably diversified to the EU countries, ASEAN, OPEC, and North-East Asian Countries.

Exports. The market-wise distribution of India's exports for the periods 1960-61 and 2006-07 shows that the share of the USA in India's total exports increased from 13.5 per cent in 1960-61 to 14.9 per cent in 2006-07. The share of EU countries in India's total exports increased from 7 per cent to 21.3 per cent over the period, and of the UK fell from 27 per cent to 4.4 per cent. The share of Japan fell from 5.5 per cent to 2.2 per cent over the period. In the case of OPEC countries, exports rose from 4.1 per cent in 1960-61 to 18.2 per cent in 2006-07. In recent years India's trade with China has been on the increase. China's share in India's total trade increased from 3.1 per cent in 2001-02 to 8.3 per cent in 2006-07 and the share of India's exports to China was 6.6 per cent in 2006-07. Region-wise, Asia and ASEAN countries have emerged as major

export destinations. From a level of around 40 per cent in 2001-02, their share increased to 49.8 per cent in 2006-07.

Imports. There have also been significant changes in the direction of India's imports. The share of USA in India's total imports declined steeply from 29.2 per cent in 1960-61 to 7.4 per cent in 2006-07; the share of EU countries declined from 37.1 per cent to 21.8 per cent and that of the UK from 19.4 per cent to 2.8 per cent over the period. Imports from Japan fell from 5.4 per cent to 2.4 per cent over the period. In the case of the OPEC countries, their share in India's imports rose from 4.6 per cent in 1960-61 to 26.9 per cent in 2006-07. This was due to the increase in the price and quantities of petroleum, oil and lubricants. Imports to ASEAN countries increased from 5.7 per cent in 1960-61 to 9.5 per cent in 2006-07. Imports from China in 2006-07 were 9.2 per cent of India's total imports.

Conclusion. The direction of India's foreign trade, as analysed above, reveals that the country has geographically diversified its trade relations. It has larger outlets for its exports and varied sources of imports. Thus it has shed its dependence for exports and imports on a few countries and has really entered into multilateral trade.

4. BALANCE OF TRADE

India's trade balance has continuously remained in deficit except in 1972-73 and 1976-77. Trade deficits are a concomitant result of economic development. For development, the country has been importing capital goods, raw materials, intermediate products, and even foodstuffs.

In 1950-51, India's trade deficit was Rs. 2 crores which continued to increase with every five-year plan till it reached Rs. 599 crores in 1965-66, as shown in column (5) Table 1. This was due to larger imports of capital goods, raw materials and intermediate products for setting up heavy and import-substitution industries. After the devaluation of June 1966, exports started looking up and there was

also a decline in the import of foodstuffs. Consequently, the trade deficit declined to Rs. 99 crores in 1970-71 and there was a surplus of Rs. 104 crores in 1972-73.

The sharp increase of 58 per cent in the import bill in 1973-74 over the previous year while exports did not show much increase, led to a trade deficit of Rs. 432 crores. The increase in the value of imports was largely due to the increase in the prices of petroleum, oil and lubricants and also in the prices of fertilizers, non-ferrous metals, and iron and steel. Besides, there was an increase in the prices and imports of foodgrains and vegetable oils. Thereafter, the trade deficit increased to Rs. 1,190 crores in 1974-75 and to Rs. 1,229 crores in 1975-76.

The year 1976-77 was a turning point in India's trade balance because during this year there was a small surplus of Rs. 68 crores after a record deficit in the previous year. This was on account of 27 per cent increase in the value of exports, and a decline in imports by 3.6 per cent over the previous year.

Balance of Trade during 1980s. From this year onwards, there had been huge increase in trade deficits due to slow growth of exports and fast rise in imports. The second oil shock in 1979-80, increased the import bill to 37 per cent in 1980-81. On the other hand, the export bill increased by only 4.6 per cent in 1980-81. Consequently, the trade deficit mounted to Rs. 5,838 crores in 1980-81. Throughout the eighties, the trade deficit hovered between Rs. 7 to 8 thousand crores. The main reasons for the increase in imports had been the increase in the quantum as well as the unit value of imports due to a liberal import policy alongwith industrial liberalisation. The increase in oil imports accounted for more than half the increase in total imports. This was followed by the second round effects on non-oil imports. For instance, annual average growth rate of net oil imports was 25.9 per cent of non-oil imports, 18.8 per cent between 1985-86 to 1990-91. On the other hand, exports could not increase due to depressed international demand following severe global recession,

the policy of protection followed by the developed countries, and the supply constraints in domestic production.

Balance of Trade during 1990s. In 1990-91, the trade deficit was Rs. 10,645 crores, the highest so far. This was due to a high growth rate of 22 per cent in imports. This was mainly the result of higher imports of POL which increased by 60 per cent in dollar terms due to both a hike in world oil prices following the Gulf crisis as well as increased volume of oil imports as domestic production was obstructed by supply difficulties. On the other hand, exports grew by 17.7 per cent in 1990-91. This deceleration in exports was caused by : (a) a slowdown in the expansion of world trade which increased by only 0.9 per cent in 1991; (b) recessionary conditions in some major industrial economies; (c) loss of export market in the Middle East due to the Gulf crisis; (d) political and economic upheavals in Eastern Europe; (e) import curbs introduced during 1990-91 in response to foreign exchange shortages; and (f) internal law and order problems in some States.

During 1991-92, the trade deficit was reduced to Rs. 3,809 crores. This was due to growth in exports by 35 per cent over the previous year, while imports grew by 10.8 per cent. This reduction in trade deficit was the result of new initiatives taken in trade policy during 1991-92. These policy changes aimed at strengthening export incentives, while at the same time reducing a substantial volume of import licensing and regulation on foreign trade. It introduced a self-balancing mechanism whereby imports were automatically regulated by the availability of Exim scrips through export earnings.

Thereafter, except for 1993-94 when the trade deficit was Rs. 3,350 crores, it had been rising and touched the peak of Rs. 41,658 crores in 1999-2000. The widening of the trade deficit was the outcome of sluggish export growth rates from 1996-97 to 1998-99. Export on BOP basis grew at the rate of 5.6 per cent in 1996-97, and 5.4 per cent in 1997-98. In 1998-99, there was a negative growth rate of 3.9 per cent. During 1999-2000, exports recovered with the growth rate of 11.6 per cent. On the other hand, imports on BOP basis grew at

much higher rates during these years. They grew at the rate of 12.1 per cent in 1996-97, 4.6 per cent in 1997-98, and declined by 7.1 per cent in 1998-99. In 1999-2000, they increased sharply by 16.5 per cent mainly because of 63.8 per cent increase in the oil import bill. The high import growth rate during 1990s was also due to the gradual removal of QRs (quantitative restrictions) on imports, buoyancy in industrial sector, particularly of capital goods and inputs following the liberalisation of the Indian economy. So far as exports are concerned, it seems that the initial effects of trade liberalisation have been absorbed. Moreover, there has not been any perceptible change in the composition of Indian exports since the reforms started.

Balance of Trade Since 2000-01. Trade deficit increased to Rs. 56,737 crores in 2000-01 and further to a peak of Rs. 2,68,737 crores in 2006-07. As a proportion of GDP, it was 2.7 per cent in 2000-01, declined to 2.1 per cent in 2002-03, widened to 4.8 per cent in 2004-05 and further to 6.9 per cent in 2006-07. This was due to the rapid growth of imports of petroleum, oil and lubricants (POL), non-POL imports and gold and silver imports, as also their prices in world markets. During 2004-05 and 2006-07, imports as a proportion of GDP grew faster than exports. The average annual growth rate of imports during these three years was 19.1 per cent of GDP, while that of exports was 13.1 per cent of GDP. The slow growth in exports was the result of the appreciation of the rupee against the dollar.

5. TERMS OF TRADE

The terms of trade (TOT) measure the terms of exchange between a unit of import and a unit of export. There are two common ways of measuring the TOT. They are the net terms of trade (NTT) and the income terms of trade (ITT). The NTT is the ratio of unit value index of imports to unit value index of exports. In the 1950s, 1960s and early 1970, the NTT was on the whole satisfactory. For instance, in 1954-55, it was 110 (1951-53 = 1000); in 1960-61, it was 115 (1958-100) and in 1970-71, it was 127 (1978-79 = 100).

It declined to 92 in 1974-75, to 85 in 1975-76 and to all time low of 81 in 1980-81. The reason for such low levels of NTT had been a large rise in the unit value index of imports as compared to the unit value index of exports. The export unit value index increased by 3 per cent in 1980-81 over 1979-80 as compared with the import unit value index which increased by 18 per cent. It shows that during the 1970s prices of Indian exports had been rising slowly as compared with the large rise in prices of imports. There was marginal improvement in the NTT in 1981-82 and 1982-83. But in 1983-84, the NTT reached a high of 120. This was due to the rise in the unit value index of exports by 14 per cent and decline in the unit value index of imports by 8 per cent over the previous year. From 1986-87 to 1989-90, the NTT continued to be above 120. In 1990-91, it fell to 109 and then improved continuously to 152 in 1994-95. However, it declined to 126 in 1996-97, but rose to 146 and 150 in 1997-98 and 1998-99 respectively due to the increase in both the unit value of exports and imports during these years. In subsequent years, it had been on the decline and was 142 in 2006-07 due to the rise in the unit value index of exports by 8 per cent and of the unit value index of imports by 2.7 per cent over the previous years.

So far as India's income terms of trade (ITT) is concerned, it has been improving continuously since 1986-87. The ITT is the capacity to import of a country in exchange for its exports. An improvement in the ITT index means that India's capacity to import has increased. It increased from 156 in 1986-87 to 1653 in 2006-07.

In terms of volume, India's indexes of exports and imports have also been increasing continuously since 1986-87. The volume index of exports increased from 121 in 1986-87 to 1164 in 2006-07 and that of imports from 212 to 2047 over the period. But the index of exports had been much less than that of imports. This means that the volume of imports had been increasing faster than that of exports, though India had been getting a better price for her exports, as revealed by the ITT.

To conclude with V.R. Panchmukhi, “India’s terms of trade show a pathetic performance of either wild fluctuations or significant deterioration... This behaviour of terms of trade is a reflection of the inequitous distribution of the benefits from trade due to the differences between the movements of the export and import prices”.³

6. INDIA’S BALANCE OF PAYMENTS POSITION, 1951-90

Since the beginning of the First Plan in 1951, the Indian economy has, by and large, been facing deficits in its balance of payments. Table 2 gives a plan-wise summary of the country’s balance of trade and balance of payments on current account.

TABLE 2. INDIA’S BALANCE OF PAYMENTS

		(Rs. Crores)
<i>Plan Period</i>	<i>Balance of Trade</i>	<i>Balance of Payments</i>
First Plan (1951-52 to 1955-56)	– 541.9	– 42.3
Second Plan (1956-57 to 1960-61)	– 2339.0	– 1712.6
Third Plan (1961-62 to 1965-66)	– 2400.0	– 1972.5
Annual Plan (1966-67 to 1968-69)	– 1967.6	– 1982.4
Fourth Plan (1969-70 to 1973-74)	– 1563.9	– 2221.0
Fifth Plan (1974-75 to 1978-79)	– 4043.0	+ 1404.3
Sixth Plan (1980-81 to 1984-85)	– 30137	– 11886
Seventh Plan (1985-86 to 1989-90)	– 54205	– 39848

Source : RBI Bulletins.

3. P.R. Brahmanand and V.R. Panchmukhi, (ed.), *The Development Process of the Indian Economy*, 1987.

The balance of payments position was more satisfactory than anticipated during the First Plan. The Plan had estimated an average annual deficit of Rs. 180 to 220 crores. But the actual deficit for the entire Plan period amounted to Rs. 42.3 crores. The reason was that this was a modest plan which did not introduce fresh schemes. Good monsoons did not necessitate imports of agricultural and industrial production.

The Second Plan was an ambitious and bold plan which aimed at the development of industries and transport. This necessitated the imports of heavy machinery, equipment, and essential raw materials. Uncertain monsoons led to large imports of foodgrains and agricultural raw materials. Consequently, acute foreign exchange crisis developed due to a large trade deficit of Rs. 2,339 crores and balance of payments deficit of Rs. 1,712.6 crores.

The balance of payments position remained tight during the Third Plan. The balance of payments deficit was very high, being Rs. 2,400 crores. The main reasons were rise in imports of industrial raw materials, machinery and maintenance imports and defence equipment due to Chinese aggression of 1962 and the Indo-Pak War of 1965 and fall in the exports of traditional items like cotton textiles and jute goods. Besides, there was also a large increase in the debt-service burden.

Heavy trade deficits and debt obligations during the Third Plan led to the devaluation of the rupee in June 1966. Despite devaluation, and the adoption of liberal import policy and encouragement of exports following it, the balance of payments position continued to be serious. The failure of monsoons necessitated large imports of foodgrains for the first two Annual Plans, 1966-67 and 1967-68. The usual imports of machinery, plants and raw materials continued. In the Third Annual Plan of 1968-69, exports increased by 13.5 per cent and imports declined marginally but the overall balance of payments position did not improve as the value of imports rose and

that of exports declined due to the devaluation. Consequently, the balance of payments deficit during 1966-67 to 1968-69 was Rs. 1,982.4 crores.

During the Fourth Plan, the average annual growth rate of exports was quite high, being 12.8 per cent. Despite this, the balance of payments deficit for the Plan period was Rs. 2,221 crores. A severe and widespread drought in 1972-73 forced the country to import large quantities of foodgrains at unprecedented high prices. Further, the world prices of several major items of imports like POL, steel, non-ferrous metals, newsprint, etc. rose sharply. To those were added heavy debt service payments amounting to Rs. 2,443 crores during the Plan Period.

During the Fifth Plan, the overall balance of payments position was very satisfactory. For the first time, the balance of payments on current account for the entire Plan period was plus Rs. 1404.3 crores. This was due to marked improvement of India's external payments position during 1976-77 and 1977-78, as a result of the continued rise in merchandise exports. At the same time, imports did not register a rise due to sharp reduction of food and fertilizer imports. In 1976-77, imports declined by 3.6 per cent and exports increased by 27 per cent over the previous year. Coupled with improvement in balance of trade, there was a large increase in net invisibles of the current account. There was also a phenomenal increase in foreign exchange reserves during the Plan when they increased from Rs. 1,022 crores in 1974-75 to Rs. 5,821 crores in 1978-79. But in the last year of the Plan 1978-79, imports increased substantially, particularly on account of import liberalisation policy. On the other side, exports slackened due to recessionary situation in the world market and protectionist tendencies in the major industrialised countries.

The Sixth Plan (1980-85) estimated the balance of payments deficit at Rs. 9,100 crores and the balance of trade deficit at Rs. 17,773 crores. But the balance of payments performance during the Sixth Plan had been far from satisfactory than initially anticipated. The

balance of payments deficit was Rs. 11,836 crores as against the estimated amount of Rs. 9,100 crores. The principal reason for this large deficit during the Sixth Plan was a huge trade deficit amounting to Rs. 30,137 crores on account of increased imports of POL, fertilizers and chemicals, raw materials and intermediate products, and capital goods. At the same time, exports grew slowly due to domestic supply constraints, unfavourable world environment and increase in protectionism by the developed countries. There was also a declining trend in net invisibles mainly because gross invisible payments increased at a compound rate of 15.2 per cent, while invisible payments increased at a higher rate of 25.5 per cent. Among the non-factor services, there was a fall in foreign travel receipts and investment income receipts. Moreover, foreign exchange reserves including gold and SDRs, increased by only Rs. 1,699 crores. Thus the balance of payments was under heavy strain over the Sixth Plan.

During the Seventh Plan (1985-90), the balance of payments position continued to remain difficult with the current account deficit averaging over 2.3 per cent of GDP against the projection of 1.6 per cent. In absolute terms, the current account deficit averaged around Rs. 7,790 crores per annum during the Plan period. The trade deficit was the highest recorded so far, being Rs. 54,205 crores and the overall deficit in the balance of payments was Rs. 39,848 crores. Over the Plan period, the average cost of multilateral assistance had been rising as IDA assistance declined and recourse to the IBRD rose. Net availability of assistance from bilateral concessional sources also declined. Consequently, the current account deficit in the balance of payments had to be financed by substantial inflows of capital in the form of loans from multilateral and bilateral sources (28%), commercial borrowings (25%), inflow of funds from non-resident Indians under NRERA and FCNRA (23%), other capital transactions (13%), and the use of reserves (11%). It may be noted that foreign exchange reserves actually declined from Rs. 7,820 crores in 1985-86 to Rs. 6,251 crores in 1989-90.

7. BALANCE OF PAYMENTS DEVELOPMENTS SINCE 1990

The economic crisis at the end of 1980s led to severe balance of payments crisis. It was brought about by the rise in oil prices following the Iraqi invasion of Kuwait in August 1990. This led to an extra burden of \$2.9 billion on BOP in the form of additional POL import bill on account of the rise in POL prices, loss in exports to West Asia, loss in remittances from Iraq and Kuwait, etc. The Gulf crisis also made external borrowings difficult. As a result, current account deficit rose to 3.1 per cent of GDP, as shown in Table 3.

TABLE 3. BALANCE OF PAYMENTS SINCE 1990-91

Years	Trade Balance	Net Invisibles	Current A/c Balance (CAB)	CAB as % GDP	(in US\$ million)
					Exports/ Imports (%)
1990-91	(-)9438	(-)242	(-)9680	(-)3.1	66.2
2000-01	- 12460	9794	- 2666	- 0.6	78.5
2001-02	- 11574	14974	3400	0.7	79.4
2002-03	- 10690	17035	6345	1.3	83.4
2003-04	- 13718	27801	14083	2.3	82.9
2004-05	- 33702	31232	- 2470	- 0.4	71.7
2005-06	- 51904	42002	- 9902	- 1.2	67.0
2006-07	- 63177	53405	- 9766	- 1.1	67.0

Source : G.O.I., *Economic Surveys and R.B.I. Bulletins*.

With the beginning of liberalisation since 1991-92, there had been a marked improvement in BOP. As a percentage of GDP, India's current account deficit fell from the high of 3.1 per cent in 1990-91 to 1.1 per cent in 2006-07. On an average, it remained well below 2.0 per cent of GDP in all these years after the Gulf crisis. In fact, the current account balance (CAB) followed an inverted 'U'-shaped pattern during these years. From a *negative* of 3.1 per cent to 0.6 per cent in 2000-01, it became a *surplus* of 0.7 per cent in 2001-02, 1.3 per cent in 2002-03 and 2.3 per cent in 2003-04. Thereafter it again became a deficit.

Some of the factors responsible for improvement in the BOP situation during these years had been an increase in the ratio of exports to imports from a low of 66 per cent in 1990-91 to an average of 75 per cent during these years. The trade deficit also declined from 3 per cent in 1990-91 to 2.3 per cent in 2003-04. But it increased in subsequent years and was 6.9 per cent in 2006-07. This was due to a rise in POL and non-POL imports.

It reflected increasing alignment between export and import performance of India. Moreover, exports had recovered substantially in value terms. There was also a phenomenal increase in net inflow of invisibles. On the invisible account, there was a net outflow of \$0.24 billion in 1990-91. But from 1991-92 onwards there had been a net inflow which reached a high of \$53.4 billion in 2006-07. The growth in invisibles was supported by non-factor services consisting of travel, transportation, insurance, financial services, communication and business services which increased from \$0.98 billion in 1990-91 to \$ 31 billion in 2006-07.

The foreign exchange reserves which were \$5.8 billion in 1990-91 rose to \$199 billion in 2006-07. The trend in reserves is largely governed by the trend in foreign currency assets component which tends to move in either direction on a day-to-day basis. The level of foreign currency assets is used for import cover and current payments cover.

There had been also an increase in the payments of investment income in the form of higher dividends, profits and royalty to foreigners. They are a major component of invisible payments. These outflows were \$7.7 billion in 1990-91 which increased to \$ 61.7 billion in 2006-07. These outflows are a minus item in the BOP.

Turning to the mode of financing the current account deficit, ECBs (External Commercial Borrowings) on a net basis increased from \$ 3.3 billion in 1990-91 to \$ 22.8 billion in 2006-07. Net external assistance had been continuously falling. It declined from \$ 2.2 billion in 1990-91 to \$ 17.6 billion in 2006-07. But NRI deposits (net) had been on the increase due to the various measures adopted by the RBI to attract them. They increased from \$ 1.5 billion in 1990-91 to \$ 41.2 billion in 2006-07.

Foreign investment inflows help to mitigate the pressure on the overall BOP. They include foreign direct investment, investment by FIIs and Euro equities and shares. They were \$ 1.1 billion in 1990-91 and they increased to \$ 132.6 billion in 2006-07.

The residual financing requirements are met by drawing down foreign exchange reserves as part of the policy to manage the BOP and to counter the speculative pressure on the exchange rate of the rupee.

8. CAUSES OF ADVERSE BALANCE OF PAYMENTS

The followings have been the main causes of India's adverse BOP situation from time to time.

1. Developmental Imports. India has to import a wide variety of goods to fulfil the targets of its development plans. To establish economic infrastructure like power, transport, irrigation, etc. and heavy, defence and basic industries, it has been importing capital equipment, machinery, raw materials, spares and components in large quantities thereby raising the level of imports.

2. Consumer Goods. Even though India has become almost self-sufficient in foodgrains, it has to import a variety of consumer goods like sugar, pulses, edible oils, etc. to meet the increasing demand of its rapidly growing population.

3. Defence Equipments. Due to wars with Pakistan and a constant threat from our hostile neighbours leading to insurgency from outside and within the country, India has to import defence equipments.

4. POL Imports. Another important factor has been the increase in the prices of petroleum, oil and lubricants (POL) in 1973-74, 1980-81, 1990-91 (due to the Gulf War) and from 1999-2000 onward. Besides, there has been a rapid growth in their domestic demand despite rise in the production of POL within the country. This has necessitated their larger imports.

5. External Debt. India has accumulated huge external debt to the tune of more than \$ 170 billion by 31 March 2007 which it has to repay every year in instalments as principal and interest. This makes the BOP unfavourable.

6. Inflationary Pressures. Another cause is the high cost of production of Indian exports due to inflationary pressures in the economy. In the face of highly competitive international markets, high costs are a big hurdle to exports. So India cannot compete with China, Sri Lanka, etc. in exporting its products.

7. Bad Quality of Exports. India's exports of some products are of sub-standard quality which cannot compete with better quality products of its competitors. Consequently a number of our non-traditional exports have declined.

8. Neo-Protectionism. Even though QRs (quantitative restrictions) are being completely eliminated under the WTO Agreement, developed countries are restricting exports from India by adopting a variety of non-tariff barriers like VERs (voluntary export restraints); export subsidies to their products; technical, health and other

regulations, etc. on exports and forming regional groupings or associations.

9. Disintegration of USSR and East European Socialist Countries. Exports to East European countries and Russia declined from 7 per cent in 1960-61 to 1 per cent in 2006-07 due to the disintegration of Yugoslavia and USSR and the unification of Germany.

9. MEASURES TO CORRECT ADVERSE BALANCE OF PAYMENTS

To correct the large BOP deficit, the following measures have been adopted.

FISCAL AND MONETARY

The BOP deficit can be bridged by strict fiscal and monetary discipline in order to control aggregate demand within the economy. So long as the fiscal deficit is under control, the BOP situation does not deteriorate. For instance, during the Fifth Plan, the BOP was *plus* Rs. 1,404 crores. One of the reasons was a low fiscal deficit, 4 per cent of GDP. In the Sixth Plan, it was 6.3 per cent, in the Seventh Plan 8 per cent and 8.3 per cent in 1990-91. During these years, the BOP situation worsened. Since then, the fiscal deficit had been gradually reduced to 3.4 % in 2006-07.

Besides, reduction in the growth of money supply tends to reduce aggregate demand and hence inflation. During the first three five year plans, the growth of money supply was below 10 per cent. As a result, the inflation was kept under control. In subsequent years, efforts were made to keep the growth of money supply below 15 per cent per annum. But when it crossed this figure, it increased aggregate demand which tended to raise the rate of inflation and hence aggravated the BOP situation. The Government had been

trying to control the growth of money supply through both quantitative and qualitative measures of credit control.

STRUCTURAL REFORMS

Prior to the reform era, there was a complex control regime with high tariff barriers and other QRs. In keeping with the policy of liberalisation, import and export trade have been liberalised except for a few consumer goods. In the industrial field, many industries have been delicensed. Many areas previously reserved for the public sector have been opened to private and foreign firms. New policy measures have been adopted to attract FDI and foreign portfolio investment. Wide ranging financial sector reforms have been carried through with openness and outward orientation. The structural reforms will improve further the efficiency and competitiveness of the India economy and facilitate the expansion of exports and supplies of goods and services needed to support long-term growth and thus control the BOP deficit.

EXCHANGE RATE ADJUSTMENT

The RBI manages and controls the country's foreign exchange in order to correct the deficit in BOP. Blanket foreign exchange permits are issued to exporters in lumpsums. They are allowed to receive export proceeds through normal banking channels. The payments for imports against foreign currency loans/credits extended by foreign governments/FIIs are made either by the Direct Payment Method, also known as Letter of Commitment Method, or Reimbursement Method.

Since 1991, significant changes have been made in the exchange rate system. In July 1991, the rupee was devalued by about 20 per cent with respect to the US dollar in two stages, followed by export subsidies designed to improve export incentives and make them more uniform. This improved the profitability of exports. Simultaneously, the Exim Scrip Scheme was introduced under which certain imports were permitted against export entitlement. This was followed by partial convertibility of the rupee in 60 : 40 ratio effective

March 1992. This was known as LERMS (liberalised exchange rate management system). Under it all foreign exchange receipts on current account transactions (export remittances, etc.) were required to be surrendered to the authorised dealers at the free market rate who, in turn, surrendered to the RBI 40 per cent of their purchases of foreign currencies and sold 60 per cent in the free market to all importers and persons travelling abroad. Effective March 1993, the dual exchange rate system was replaced by the UERS (unified exchange rate system). Under this system, the 60 : 40 ratio was extended to 100 per cent conversion of the rupee at market rates for all export and import goods only. But the official exchange conversion rate continued for invisible items of current account and all capital account payments. Effective March 1994, the current account convertibility of the rupees was introduced. As a result, relaxations in the exchange control regulations on invisible items were made. Now there are no exchange restrictions on current account international transactions. There is no officially fixed exchange rate of the rupee. However, capital account controls still exist.

EXTERNAL FINANCING

External financing in the form of loans and grants, both bilateral and multilateral, from Aid India Consortium, loans from the World Bank, IMF, ADB and other international agencies, ECBs, NR deposits, direct and portfolio foreign investment and foreign exchange reserves have been the main sources for bridging the gap in India's BOP.⁴

EXPORT PROMOTION POLICY

Export promotion is an instrument to earn more foreign exchange to bridge the BOP gap. As our exports have diversified considerably over the years, the need is to adopt export promotion measures in keeping with the problems faced by each category of exports. There are some commodities which are subject to demand constraints such as jute, tobacco, tea, etc. They are faced by protectionist policies of the developed countries. There are other items which

have supply constraints in the form of high cost of production, competitive prices, low quality, etc. There are numerous and varied products in this category such as iron ore, marine products, engineering and chemicals, sugar, light electricals, plastics, cashews, coffee, products of agriculture and allied activities, etc. Still there are other products which have both demand and supply constraints such as textiles, leather and leather manufactures, carpets, handicrafts and garments. Products with demand constraints need competitive prices based upon incentives, improving their quality, attractive presentation and economies of scale in transactions. On the other hand, the case of exports for which supply is the major constraint, domestic factors like economies of scale in production, transport and quality products in sufficient quantities are more important. One of the weaknesses in our export efforts is marketing. Often exporters miss the opportunity of participating in global tenders because of late receipt of information. Sometimes, changes in policies and procedures in overseas countries do not reach them in time. There is thus the need for an organisation which may provide exporters with the export market intelligence on a regular basis.

[4.](#) For details, refer to the next chapter.

For export promotion, a number of measures have been adopted from time to time. These include : (1) a number of organisations dealing with foreign trade with a definite set of objectives; (2) intensive schemes for the import of raw materials, machinery and capital equipment duty free or at concessional rates for export units; (3) fiscal incentives such as duty draw-back and duty exemption scheme, cash compensatory support, duty entitlement pass book (DEPB) scheme, and concessions in direct taxes; (4) 100 per cent export-oriented units scheme with duty free imports of capital goods, plant and equipment, raw materials and components, indigenously available capital goods, raw materials, etc., without any central excise duty, and finished products exempt from excise and other duties; (5) special rail and shipping facilities; (6) liberalisation of exports by abolishing and/or reducing export duties on commodities

from time to time, granting liberal credit facilities to exporters, etc., (7) formation of Free Trade Zones (FTZ) and Special Economic Zones (SEZ); (8) starting of Export Processing Zones (EPZ), Export Oriented Zone (EOU) and Export Promotion Capital Goods (EPCG) schemes; (9) providing various incentives to Export and Trading Houses and Star Trading Houses; (10) the establishment of Agricultural Export Zones (AEZ) to promote agri-exports; (11) allowing all categories of foreign exchange earners to retain 100% of their foreign exchange earning in their *Exchange Earners' Foreign Currency Accounts*; and (12) starting of Vishesh Krishi and Gram Udyog Yojana for exporting village and cottage industries products.

Moreover, “counter trade” is another export strategy whereby payments for the import of various materials and other inputs are made through the export of domestic manufactured goods to the other country.

Its Evaluation. The problem with our export promotion policy is that there is a plethora of schemes and organisations which lead to unnecessary duplication. Both the Government and the exporting community should devise jointly a dynamic export marketing strategy for various items and sectors. Such a strategy should cover an appropriate marketing mix of proper pricing, competitive production, distribution set-up abroad and overseas promotion.

The need is to have an integrated development plan for exports which should fit in the overall development programme of the country. The export promotion policy should not only aim at increasing foreign exchange earnings but also raising income and employment within the economy.

Besides, the following adjustments are required for a broad-based, rapid and sustained growth of exports : (a) Reduction in domestic excess demand and increase in the supply of goods and services for export; (b) to further bring down trade restrictions in order to increase competitiveness in international markets; and (c) to improve the competitive position of Indian agricultural and industrial products continuously through technological and managerial improvements

and to adapt rapidly to changes in international market conditions. This requires the development of capacities for adaptation and innovation.

IMPORT SUBSTITUTION

Import substitution is another measure to bridge the balance of payments gap. It aims at saving foreign exchange. For almost three decades since the beginning of the Second Plan, import substitution had been the main element in India's Trade Policy. The aim of this inward-looking strategy "was to restrict the availability of luxury consumer goods to the minimum either through domestic production or through imports, and expand the base for capital goods through import substitution so that capacity of the economy to produce both consumer and capital goods at a future date could be very high."⁵ Later, the policy of import substitution was extended to consumer goods of all types for export as well. This policy was instrumental in establishing a strong industrial base in the country. But the policy of import substitution was indiscriminate and excessive and led to the development of a number of industries under excessive protectionism which did not conform to the criteria of social essentiality. Further, it led to the production of low quality and high-cost commodities as compared to the imported goods over a period of time that led to a "technological gap" and also resulted in poor export performance. These aspects have been corrected by the outward-looking policy of export promotion and liberalisation since the 1990s.

CONCLUSION

The success of any policy, whether in the field of export promotion or import substitution depends on the capacity of the economy to increase production for meeting both the domestic requirements as well as international demand. This requires high rate of investment, adequate growth of infrastructure, vigorous resources mobilisation, strict demand management, freeing of exports from restrictions and other regulatory measures including indirect taxation, improvements in productivity and healthy industrial relations. Instead of harping on

the slogan “export or perish”, India should adopt the slogan “export and flourish” as the guiding principle for the future.

10. INDIA'S FOREIGN TRADE POLICY

India started its planned development with the emphasis on import substitution from the Second Plan. To implement this strategy, the Government adopted a regime of tight controls on imports in 1959 which included licensing, quotas, banning, etc. of imports and the adoption of some tariff and non-tariff measures for providing protection. This was a policy of “export pessimism” which did not view foreign trade as an engine of India’s economic development. From 1962, export promotion measures were introduced along with the continuation of import substitution strategies. The system of controls over imports and exports was selective and discretionary rather than across-the-board and relied on quantitative restrictions rather than on policy instruments that affected market prices.⁶ Nevertheless, until the end of 1970s, exports were primarily regarded as a source of foreign exchange rather as an efficient means of allocating resources. Import substitution over a wide area remained the basic premise of the development strategy”.⁷

⁵ V.R. Panchmukhi, *Op.cit.*

⁶ T.N. Srinivasan, “Foreign Trade Policies and India's Development”, in Uma Kapila (ed.), *Indian Economy Since Independence*, 7/e, 1996

With the devaluation of the rupee in June 1966, export subsidies were eliminated and import duties were reduced. But this was short-lived and from 1968 onwards, the system of import controls, licensing and quantitative restrictions (QRs) was reintroduced and a number of export promotion policies were started. In 1975-76, the Open General License (OGL) system was introduced and from 1978 the policy of banned items in the import list was discontinued and they were regarded as OGL items. Further, rules concerning import

allocation were made simpler and non-competing essential imports were liberalised. But protective quotas remained intact.

“Foreign trade policy issues became the subject of intensive discussion in early eighties. It came to be realised that a scheme of import licensing ...could only lead to inefficiency. The view gained ground that a more liberal policy of imports of capital goods and technology would enable India to reap the benefits of international division of labour. The attempt, therefore, was to move away from import substitution... .It also became increasingly clear that production for exports could not be isolated from production for the home market and that trade policy had to be integrated with the policy for domestic industrialisation”.⁸

These views were the outcome of the Alexander Committee (1978), the Tandon Committee (1982) and the Hussein Committee (1984). Recommendations made by these committee reports were sought to be implemented in the annual LTMX (long term import and export) policy announced by the Government during the ensuing years in March 1985, 1988 and 1990. They aimed at liberalisation of imports, especially of capital goods and raw materials, and emphasised on export incentives through preferential import licenses. This was the policy of *growth-led exports* rather than *export-led growth*. This was also the beginning of an *outward-looking trade policy*. *First*, the OGL list of imports was expanded with the inclusion of new items and with transfers from the licensed list. *Second*, imports of capital goods and raw materials were sought to be liberalised on a priority basis by shifting those to the OGL list and via tariff reductions. *Third*, export drive, especially the emphasis on export promotion was relatively given greater attention.

The import licensing system developed over the years was characterised by bureaucratic delays and arbitrariness and bred corruption and misuse. It was simplified in July 1991 with the introduction of Eximscrips which were tradable import licenses issued to exporters for 30 per cent of the value of exports and like other import licenses at a premium. The system of Eximscrips was

abolished in March 1992 and was replaced by LERMS (liberalised exchange rate management system) under which all capital goods and raw materials and components were freely importable subject to tariff protection as long as foreign exchange to pay for these imports was obtained from the market at 60 : 40 ratio of foreign exchange earnings. The LERMS was replaced by the UERS (unified exchange rate system) in March 1993 which permitted 100% conversion of the rupee for all exports and imports of goods. This was further replaced by the Current Account Convertibility of the Rupee from March 1994 which was followed by further relaxations in the exchange control regulations.

In the trade policy reforms, there has been greater emphasis on *export promotion*⁹, whereby various forms of incentives have been provided to exporters almost every year. “Over the years, significant changes in the EXIM policy have helped to strengthen the export production base, remove procedural irritants, facilitate input availability besides focusing on quality and technological upgradation and improving competitiveness. Steps have also been taken to promote exports through multilateral and bilateral initiatives, identification of rural thrust areas and focus regions.”¹⁰ So far India has 18 bilateral and multilateral trade agreements. *

⁷ C. Rangarajan, “Emerging Issues in India’s Balance of Payment and the Exchange Rate Management”, *Prof. C.N. Vakil Centenary Commemorative Lecture*.

⁸ C. Rangarajan, *Ibid*.

⁹ For details, refer to Export Promotion in the previous section, which should be given in Foreign Trade Policy.

Removal of Quantitative Restrictions (QRs). One of the important aspects of India’s trade policy has been the gradual removal of QRs.¹¹ Under the WTO Agreement, every member country is required to remove QRs, except in case of poor BOP situation. India had agreed to phase out all QRs by 2003. On a case filed by the US in the WTO Dispute Settlement Board in May 1997, the latter found

them unjustified and asked India to phase all QRs by 1 April 2001. In May 1997, India had 2,714 imports items on which QRs existed which were phased out by 1 April 2001. These items included such consumer goods as readymade garments, textiles, electronic goods, transport vehicles, processed foods, wine and liquors, meat and poultry, agri-products, stationery, etc. Despite scrapping QRs, there is a banned or prohibited list of 59 items which includes products of plant and animal origin. There is also a restricted list of 518 import items such as live animals, live poultry, etc. Other non-tariff barriers are canalisation of such products as crude oil, agricultural products like wheat, rice, maize, copra and coconut oil, etc. which can be imported (canalised) only through nominated state trading agencies. Thus the removal of QRs merely affects a specific list of consumer goods.

Its Evaluation. It is feared that the removal of all QRs will adversely affect Indian industries with the free flow of cheap foreign products.* It is true that some import-competing industries will be unable to face foreign competition and be forced to lay off workers. So in order to survive, Indian manufacturers will have to raise the quality of their products to global standards. Of course, price differentials do matter for Indian consumers. There are very few Indians who can afford costly foreign products. In case the foreign products are cheaper than their Indian counterparts, the Government can always impose tariff duties, imposing countervailing duties in cases of dumping and even issue special import license (SIL) to protect domestic producers.

Conclusion. As a result of the new trade policy discussed above, exports have vigorously responded to the removal of protective measures. Domestic industry has been encouraged by expanded availability of imported inputs and capital goods and to meet the challenge of competing in the international market.

11. INDIA'S BILATERAL AND MULTILATERAL TRADE AGREEMENTS

In order to expand its export market, India has entered into Comprehensive Economic Cooperation Agreements (CECAs) with a number of countries which cover free trade agreements (FIAs) and Regional Trade Agreements (RTAs). In certain cases, negotiations are going on. They are detailed below :

INDIA-SRI LANKA FREE TRADE AGREEMENT (ISLFTA)

India-Sri Lanka Free Trade Agreement, signed in December 1998 and in operation since March 2000, provides for tariff reduction/elimination in a phased manner on all items except the negative list and tariff rate quota (TRQ) items. While India has already completed the tariff elimination programme in March 2003, Sri Lanka was to reach zero duty in 2008. The two countries have since initiated negotiations in August 2004 on Comprehensive Economic Partnership Agreement (CEPA) which covers trade in services and investment.

AGREEMENT ON SAFTA

The Agreement on South Asia Free Trade Area (SAFTA) was signed during the 12th SAARC Summit in January 2004 in Islamabad. Since then, negotiations on four annexes Rules of origin, Sensitive lists, Revenue compensation for LDCs and Technical assistance to LDCs—have been completed. The tariff liberalization programme under the Agreement has been implemented from July 1, 2006.

10. G.O.I., *Economic Survey, 2000-2001*.

* Given at the end of the chapter.

11. QRs are restrictions on the quantity of a product to be imported other than tariffs or duties.

* For details on this issue, students should also study under *Doha Round* in Ch. 54.

FRAMEWORK AGREEMENT ON COMPREHENSIVE ECONOMIC COOPERATION BETWEEN ASEAN AND INDIA

Framework Agreement on Comprehensive Economic Cooperation was signed on October 8, 2003 in Bali. The Trade Negotiating Committee (TNC) is negotiating FTA in goods between ASEAN and India.

FRAMEWORK AGREEMENT FOR ESTABLISHING FREE TRADE AREA BETWEEN INDIA AND THAILAND

The Framework Agreement for establishing Free Trade Area between India and Thailand was signed in October 2003 in Bangkok. The Early Harvest Scheme covering 82 items for exchange of concessions between India and Thailand has been implemented with effect from September 1, 2004. The negotiations for FTA in goods and negotiation on services and investment are at a preliminary stage.

FRAMEWORK AGREEMENT ON THE BIMSTEC FTA

The Framework Agreement on the BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical & Economic Cooperation) Free Trade Area was signed in February, 2004 at Phuket by Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka and Thailand. Negotiations are being held for FTA in goods, services and investment.

COMPREHENSIVE ECONOMIC COOPERATION AGREEMENT (CECA) BETWEEN INDIA AND SINGAPORE

India-Singapore CECA, signed on June 29, 2005, came into force on August 1, 2005. The Agreement provides for Early Harvest Scheme, phased reduction/elimination of duties on products other than those in the negative list by India by April 1, 2009, whereas Singapore eliminated duties on all products originating from India from August 2005. CECA also covers investment, services, Mutual Recognition Agreement and customs cooperation.

INDIA-AFGHANISTAN PREFERENTIAL TRADE AGREEMENT

A Preferential Trade Agreement (PTA) between India and Afghanistan was signed on March 6, 2003. India has granted concessions on 38 products, mainly fresh and dry fruits, in return for concessions on 8 items for exports to Afghanistan.

INDIA—MERCOSUR PREFERENTIAL TRADE AGREEMENT (PTA)

A PTA was signed between India and MERCOSUR (Brazil, Argentina, Uruguay and Paraguay) on January 25 2004 in New Delhi. The PTA will be operational after its ratification by the legislatures of MERCOSUR countries.

BANGKOK AGREEMENT—APTA

Bangkok Agreement is a PTA signed in July 1975 among Bangladesh, Republic of Korea, Sri Lanka and India, China acceded to this Agreement in 2001. This Agreement has been renamed as Asia Pacific Trade Agreement. The Third Round concessions have been implemented from September 1, 2006.

GLOBAL SYSTEM OF TRADE PREFERENCE (GSTP)

Two rounds of negotiations have been held under GSTP signed in April 1998, 44 developing countries have acceded to this Agreement. The third round of negotiations, launched in June 2004, was to be concluded by the end of 2007.

SAARC PREFERENTIAL TRADE AREA (SAPTA)

Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka are participants in the Agreement signed in April 1993. Four rounds of negotiations have been concluded under SAPTA. Concessions exchanged during the four rounds of SAPTA have already been implemented.

INDIA-CHILE FRAMEWORK AGREEMENT ON ECONOMIC COOPERATION

A Framework Agreement on Economic Cooperation was signed between India and Chile in January 2005. The Agreement on PTA was signed in March 2006 and implemented in August 2007.

INDIA-KOREA CECPA

India and Korea constituted a Joint Task Force for having negotiations on FTA in goods, services and investment under CECPA. Negotiations are being held between the two countries.

INDIA-CHINA JOINT TASK FORCE (JTF)

A Joint Task Force between Indian and China has been set up to study in detail the feasibility of and the benefits that may derive from the possible China-India Regional Trading Arrangement and also give its recommendations regarding its content.

INDIA-GULF COOPERATION COUNCIL (GCC) FTA

A Framework Agreement on Economic Cooperation was signed between India and GCC in August 2004. Negotiations on India-GCC FTA are being held where in the GCC side agreed to include services as well as investment and General Economic Cooperation, along with goods, in the proposed FTA.

PTA/CECPA BETWEEN INDIA AND MAURITIUS

A Preferential Trade Agreement (PTA) /Comprehensive Economic Cooperation and Partnership Agreement (CECPA) is being negotiated with Mauritius which is likely to be finalized shortly.

Source : G.O.I. Economic Surveys : 2006-07 and 2007-08.

EXERCISES

1. Analyse the latest trends in the volume, composition and direction of India's foreign trade.

2. What structural changes have occurred in India's foreign trade during the 1980s?
3. What measures do you suggest for improving the balance of payments position of India?
4. Explain India's balance since 1990. What measures have been adopted to correct it?
5. Discuss critically India's Trade Policy? Discuss the impact of removal of quantitative restrictions (QRs).



FOREIGN CAPITAL IN INDIA

1. INTRODUCTION

India receives foreign capital in the form of : (a) direct foreign investments by MNCs; (b) indirect investments, known as 'portfolio' or 'renter' investment when foreign concerns/individuals subscribe to the shares and debentures of Indian companies; (c) foreign collaborations between private Indian and foreign concerns, between Indian government and foreign concerns, between Indian and foreign Governments; and **lastly**, public foreign capital, known as foreign aid or external assistance, in the form of grants and loans on bilateral basis from developed countries, and multilateral basis from the Aid India Consortium, IBRD, IMF, other UN agencies and ADB.

2. GOVERNMENT POLICY TOWARDS FOREIGN CAPITAL

The Government of India's policy regarding foreign capital was enunciated in the Industrial Policy Resolution of April 6, 1948 and in the Prime Minister's Statement in the Constituent Assembly in April, 1949. The latter laid down that "(a) the participation of foreign capital and enterprise should be carefully regulated in the national interest by ensuring that major interest in ownership and effective control should, save in exceptional cases, always be in Indian hands, that the training of suitable Indian personnel for the purpose of eventually replacing foreign experts will be insisted upon in all such cases; (b)

there will be no discrimination between foreign and Indian undertakings in the application of general industrial policy; (c) reasonable facilities will be given for the remittance of profits and repatriation of capital consistent with the foreign exchange position of the country; and (d) in the event of nationalization, fair and equitable compensation will be paid.”

Since then the Government had scrupulously adhered to this policy statement and had been granting facilities to foreigners to invest and collaborate in those fields which were considered essential for the country's development; those which required large capital investments and complex production processes; those which helped to produce import-substituting and export-oriented products; those which undertook to train Indian entrepreneurs, technicians and labour in the operation of the enterprise; and those which helped to improve the country's foreign exchange resources.

It was, however, in the Industrial Policy Statement of 1973 that a clearcut policy with regard to foreign concerns and subsidiaries and branches of foreign companies was laid down for the first time. All such companies were made eligible to participate in the group of 19 industries specified in Appendix 1, but were ordinarily excluded from other industries. They were to be on the basis of foreign collaboration with Indian entrepreneurs in the field of equity capital, know-how and technology. The Industrial Policy Statement of 1977 restricted foreign equity participation to 40 per cent. The participation of foreign investment and foreign companies was made strictly in accordance with Foreign Exchange Regulation Act (FERA). It was also laid down that the Government would issue a list of industries where no foreign collaboration was deemed necessary.

The Industrial Policy Statement of 1980 laid the following guidelines regarding foreign collaboration and technology. In order to promote technological self-reliance, the Government recognised the necessity of continued inflow of technology in sophisticated and high priority areas. In areas, where Indian skills and technology were not adequately developed, the Government would prefer outright

purchase of the best available technology so as to adapt it to the needs of the country. Indian firms which were permitted to import foreign technology were required to set up adequate R & D facilities so that imported technology was properly adapted and assimilated within the country.

Regarding participation of foreign investment and foreign companies in India's industrial development, the Government made it clear that the provisions of the FERA would be strictly enforced on the existing foreign countries. But a higher percentage of foreign equity was considered in priority industries if the technology was sophisticated and not available in the country, or if the venture was largely export-oriented.

For all approved foreign investment, financial and/or technological, there was complete freedom for remittance of profits, royalties, dividends, as well as repatriation of capital, subject to rules and regulations common to all. As a rule, majority interest in ownership and effective control was in Indian hands. There were, however, exceptions in highly export-oriented and/or sophisticated technology areas. In hundred per cent export-oriented areas, even a fully owned foreign company was allowed.

In the Industrial Policy Statement of 1991, the Government announced a more liberalised foreign investment policy. Its main features with modifications in subsequent years had been :

(i) as against the past policy of considering all foreign investment on a case-by-case basis within the ceiling of 40 per cent of total equity investment, the new policy provides automatic approval of direct foreign investment up to 51 per cent of foreign equity holding;

(ii) automatic approval is given for foreign direct investment in 34 high priority, capital-intensive, hi-technology industries—provided the foreign equity covers foreign exchange involved in importing capital goods, and outflows on account of dividend payments are balanced by earnings over a period of 7 years from the commencement of production;

(iii) technology imports for such industries are automatically approved for royalty payments upto 5 per cent of domestic sales and 8 per cent of export sales or lumpsum payments of Rs. 1 crore;

(iv) foreign technology agreements are also liberalised for the 34 industries with firms left free to negotiate the terms of technology transfer based on their own commercial judgement and without the need for prior Government approval for hiring of foreign technicians and foreign testing of indigenously developed technologies;

(v) in order to avail of professional marketing activities for systematic exploration of world markets for foreign products, foreign equity holding upto 51 per cent are permitted for trading companies as well;

(vi) the procedures for investment in non-priority industries have been streamlined. A special Board, called the Foreign Investment Promotion Board (FIPB), has been established to negotiate with large international firms and to expedite the clearances required. The FIPB also considers individual cases involving foreign equity participation of more than 51 per cent;

(vii) existing foreign companies are allowed to raise their equity to 51 per cent without approval;

(viii) NRIs and overseas corporate bodies predominantly owned by them are permitted to invest up to 100 per cent equity in high priority industries with freedom to repatriate their capital and income. NRI investment up to 100 per cent is also allowed in export houses, trading houses, star trading houses, EOUs, hospitals, sick industries, hotels and tourism related industries, houses and infrastructure;

(ix) disinvestment of equity by foreign companies is allowed at market rates on stock exchanges with permission to repatriate the proceeds of such disinvestments;

(x) FDI is allowed in the priority areas like power, oil refining, marketing of gas, electronics and electronic equipments, chemicals, food processing, telecommunication, industrial machinery, etc.;

(xi) provisions of FERA have been liberalised whereby companies with more than 40 per cent of foreign equity are also treated on par with Indian owned companies;

(xii) India has signed the MIGA Protocol for the protection of foreign investment;

(xiii) foreign companies have been allowed to use their trade marks in Indian market;

(xiv) FIIs are allowed to invest in Indian capital markets up to 30 per cent of the paid-up capital of a company after registration with SEBI;

(xv) investment norms for NRIs have been liberalised so that NRIs and overseas bodies can buy shares and debentures of Indian companies; and

(xvi) Indian companies have been permitted to operate in international capital markets through Euro-equity shares.

Since May 2001, the Government has opened up the following new sectors to foreign investment : (a) 26 per cent foreign equity allowed in defence production which has been opened 100 per cent to private Indian companies; (b) FDI limit raised to 49 per cent in the banking sector; (c) drug and pharmaceutical sector, airports, township development, hotels and tourism, courier service and mass rapid transport system opened to 100 per cent FDI; (d) FDI up to 74 per cent permitted for internet service providers with gateways, radio paging, end-to-end hand-width in the telecom sector, and FDI up to 26 per cent in the insurance sector; and (e) NRI investors allowed to repatriate foreign exchange.

3. FOREIGN CAPITAL IN INDIA

India has been receiving foreign capital in the form of direct and portfolio foreign investment, external commercial borrowing (ECBs), NRI deposits and external assistance. We discuss them as under.

EXTERNAL ASSISTANCE

India has been receiving foreign aid in the form of loans, grants and under the United States Public Law 480/665, etc., repayable in convertible currency and rupees. The gross and net aid received in different Plan periods is indicated in Table 1. The table shows that net aid as a percentage of Plan expenditure rose from 9.1 per cent in the First Plan to 28.1 per cent in the Second Plan, to 27.2 per cent in the Third Plan, to 33.9 per cent in the three Annual Plans and thereafter it started declining to 11.2 per cent in the Fourth Plan, to 9.1 per cent in the Fifth Plan, to 5.5 per cent in the Sixth Plan, and 4.6 per cent in Seventh Plan. It was 5 per cent in the Eighth Plan, 4.3 per cent in the Ninth Plan and 2.9 per cent in the Tenth Plan.

Table 1 shows authorisation and utilisation of external assistance. The overall external assistance authorised to India from April 1951 to March 1997 was of the order of Rs. 3,59,380 crores. Of this, Rs. 2,69,170 crores had been utilised, which shows a utilisation rate of 75 per cent. This means that the absorptive capacity of the economy is not quite high. But over the years the utilisation rate has not been uniform. Rather, it has been fluctuating, sometimes reaching hundred per cent as during the Fourth Plan and at other times even exceeding hundred per cent as during the Third Plan (102%), and the Fourth Plan (100.3%)*, as revealed by Table 1. But during the first two Plans the rates of aid utilisation were 55 and 56 per cent respectively. This was due to project aid by the donor countries and time consuming formalities of preproject surveys in India, delays imposed by the industrial and import licensing procedures of the Government, and lack of coordination in various government agencies. After the recommendations of the V.K.R.V. Rao Committee on Utilisation of External Assistance in 1964, the procedures for utilisation have been streamlined. Consequently, the rate of utilisation had been quite high, except for the Seventh Plan when it slumped to 50 per cent. This has been primarily due to the delay in authorisation on the part of the consortium countries.

* The rate of utilisation above 100% was due to the utilisation of assistance of the previous Plan.

TABLE 1. AID AUTHORISATION AND UTILISATION

<i>(Rs. in crores)</i>			
<i>Period</i>	<i>Authorised</i>	<i>Utilised</i>	<i>Rate of % Utilisation</i>
First Plan	362	201	55
Second Plan	2539	1430	56
Third Plan	2810	2877	102
Annual Plan	3172	3230	102
Fourth Plan	4172	4184	100.3
Fifth Plan	9844	7259	94
Sixth Plan	16761	10904	65
Seventh Plan	44971	22699	50
Eighth Plan	70892	56644	80
Ninth Plan	89035	71204	80
Tenth Plan	114822	89805	78
Total	359380	270437	75

Source : G.O.I., Economic Surveys.

Of the total aid utilised by India, loans are the main components. For instance, in 2006-07 loans accounted for 89 per cent and grants 11 per cent of the total aid utilised. Of the loans, 30 per cent are in the form of untied credits and the remaining are tied credits. Since the bulk of the loans are tied, they tend to push up the cost of the projects by more than 30 per cent to India because the country is required to pay more than the competitive world market prices to the creditor country. It increases further when, as in the case of US supplies, India is forced to get machinery, spare parts, raw materials, etc. in American ships. This not only tends to reduce the real value of aid to the country but also distorts the allocation of resources within the country.

EXTERNAL COMMERCIAL BORROWINGS (ECB)

ECBs include loans from commercial banks and other financial institutions, bonds and borrowings from International Finance Corporation, ADB, etc. by Indian public sector, private sector, financial institutions, etc. They provide an additional source of funds for Indian companies for financing the expansion of existing capacity and new investment and to take advantage of the lower interest rates in international markets. India's reliance on ECBs has been on the increase since the 1980s. Gross borrowings rose from \$ 10.2 billion in March 1991 to \$ 41.7 billion in March 2007.

NRI DEPOSITS

Non-resident Indian deposits are a major source of capital inflows into India. Indian nationals and persons of Indian origin resident abroad can open bank accounts in India freely out of funds remitted from abroad or foreign exchange brought in India or out of funds legitimately due to them in India. Total outstanding balances under all NR deposits schemes increased from \$ 4.6 billion in March 1986 to \$ 10.2 billion in March 1991. But declined to \$ 7.8 billion in March 1992, due to the Gulf War. These flows gained momentum as a result of relaxations of reserve requirements and rationalisation of interest rates on deposits in subsequent years. As a result, they increased to \$41.2 billion in March 2007.

FOREIGN INVESTMENT

Foreign investment comes to India in the form of foreign direct investment (FDI) and portfolio investment. Prior to the beginning of liberalisation, the inflows were very small, being \$ 113 million in 1990-91. Of these, \$ 107 million was FDI and \$ 6 million was portfolio investment. With liberalisation, portfolio investment comprising Foreign Institutional Investors (FIIs) and investment under ADRI, GDR route, and FDI had increased to \$ 29.2 billion in 2006-07. Of this, portfolio investment in 2006-07 was \$ 7.1 billion and FDI \$ 22.1 billion.

4. INDIA'S EXTERNAL DEBT

India's external debt consists of bilateral and multilateral government and non-government external assistance, external commercial borrowings (ECBs) and IMF liabilities, and outstanding NRI deposits.

The volume of India's external debt started growing rapidly during 1980s. From about US \$ 8 billion in 1970, it grew to \$ 21 billion in 1980, to \$ 76 billion in 1990 and to \$ 169.6 billion at the end of March 2007. Over the years, the composition of debt stock has undergone a notable change. In 1980, the external debt stock consisted mainly of external assistance which constituted 90 per cent of the debt stock. Since then, the share of external assistance had been on the decline and that of ECBs on the increase. The share of external assistance fell to 60 per cent in 1990 and to 21 per cent in 2007. On the other hand, the share of ECBs increased from 12 per cent in 1990 to 25 per cent in 2007.

Net NRI deposits as the ratio of total capital flows fell from 18.3% in 1990-91 to 9.3% in 2006-07. While net FDI as percentage of GDP increased from zero in 1990-91 to 0.9% and portfolio investment from zero to 0.8% over the period.

But external debt to GDP ratio which measures the size of debt in relation to the domestic output improved from 28.7 per cent in 1991 to 17.9 per cent in 2007.

Another feature of India's external debt is the high share of concessional debt in the total debt. This remained fairly stable on an average at 45 per cent during 1990-96. But had been on the decline since then being 38.5 per cent in 2000 and 23.3 per cent in 2007. This continues to be high by international standards. According to World Bank's *Global Development Finance, 2006*, India's share of the concessional debt was the highest among the top 10 debt countries of the world in 2006. No doubt, India's external debt position has improved in recent years, but it is still alarming. In 2006 India ranked as the fifth largest debtor country after Brazil.

MEASURES TO REDUCE EXTERNAL DEBT

The stock of external debt in India should be such that debt service payments are within reasonable limits. But there is no way to determine what the debt service ratio should be. However, the general view is that the debt service ratio should not normally exceed 30 per cent. The country should try to keep this ratio below this level by increasing the export growth of goods and services at a faster rate.

With the decline in ODA, India will have to depend more on inflows of private foreign capital, especially FDI. The country should take more positive measures to attract such investment in infrastructure sectors which suffer from serious shortages of finance, technologies and management skills. During 1995-97 some measures have been adopted to attract FDI in infrastructure but they are not enough. "Unfortunately, although in terms of approvals a large amount is proposed for the infrastructure sector, a substantial part of the investment is flowing into the consumer goods industry. The investments in infrastructure sector have not made much progress largely on account of (a) slow progress in creating appropriate institutional framework; and (b) the many existing bureaucratic problems at the same level. The comparative slow progress in the area also reflects the still "wait and watch" policy to the large investors regarding the progress of many of the unfinished tasks under India's reform programme, guarantee or confidence on a proper rate of returns and other socio-political issues".² Therefore, India will have to further improve its economic management by reforming the institutional structure and through greater transparency in its regulatory framework.

So far as the portfolio investment is concerned, FIIs are undoubtedly the largest contributors of private foreign investment inflows. But portfolio investment is pro-cyclical in nature *i.e.* it flows in when the economy is progressing and flows out when it is in recession. Thus portfolio investment requires proper phasing and constant monitoring of flows. If FIIs go to the primary market, its volatility may become

less. But most FII in India invest in the secondary market. Thus steps should be taken to encourage FII to invest more in the primary market and at the same time their investment in the secondary market should be regulated in order to fix the composition of their inflows. Moreover, greater incentives should be provided to NRIs to open more non-repatriable deposits. For the increase in the non-repatriable deposits tends to reduce the external debt.

Keeping in view the fact that India's external debt has a large component of short-term debt, India's debt service payments will increase further which will make its debt position more alarming. With the shrinking of ODA, the country will need higher foreign exchange reserves than its historical level of three months import. Therefore, "What is urgently needed is high growth of exports, more inflows of non-interest bearing debt, NRI deposits, a growing economy with reduced interest rates and last but not the least, reduced fiscal deficit of the Government".³

By adopting the measures outlined above, it may be possible to bring down the external debt stock and the debt service ratio.

5. IMPACT OF FOREIGN CAPITAL ON INDIA'S ECONOMIC DEVELOPMENT

Foreign capital and technology have been playing a useful role in India's economic development. At the time of Independence, India inherited an industrial structure restricted to a few industries like textiles and sugar. There were only two steel plants and some limited development of engineering in railway workshops and assembly plants. Today, the industrial structure has been widely diversified covering broadly the entire range of consumer, intermediate and capital goods. In most of the manufactured products, the country has achieved a large measure of self-sufficiency with foreign collaboration but primarily through domestic efforts. This is indicated by the decline in relative share in industrial production of the traditional manufacturing sectors like food and textiles and the

substantial increase in the production of new sectors like engineering and chemicals. The diversification of industrial structure is further reflected in the commodity composition of our foreign trade in which the share of imports of manufactured products has steadily declined and that of engineering products has become a growing component of exports. The rapid stride in industrialisation has been accompanied by corresponding growth in technological and managerial skills obtained from abroad, not only for efficient operation of highly complex and sophisticated industrial enterprises but also for their planning, design and construction.

[2.](#) S.P. Gupta, *Mid-Year Review of the Indian Economy 1995-96*, 1996.

[3.](#) S.P. Gupta, *Mid-Year Review of the Indian Economy 1996-97*, 1997.

Foreign capital has also been instrumental in filling the gap between domestic saving and the capital needed for development. This is revealed by the net aid as percentage of Plan expenditure in Table 1. During the Second Plan, the Third Plan and the Three Annual Plans, its contribution had been very substantial, being 28 per cent, 27 per cent and 34 per cent respectively.

Further, foreign capital has helped the country in supplying the much needed foreign exchange thereby filling the foreign exchange gap to a considerable extent. The foreign exchange gap equals the difference between imports and exports which can be filled by net capital inflow, and build-up of foreign exchange reserves comprising foreign currency assets, gold, SDRs and Reserve Tranche position in the IMF. Foreign exchange reserves of India had been rising and declining from 1950-51 to 1990-91. But after that they have been on the increase. They increased from \$9.2 billion in 1991-92 to \$ 199.2 billion in 2006-07.

Foreign capital has been a major factor in India's drive towards self-reliance and import substitution in critical areas. Import substitution has led to diversification of domestic production and consequent reduction in imports for certain critical areas like machinery

manufacture, crude oil and petroleum products, infrastructural development, etc. Even in such areas as project consultancy, design engineering and project implementation, the country has been able to export these services. This has been made possible through the development of indigenous expertise with the help of foreign assistance.

Besides, foreign capital has helped in boosting our exports by modernising and diversifying India's industrial structure.

In fact, India has been receiving foreign technical assistance in two broad categories of services : (a) engineering-related such as feasibility studies, designing, and construction supervision; and (b) institutional improvements, project-related training and management and policy studies. This has helped in upgrading Indian expertise and personnel to international levels.

Foreign aid has increased India's ability to cope with shortfalls in food production and raw materials for consumer goods industries. India has been importing substantial quantities of foodgrains, oils and new materials at concessional terms during recurring droughts. Help by international organisations in the field of agricultural research has led to the development of new agricultural technologies in tools, implements, seeds, irrigation, cropping pattern, better farm practices, etc. This has resulted in manifold increase in food production. Thus it is on the basis of food imports and increased food production within the country, that the Government has been able to build buffer stocks and stabilise food prices.

Besides, foreign aid from international organisation like the World Bank and IDA has helped India in expanding and modernising its irrigation and power potential, development in rail, road and sea transport, communications, etc.

Above all, foreign aid has been assisting the Government in the development of its integrated health and family welfare programmes throughout the country.

EXERCISES

1. Evaluate the role of foreign capital in the economic development in India since 1951.
2. To what extent the dependence on foreign capital is justified in the Indian context?

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