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INTERNATIONAL ECONOMICS

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203EC21: INTERNATIONAL ECONOMICS

Module I: THEORY OF INTERNATIONAL TRADE

Meaning and Importance of International Trade – Silent Features of International Trade – The pure theory of International Trade – Theories of Absolute Advantage, Comparative Advantage and Relatively Costs, Hecksher – Ohlin Theory of International Trade.

Module 2: MEASUREMENT OF GAINS

Measurement of Gains from Trade and Distribution – Concepts of Terms of Trade, their uses and limitations – Hypothesis of Secular Deterioration of Terms of Trade.

Module 3: THEORY OF INTERVENTIONS

The Theory of Interventions – Tariffs, Quotas and Non-tariff barriers – Economic Effects of Tariffs and Quotas on National Income, Output and Employment.

Module 4: BALANCE OF PAYMENTS

Meaning and Components of Balance of Payments – Equilibrium and disequilibrium in Balance of Payments – The process of adjustment of balance of payments. Relative merits and demerits of fixed and flexible exchange rates.

Module 5: INTERNATIONAL FINANCIAL INSTITUTIONS

International Monetary Food (IMF) – The World Bank (IBRD) – International Finance Corporation (IFC) – International Development Association (IDA)

READING LIST

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INTERNATIONAL ECONOMICS – 203EC21

CONTENTS

Lesson : 1

THEORIES OF INTERNATIONAL TRADE
INTERNATIONAL TRADE ADVANTAGES - DRAWBACKS

1.0 AIMS AND OBJECTIVES:

After reading this lesson, you will be able to learn the following :

* What is meant by internal and international trade ?
* Distinctions between inter regional trade and international trade
* Advantages and drawbacks of International trade.

CONTENTS:

1.1 INTRODUCTION OF INTERNATIONAL TRADE:

The word 'trade' is commonly used to understand the exchange of good or mercandise among people. Basing on the exchange or dealing in goods, the trade can be explained in two types.

1. Internal or Domestic or regional trade.
2. External or foreign or international trade.

The trade that takes place within the geographical boundaries of a nation is called internal or domestic or intra-regional or home trade. Where as, on the other hand, the trade that takes place across the geographical boundaries or political frontiers is called as external or foreign or international trade. In brief, the trade with in a nation is internal trade and between the nations is international trade. Each country will produce and export those commodities which are cheaper at home and import those commodities which are cheaper in other countries. So international trade is advantageous to both the countries. Economists are in opinion that international trade standard in the medieval period. The fundamental basis of international trade is that all countries in the world cannot produce all things equally well or cheaply due to un-equal distribution of natural resources and factors of production. Hence, international trade is advantageous to every country that took place in the trade.

1.2 INTERNAL AND INTERNATIONAL TRADE:

Internal domestic trade means transactions taking place within the geographical boundaries of a nation or region. It is also called as intra-regional or home trade. On the other hand trade among different countries or trade across political frontiers is known as international. International trade, thus, refers to the exchange of goods and services between one country or region and another. It is also sometimes known as "inter-regional" or "foreign" trade. In brief, trade between one nation and rest of the world is called "international" trade. Where as, trade between one nation and rest of the world is called "international" trade, where as trade within the territory (political boundary) of a nation "internal" trade.

International trade takes place due to various reasons such as :

1. Human wants and countries' resources do not totally consider in most of the countries in the world. Hence, there is interdependence of different countries.
2. Factor endowments of different countries are different.
3. Technological advancement of different countries differ. So, some countries are better placed in one kind of production and some others superior in some other kind of production.
4. There are differences in labour and entrepreneurial skills in different countries.
5. Factors of production are highly immobile between countries.

In nutshell, international trade is the outcome of territorial division of labour and specialisation in the countries of the world.

20.0.1 IS THERE NEED FOR A SEPARATE THEORY OF INTERNATIONAL TRADE?:

There are two views namely, (i) the classical view, and (ii) Ohlin's view to this question.

(i) **THE CLASSICAL VIEW:** Classical economists believed that there was a fundamental difference between internal trade and foreign trade. They pointed out that there is free mobility of capital within a country but not between different countries. So international immobility of factors of production was the basic criterion accepted by the classical economists for the emergence of international trade. Further, different

national policies, different political units, different monetary systems, and artificial barriers like tariffs and exchange controls involved in international trade distinguish it from domestic trade. Hence, the classicists observed that the conditions. Which regulated the exchange of commodities within one such country did not apply to economic relations between different countries. Hence, a separate theory of international trade was necessary and justified.

(ii) OHLIN'S VIEW: Ohlin viewed that difference in factor endowments of nations and production in different goods require different factor proportions. So these factor endowments and different production functions of different goods are responsible for a separate theory of international trade.

20.0.2 DISTINGUISH FEATURES OF INTERNATIONAL TRADE: There are certain special features of international trade which distinguish it from internal trade. These unique features of international trade show that international trade follows different laws of behaviour from those of domestic trade. Therefore, a separate theory of international trade is essential. The unique attributes or features of international trade are :

1. IMMOBILITY OF FACTORS OF PRODUCTION: The factors of production especially labour and capital are less mobile or immobile between the nations, where as, they are more mobile within the domestic country. Immigration laws and other restrictions are obstades in the international mobility of labour. International flow of capital are also severely restricted by different countries. The principles which determine the course and nature of domestic and international trade are bound to be different, at least in some respect. Due to inter-country immobility of factors, there may be permanent difference between the cost of production of a commodity in one country and the price obtained in a different country for it. Today this argument is considered out-moded. However, it is still true that due to legal or other restrictions, inter country movement of factors is very less as compared to intra-country movements. This difference necessitate separate treatment of international trade.

2. DIFFERENT CURRENCIES: It is another main difference between domestic and international trade. Within the domestic territory of a country the transactions are carried on with single currency. So that there are no difficulties in making pavements in domestic trade. But different countries have different currencies. Therefore, a number of foreign exchange difficulties on problems arise in international trade. Sometimes the scarcity of foreign exchange limits the volume of imports from other countries. Variation in exchange rates also poses certain problems. Fluctuations in exchange rate may also lead to changes in economic policies of a country. Hence difference in currencies give rise to a unique set of problems. Therefore, a separate study of monetary aspect of international trade is needed.

3. RESTRICTIONS ON IMPORTS AND EXPORTS: There are no restrictions on the flow of trade within different regions of a country contrary to it, there are a number of restrictions on inter-country trade. In addition, exports and imports duties, quotas restrictions are also imposed by different countries on the imports of various goods from different countries.

4. **HETEROGENEOUS MARKETS:** Markets are not uniform in nature from one country to another due to differences in tastes, habits, fashions, customs, preferences, language etc., the behaviour of international buyers in each case, therefore, be different such differences may also be present in markets of various parts of the same country. Here this difference is of degree only and not of kind.

5. **DIFFERENT NATIONAL ENTITIES:** Different national entities giving rise to sovereign states also call for separate analysis of international trade. A nation is a separate unified group characterised by feelings of nationality. The socio-economic environment differ greatly from country to country, while it is more or less uniform within a country.

6. **DIFFERENT NATIONAL POLICIES AND GOVERNMENT INTERVENTION:** The policies with regard to trade, commerce, industry, taxation etc. are more or less same within a country, but differ widely in different countries. The international trade and commerce policy adopted by a country interfere with the course of normal trade between it and other countries. Thus, government intervention causes different problems in international trade while the value theory in its pure form, which assumes non-interference, cannot be applied completely in the international trade policy.

7. **BALANCE OF PAYMENTS ADJUSTMENT PROBLEMS:** One unique problem of international trade is that of attaining equilibrium in balance of payment position. The economic policies adopted by a country to correct to adverse balance of payment dis-equilibrium gives rise to a number of other problems. Should a deficit-country try to improve its balance of payments position by devaluation, deflation, or by direct measures ? These questions do not arise in case of domestic trade.

8. **DIFFERENCE IN PRODUCTION CONDITIONS:** The production conditions also differ from country to country. This can be due a number of reasons. One country can be more advanced than another in science and technology. Thus, the production cost will be lower in the former country. Besides, the production costs of the same commodity can be different in two countries due to differences in economic policies of the two countries. It is an account of differences in the cost of production that international trade takes place.

9. **DIFFERENCE IN NATURAL RESOURCES AND GEOGRAPHICAL CONDITIONS:** There are differences in the natural resources and geographical conditions of the two countries. One country can be endowed with greater and more abundant natural resources than another. Thus, on account of these differences the production cost of the same commodity can be different in two countries.

20.1 FACTORS RESPONSIBLE (BASIS) FOR INTERNATIONAL TRADE:

Whether inter-regional or international the difference in the prices of goods and services between different regions or countries is responsible for all trades. Each country will export that commodity which is relatively cheaper at home than abroad and vice-versa. The difference in the relative prices of goods between different countries is the basis of international trade. Generally,

certain goods are relatively cheaper in one country while certain other goods are relatively are cheaper in other countries. The reasons may be due to differences in either supply conditions (cost of production) or in the demand conditions in two countries. The following are some basic factors responsible for international trade.

1. **DIFFERENCES IN THE COST OF PRODUCTION:** Both classical theory of comparative cost as well as the Heckscher-Ohlim theory of international trade, the differences in the relative prices of commodities in different countries is due to differences in the cost of production. Classical felt that comparative differences in production costs differ in different countries due to 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. To classical economists, the differences in comparative costs arise mainly due to differences in skill and efficiency of labour.

   Heckscher-Ohlin theorem states that the differences in comparative costs arises due to (i) difference in factor endowments of nations and (ii) production of different goods require different factor-proportions; i.e., production functions for different goods are different. The production of those goods which require greater use of the abundant resources and lesser use of scarce resources will be relatively cheap in the country. On the contrary, the production of these commodities which need greater use of scace factors and smaller use of abundant factors will be costly or dear in the country. If the situation is such that the goods costly in are country one cheap in the other country and vice-versa trade will take place to the mutual advantage of both the countries. However, both these theories ignored demand and other factors which cause international trade.

2. **DIFFERENCES IN DEMAND:** The demand conditions may reverse the direction of foreign trade expected on the basis of cost considerations alone. Due to the influence of demand a country may import a good in spite of the fact that the country produces the product comparatively at low cost from the other country. This will happen when the consumers have a strong preference for the commodity produced at low cost. For example, country A may import X-commodity to meet the high domestic demand for X-commodity inspite of the fact that country A products X-commodity at low cost.

3. **DIFFERENCE IN TECHNOLOGY:** The differences in prices of goods in different countries may arise due to differences in technology among different countries. This technological innovation in a country helps in reducing the cost and price of goods. Other things remaining constant, as a result of technology upgradation the production possibilities curve of the country shifts upward. So that, the country may begin to export a commodity which was imported before technological innovation.

4. **PRODUCTION DIFFERENTIATION:** The classical and the Heckscher-Ohlin theories assumed that the goods traded were homogeneous products. It means these countries did not pay any attention to product differentiation factor in international trade. But the product differentiation is also an important cause of international trade. A large proportion of trade between developed countries relates

to the imports and exports of the differentiated products. For example, Italian Fiats are exported to England while U.K. Fords are exported to the Italy.

5. **ENTREPRENEURSHIP:** Both the classical and Heckscher – Ohlin theories ignored the role of entrepreneurship in trade between different nations. In the present world, the modern multi-national corporations dominate the international trade. Administrative skill and organisational ability of high order plays a vital role in the success of giant corporations. Thus, entrepreneurial and organisational ability plays a vital role in international trade.

6. **STAGE OF ECONOMIC DEVELOPMENT:** The stage of development is also affects the movement of goods between countries. Backward regions carry little trade, either among themselves with other countries. But among more advanced with high degree of development, there is a greater volume of trade. The U.K., one of the most advanced nations of the world, buys food grains, raw materials and semi-manufactured goods from other countries and exports finished goods. Development of industries, transports, agriculture, etc., helps in the expansion of trade. Thus, the volume of international trade is very much affected by the stage of development.

7. **FOREIGN INVESTMENT:** The firms and corporations of industrialized nations find it profitable to invest huge amount of money in foreign countries to obtain necessary raw materials and export their products to other countries. These foreign corporations also imports manufactured good. For example, most of the iron ore, tin, copper, lead, zinc and other minerals of South America, Africa and South-East Asia were developed by foreign investment. It is, therefore, clear that foreign investment has been an important factor for the promotion of international trade.

8. **TRADE AND FINANCIAL CONTROLS:** Different kinds of controls have affected the flow of trade between countries. A country may impose controls on its international trade to correct its adverse balance of payments position. No, protect its domestic industries against foreign competition and to get revenue through customs duties. All types of controls restrict and hinder international trade. At present, there is no country which does not exercise such controls in different degrees.

9. **OTHER FACTORS:** In addition to the above, political affiliations of countries, government policies affecting prices of goods, the existence of IMF, World Bank, the Export-Import Bank, etc. also influence international trade. The existence of innovatin gap may also greatfully influence production and trade. A country having innovative advantage can export new and technically advance products.

Thus we may say that all those factors which affect and may affect the demand and supply condition in different countries also affect the international trade. The difference in the relative prices of goods between different countries may be due to differences either in supply conditions or in the demand conditions in the two countries.

20.2 ADVANTAGES OF INTERNATIONAL TRADE:

Expanding global economy has emerged in the modern world owing to the growth of foreign trade of all nation. International trade of goods, services and assets serves as the most powerful linkages – interdependence among the various national economics. Today, countries all over the world are becoming more closer and coordinated which has complex network of growing economic interdependence as well as cordial political and social relations developed under the expanding global trade in a liberalised environment.

(1) OPTIMUM ALLOCATIONS OF WORLD RESOURCES: International specialisation and geographical division of labour leads to the optimum allocation of world's resources, making it possible to make the most efficient use of them.

(2) GAINS OF SPECIALISATION: Each trading country gains when the total output increases as a result of division of labour and specialisation. These gains are in the form of more aggregate production. Larger number of varieties and greater diversity of qualities of goods that become available for consumption in each country as a result of international trade.

(3) ENHANCED WEALTH: Increase in the exchangeable value of possessions, means of enjoyment and wealth of each trading country.

(4) LARGER OUTPUT: Enlargement of world's aggregate output.

(5) WELFARE CONTOUR: Increase in the world's prosperity and economic welfare of each trading nation.

(6) CULTURAL VALUES: Cultural exchange and ties among different countries develop when they enter into mutual trading.

(7) BETTER INTERNATIONAL POLITICS: International trade relations help in harmonising international political relations.

(8) DEALING WITH SCARCITY: A country can easily solve its problem of scarcity of raw materials of food through imports.

(9) ADVANTAGEOUS COMPETITION: Competition from foreign goods in the domestic market tends to induce home products to become more efficient to improve and maintain the quality of their products.

(10) LARGER SIZE OF MARKET: Because of foreign trade, when a country's size of market expands, domestic producers can operate on a larger scale of production which results in further economics and thus can promote development. Synchronised application of investment to many industries simultaneously become possible. This helps industrialisation of the country along with balanced growth.

After that, and further : Above all, foreign trade is regarded as a engine growth. Export-led growth strategies of development adopted by many developing countries – especially in the Far East region : Singapore, Malaysia, Thailand, Indonesia etc. have achieved miraculous economic advancement in recent years.

20.3 DRAWBACKS OF INTERNATIONAL TRADE:

When a country places undue reliance on foreign trade, there is a likelihood of the following disadvantages:

1. **EXHAUSTION OF RESOURCES:** When a country has larger and continuous exports, her essential raw materials, and minerals may get exhausted, unless new resources are tapped or developed (e.g., the near exhausting oil resources of the oil-producing countries).
2. **BLOW TO INFANT INDUSTRY:** Foreign competition may adversely affect new and developing infant industries at home.
3. **DUMPING:** Dumping Techniques such as used by advanced countries may hinders the development of poor countries.
4. **DIVERSIFICATION OF SAVINGS:** A high propensity to import may cause reduction in the domestic savings of a country. This may adversely affect her rate of capital formation and the process of growth.
5. **DECLINING DOMESTIC EMPLOYMENT:** Job opportunities available to people are curtailed, when a country tends to specialise in a few products.
6. **OVER INTERDEPENDENCE:** Foreign trade discourage self-sufficiency and self-reliance in an economy. When countries tend to be interdependent, their economic independence is jeopardized.

Due to these reasons, there is no free trade in the world. Each country puts some restrictions on its foreign trade under its commercial and political policies.

20.4 SUMMARY:

The trade that takes place within the boundaries of a country is internal trade and across the boundaries is international trade. There are certain similarities and differences in between these two trades i.e., internal and international trade. Due to the differences, a need of separate analysis or separate theory of international trade has arised. Though the countries which participates in international trade will benefit in so many ways. However, there are certain drawbacks also.

20.5 POINTS TO BE REMEMBERED:

1. The trade that takes place within the boundaries of a country is internal trade and across the boundaries of a country is international trade.
2. The features of international trade is different hence there is a need of special analysis for international trade.
3. Natural advantages, demand conditions, techniques of productions, price levels, Government interference in economic affairs etc are responsible for international trade.
4. There are several economic gains from international trade. However, undue dependence may lead to several drawbacks.

20.6 GLOSSARY:

1. **Internal Trade** : Trade that takes place with in the boundaries of a country.
2. **International Trade** : Trade that takes place across the boundaries of a country.
3. **Comparative Advantage** : The special ability of a country to provide a particular commodity and services relatively at lower cost.

20.7 MODEL QUESTIONS:

I. ESSAY TYPE QUESTIONS:

1. Distinguish between internal and international trade? What are the reasons for international trade.
2. Is there need for a separate theory of international trade – Discuss.

II. SHORT QUESTIONS:

3. Distinctions between domestic and foreign trade.
4. What are the advantages from international trade ?
5. What are the drawbacks from international trade.

20.8 SUGGESTED READINGS:

1. B.O. Soderston : International Economics
2. David Young : International Economics
3. Stephen Eric : International Economics
4. Varma and Agarwal : Macro Economics

Lesson : 2

THEORIES OF INTERNATIONAL TRADE TERMS OF TRADE

2 AIMS AND OBJECTIVES:

After completing the lesson, you will be able to understand the following :

* Distinction between absolute cost advantage and comparative cost advantage.
* Classical Theory of International Trade
* Modern Theory of International Trade
* Terms of Trade-Different Kinds of Measurements
* Factors Affecting terms of Trade
* Shortcomings involved in measuring terms of Trade.

CONTENTS:

2.1 INTRODUCTION:

Every country in the world exports certain commodities and imports certain commodities. A country generally exports those commodities in which she has advantage in production and imports those which have dis-advantage. The two important theories that explains the international trade are classical theory of international trade and modern theory of international trade.

The terms of trade refers to the rate at which a country exchanges it's exports for imports. Various kinds of terms of trade, factors affecting terms of trade, difficulties in calculating terms of trade etc. are discussed in this lesson.

2.1.1 THE CLASSICAL THEORY OF INTERNATIONAL TRADE:

The classical theory of international trade also called as the Theory of Comparative Costs. This theory is an application of the principle of division of labour to the production of goods by different countries. The classical theory states that international trade develops with geographical (country wise) specialization in the production of various goods which is reflected through the differences in their comparative costs of production between any two countries.

The seeds of this theory are found in the writings of Adam Smith. He explained this principle as the law absolute cost advantage. But, the credit goes to Ricardo in formulating an explicit and precise theory in terms of the "comparative cost doctrine". Afterwards, the doctrine of comparative costs has gone through many improvements and refinements at the hands of eminent economists like J.S. Mill, Cairnes and Bastable. In modern times, it has been recast by Taussig and Haberler also.

a) **Adam Smith - The Law of Absolute Cost Advantage:** Adam Smith developed this theory of international trade in support of free trade by stressing the advantages of division of labour. Since division of labour is very advantageous in production, he supported free international trade is desirable because it promotes international division of labour, so that each country to specialize in those goods which it is best suited to produce most cheaply. He opined that free trade between countries brings about an optimum allocation of the productive resources of the world.

Adam Smith developed the law of absolute cost advantage for international trade. He states that trade occurs between two countries if one of them has an absolute advantage in producing one commodity and the other country having absolute advantage in producing some other commodity. To explain the following illustration gives clarity of the point. Suppose there are two countries A and B. For simplicity's sake, like the classical economists, we shall measure all costs in terms of labour. Then, if in country A, one unit of labour per day can produce, let us say, 25 barrels of wine or 10 bales of cloth, in B, the same amount of labour can produce 10 barrels of wine or 15 bales of cloth. The position then is as follows in Table 21.1.

Table 21.1

Production of One Unit of Labour per Day

Products	in A	in B
Wine	25 Barrels	10 Barrels
Cloth	10 Bales	15 Bales

Statistics in above table states that A has an absolute cost advantage over B in the production of wine (for 25 barrels are more than 10 barrels), while B has an absolute advantage over A in the production of cloth (for 15 bales are more than 10 bales).

Thus, country A will specialize in the production of wine in which it has an absolute cost advantage over B and country B will specialize in producing cloth in which it has an absolute advantage over A. The trade between the two countries, then, will benefit both of them. As is easy to see, with 2 units of labour, A will now produce 50 barrels of wine and B 30 bales of cloth as a result of specialization and international trade. In the absence of this, there will be only 35 barrels of wine and 25 bales of cloth produced by both the countries with their given 2 units of labour.

Though Smith's theory is clearly expressed, it is not convincing. It is based on the assumption that international trade required a producer of exports to have an absolute cost advantage; that is, an exporting industry must be able to produce with a given amount of capital and labour, a larger output than any rival. But then, what about the export phenomenon of a country having no such clear superiority in any line of production? This may be the case of a relatively backward country whose factors of production, as compared with those of any other developed nation, are inefficient in all lines of production. There is no absolute advantage for such a backward country and yet we find that it has international economic relations. Adam Smith's theory clearly fails to analyse this sort of situation. Hence, i.e., The doctrine of comparative costs has developed by Ricardo.

B) RICARDO - THE DOCTRINE OF COMPARATIVE COSTS: David Ricardo in his principles of Political Economy (1817) furnished a more precise formulation of the theory of international trade known as principle of comparative advantage or "doctrine of comparative costs."

This doctrine was developed by Ricardo out of his (classical) labour theory of value. According to this theory, the value of any commodity is determined by its labour costs. It asserts that goods are exchanged against one another according to the relative amounts of labour embodied in them. For the prices of goods within a country are proportional to the relative quantities of labour contained by them. Thus, the exchange ratios or prices are determined solely by relative labour costs, through their influence upon supply and demand.

The labour cost principle is, however, based on the following assumptions that:

1. Labour is the only productive factor,
2. All labour is of the same quality and characteristics.
3. Labour has perfect mobility.
4. There is perfect competition in the labour market.

Ricardo thus thought that the labour theory of value, which is completely valid for the domestic trade of a country, cannot be applied to international trade, since factors of production are immobile internationally.

Ricardo developed his Doctrine of Comparative costs. According to the theory of comparative costs, international trade takes place because different countries

have different advantages (efficiency) in the production (specialization) or different commodities. A country will specialize in the production of that commodity in which it has a greater comparative advantage or its comparative disadvantage is the least. It comparative advantage, and import the commodity in which its advantage is less or in which it has a comparative disadvantage.

RICARDO'S THEORY: Ricardo stated that, ceterus paribus, a country tends to specialise in and export those commodities in the production of which it has maximum comparative cost advantage or minimum comparative disadvantage. Similarly, the country's imports will be of goods having relatively less comparative cost advantage or greater disadvantage.

ASSUMPTION OF RICARDIAN MODEL: Ricardo constructed a two-country, two-commodity, but one-factor model basing following assumptions:

1) Labour is the only productive factor.
2) Costs of production are measured in terms of the labour units involved.
3) Labour is perfectly mobile within a country but immobile.
4) Labour is homogeneous.
5) There is unrestricted or free trade.
6) There are constant returns to scale.
7) There is full employment equilibrium.
8) There is perfect competition.
9) Transport cost element ignored.

Under these assumptions, let us assume that there are two countries A and B and two goods X and Y to be produced.

Now, to illustrate and elucidate comparative cost difference, let us take some hypothetical data and examine them as follows.

ABSOLUTE COST DIFFERENCE: As Adam Smith pointed out, if there is an absolute cost difference, a country will specialise in the production of a commodity having an absolute advantage (see Table 21.2).

Table – 21.2

Cost of Production in Labour Units

	Country A	**Country B**	**Comparative Cost Ratio**
Commodity X	10	21	10/21 = 0.5
Commodity Y	21	10	21 / 10 = 2
Domestic Exchange Ratio	1X = 1/2Y	1X = 2Y	

It follows that country A has an absolute advantage over B in the production of X while B has an absolute advantage in producing Y. As such, when trade takes place. A specialises in X and exports its surplus to B and B specialises in Y and exports its surplus to A.

EQUAL COST DIFFERENCE: Ricardo argues that if there is equal cost difference, it is not advantageous for trade and specialisation for any country in consideration.

Table 21.3

Cost of Production in Labour Units

	Country A	Country B	Comparative Cost Ratio
Commodity X	10	15	10 / 15 = 0.66
Commodity Y	21	30	21 / 10 = 0.66
Domestic Exchange Ratio	1X = ½ Y	1X = ½Y	

On account of equal cost difference, the comparative cost ratio is the same for both countries, so there is no reason for undertaking specialisation. Hence, the trade between these two countries will not take place.

Comparative Cost Difference: Ricardo emphasised that under all conditions, it is the comparative cost advantage which lies at the root of specialisation and trade (see Table 21.4).

Table 21.4

Cost of Production in Labour Units

	Country A	Country B	Comparative Cost Ratio
Commodity X	10	15	10 / 15 = 0.66
Commodity Y	21	25	21 / 25 = 0.80
Domestic Exchange Ratio	1X = 0.5Y	1X = 0.6Y	

It will be seen that country A has an absolute cost advantage in both the commodities X and Y. However, A possesses a comparative cost advantage in producing X. For, comparatively, country A's labour cost involved in producing 1 unit of X is only 66 per cent of B's labour cost involved in producing X, as against that of 80 per cent in the case of Y.

On the other hand, country B has least comparative disadvantage in production of Y, though she has absolute cost disadvantage in both X and Y.

It should be noted that, to know the comparative advantage, we have to compare the ratio of the costs of production of one commodity in both countries

(i.e., 10/15 in the case of X in out example) with the ratio of the cost of producing the other commodity in both countries (i.e., 21/25 in the case of Y in our example). To state algebraic terms:

If in country A, the labour cost of commodity X is Xa and that of Y is Ya, and in B, is Xb and Yb respectively, then absolute differences in cost can be expressed as

$$Xa/Xb < 1\ Ya/Yb$$

(which means that country A has an absolute advantage over country B in commodity X and country B has over A in commodity Y). And, comparative differences in costs are expressed as

$$Xa/Xb < Ya/Yb < 1$$

(which implies that A possess an absolute advantage over country B in both X and Y, but it has more comparative advantage in X than Y). If, however, there is an equal cost difference, i.e., Xa/Xb = Ya/Yb, there will be no international trade between the two countries.

In our illustration, since country A has comparative cost advantage in commodity X, as per Ricardo's theorem, this country should tend to specialise in X and export its surplus to country B in exchange for Y (i.e., import of Y from B). Correspondingly, since country B has least cost disadvantage in producing Y, she should specialise in Y and export its surplus to A and import X.

GAIN ATTRIBUTES OF INTERNATIONAL TRADE: It further follows that when countries A and B enter into trade, both will gain. In the absence of trade, domestically in country A, 1X = 0.5Y. Now, if after trade, assuming the terms of trade to be 1X = 1Y, country A gains 0.5 unit more. Similarly, in country B, 1X = 0.6Y domestically, after trade, its gain is 0.4Y.

In short, "each country can consume more by trading than in isolation with a given amount of resources." Indeed, the relative gains of the two countries will be conditioned by the terms of trade and one is likely to gain proportionately more than the other but it is definite that both will gain.

In fact, the principle of comparative costs shows that it is possible for both the countries to gain from trade, even if one of them is more efficient than the other in all lines of production. The theory implies that comparative costs are different in different countries because the abundance of factors which may be necessary for the production of each commodity does not bear the same relation to the demand for each commodity in different countries. Thus, specialisation based on comparative cost advantage clearly represents a gain to the trading countries in so far as it enables more of each variety of goods to be produced cheaply by utilising the abundant factors fully in the country concerned and to obtain relatively cheaper goods through mutual international exchange.

5

It is obvious that the comparative costs doctrine is simply an extension of the principle of the division of labour. It advocates geographical specialization through

country-wise (territorial) division of labour, or localization of industries. However, it constitutes a real improvement over Adam Smith's law of absolute advantage as the basis of international trade. It is more general and seeks to cover situations having no absolute advantages. It includes in it also Adam Smith's formulation of a country having absolute and comparative advantages together as a special case of study. Further, the comparative costs principle also tried to give a more convincing and adequate proof of the gains of international trade.

MONEY COST APPROACHED TO COMPARATIVE ADVANTAGE: As we have seen, the Ricardian doctrine of comparative costs of production was explained in terms of labour cost of production. However, the modern economy is a money economy, and in actual transactions money cost is the determining factor. International trade is therefore, determined by absolute differences in money prices rather than comparative differences in labour cost. But, as Prof. Taussig said, we can easily translate comparative differences in labour cost of commodities into absolute differences in prices without affecting the real exchange relations between commodities. For this, let us take the following illustration:

SUPPOSE, IN COUNTRY A:

1 day's labour produces 21 units of wine, and

1 day's labour produces 21 units of cloth, while in country B :

1 day's labour produces 10 units of wine, and

1 day's labour produces 15 units of cloth.

Thus, country A has an absolute superiority in producing both the commodities but it has a comparative advance in wine. Hence, country A will specialise in wine. Country B has comparative advantage in cloth, so it will specialise in cloth.

In order to convert labour costs into money costs let us take daily wages into account, which we may assume to be Rs. 100 in country A and Rs. 80 in country B. Thus,

Table 1.5

Money Cost of Commodities

Country	Product of	Daily wage = Money Cost per Day's Labour Rs.	Money cost = Supply Price per Unit of Output (Rs.)
A	21 Units of wine	100	5.00
	21 Units of cloth	100	5.00
B	10 Units of Wine	80	8.00
	15 Units of Cloth	80	5.33

It is easy to see that the money cost (or price) of producing wine is lower in country A as compared to that in B (in a it is Rs. 5 per unit, while in B it is Rs. 8 per unit). In view of the Ricardian comparative costs theory, whether we compare money costs or labour costs, it may be implied, thus, that, country A will specialise in the production of wine and export it to B. On the other hand, B has a relatively less disadvantage in money cost of producing cloth. Hence, B will specialise in the production of cloth and export it to A.

It may be criticised that the above result is obtained because we have arbitrarily chosen the wage rates. But the objection holds no water a sunder our assumption, there will always be an upper and lower limit within which the ratio of money wages between the two countries must lie. It is only the choice of one or other of the ratios within these limits which is arbitrary. But these limits to the wage rate differences are not arbitrarily chosen. They are fixed by the comparative efficiency of labour in each country.

When we assume that the daily wage in country B is Rs. 80, then the daily wage in A cannot exceed Rs. 160 (i.e., it cannot be more than double B's wage). This upper limit is fixed by the cost advantage of A in wine (21 to 10). A's superiority over B in producing wine is two times. Therefore, if the wage rate in B is Rs. 80 A's wage rate cannot be twice as high as in B, i.e., wage rate in A cannot exceed Rs. 160 (= 2 x Rs. 80). Hence, if A's wage rate rises to Rs. 160, its price per unit of both wine and cloth would be Rs. 8. Then, its export of wine will be unprofitable. However, it will continue to import cloth from B (for it cheaper than the domestic price). As a result, A's balance of payments for cloth will increase and cause outflow of gold. This flow of gold will raise prices and wages in B and lower the same in A. Eventually, the direction of trade will be the same as before and comparative costs advantage will reassert itself but with a narrow range of trade and gain from trade than before.

Similarly, we can find that the daily wage in A cannot be lower than Rs. 60 (i.e., it cannot be less than ¾ of B's wage rate). For, this lower limit is fixed by the cost advantage of A in cloth (21 to 15). If wages fall to Rs. 60 in A, there will be again one-sided trade. Now A would be exporting wine without any reciprocal import of cloth. There will be an outflow of gold from B to A. Thus, prices and wages will rise in A and fall in B, till a new position of comparative advantage is reached.

We, however, cannot say from the cost data alone where exactly within these limits the ratio of wages in two countries and therefore the international terms of trade for the two commodities will settle. At the most it may be stated that : wages must be higher in the country of superior efficiency (enjoying comparative advantage) by somewhat more than the ratio of least cost advantage, but it should be some what lower than the ratio of greatest cost advantage to avoid one-sided trade phenomenon. The Ricardian theory of comparative costs thus left us halfway. Later on; it is J.S. Mill who made an important addition to this theory by introducing the principle of 'the equation of reciprocal demand'. He pointed out that the exact ratio of wages and terms of trade is determined by the conditions of demand, by the fact that the total value of each country's exports must equal the total value of its imports.

A CRITICAL EVALUATION OF COMPARATIVE COSTS DOCTRINE: Perhaps the most celebrated doctrine of the classical economics is the theory of comparative costs. Ricardo's doctrine of comparative advantage furnishes a logical explanation of the pattern of trade.

1. The Theory is Stated in Real Terms and in terms of the Labour cost.
2. The Ricardian Theory of Comparative Costs Based on the Labour Theory of Value which itself is Unrealistic.
3. The Ricardian Theory Wrongly Assumes Labour as a Homogeneous Factor.
4. The Theory is Based on Constant Returns to Scale.
5. It is Based on the Unrealistic Assumption of Full Employment Condition of Equilibrium. Keynes who falsified the celebrated assumption of full employment of classical economists as unrealistic. To that extent, the comparative cost theory is obviously unrealistic.
6. The Ricardian Theory of Comparative Costs Ignores Transport Cost Differences.
7. The Ricardian model is restrictive in operation as it relates to two commodities and two countries only. In actual practice, international trade is among many countries with many commodities. A scientific rational theory should not have such limitations.
8. It is only a Supply-side Theory.
9. An important factor in international trade, ignored by the Ricardian model, is that actual imports and exports are greatly influenced by tariffs and a variety of other trade restrictions. Thus, as a champion of free trade, Ricardo moved away from reality.
10. The theory is Based on Unrealistic Assumptions of Perfect Mobility. Ohlin rejects the classical assumption of the immobility of factors of production between countries as the basis of international trade. For him, immobility of factors is not a special feature of international trade, it is also prevalent within the different regions of the same country.
11. Professor Bertil Ohlin objects to the theory of comparative costs as an explanation of international trade, for, in his view, the comparative cost principle was applicable to all trade and that international trade was no exception to it. He thus regards the classical doctrine of comparative costs as a clumsy and dangerous tool of analysis. It is also unrealistic as it considers only a two-country, two-commodity phenomenon based on the labour theory of value. Hence, Ohlin propounded a new theory of international trade based on the general theory of value.

21.1 MODERN THEORY OF INTERNATIONAL TRADE:

Bertin Ohlin in his book "Interregional and International Trade" (1933) criticised the classical theory of international trade and formulated the *General Equilibrium Theory of International Trade. It is also called as the Modern Theory of International Trade* or the Hecksher-Ohlin Theorem. In fact, it was Eli Hecksher, Ohlin's teacher, first propounded the idea and Ohlin formulated build the modern theory of international trade.

STATEMENT OF THE THEORY:

Ohlin, international trade "as a special case of inter-local or inter regional trade". Therefore, international values are determined in the same way as the prices of commodities are determined in international trade. The basis of determination of prices in internal trade is the general equilibrium of demand and supply which is also applicable to international trade.

According to Ohlin, the main determinant of pattern of production, specialisation and trade among regions is the relative availability of factor supplies. Regions or countries have different factor endowments and factor supplies. "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". 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.

The following are the assumptions of Heckscher – Ohlin Theorem.

ASSUMPTIONS OF THE THEORY:

(1) It is a 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 function of the two commodities have different factor intensities, i.e., labour-intensive and capital-intensitive.

(6) The production functions are different for different commodities, but are the same for each good 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 technique used to produce commodity Y in both countries is the same.

(7) There is perfect mobility of factors within each region but internationally they are immobile.

(8) There are no transport costs.

(9) There is free trade between the two countries.

(10) There are constant returns to scale in the production of each commodity in each region.

(11) Preferences of consumers and their demand patterns are identical in both countries.

(12) There is no change in technological knowledge.

THE OHLIN THEOREM:

Basing these assumptions, Ohlin contends that the immediate cause of international trade is the difference in relative commodity prices caused by differences in relative demand and supply of factors (factor prices) as a result of differences in factor endowments between two countries. Fundamentally the relative scarcity of factors – the short-age 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.

Ohlin elucidates his theory of factor proportions by giving an illustration of trade between England and Australia. In Australia, land is an abundance but labour and capital are relatively scarce. Thus land is cheap and other factors are relatively expensive. Therefore, commodities requiring relatively more land but less capital and labour can be produced cheap in Australia, such as wheat, wool, mutton, etc. on the contrary, capital is relatively abundant and cheap in England, while land is scarce and dear. Thus commodities which require more capital, such as manufacturers, can be produced cheap in England. Australia will therefore specialise in the production of wheat, wool, mutton, etc.., and export them to England and import manufacturers in which England will specialise. International trade emerges in this way, according to Ohlin.

Factor Abudance in terms of Factor Prices. Ohlin explains richness in factor endowment in terms of factor prices. According to his 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 subcripts 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 cheap in country B, the country is abundant in labour. Thus country A will export the capital-intensive good and country B will export the labour-intensive good. This is illustrated in Figure.

Let X be the capital-intensive commodity and Y the labour intensive commodity. XX and YY are the two isoquants which characterise their production functions and are the same in both countries. Relative factor prices in country A are given by the line PQ. Assuming that the isoquants represent 1 unit of the respective commodity, then 1 unit of commodity X will be produced with OC of capital and OL of labour. But capital and labour can be exchanged for each other in a ratio shown by the factor-price line PQ. Taking PQ as a budget line or a cost line of country A, the total cost of producing 1 unit of X in country A is OP measured in capital or OQ measured in labour. By the same reasoning, we find that the total cost of producing 1 unit of commodity Y in country A is the same as that for producing 1 unit of X, i.e, OP measured in capital or OQ measured in labour. Therefore, OL of labour is equal to CP of capital, and OC of capital is equal to LQ of labour.

To find out the cost of producing 1 unit of each commodity in country B in which capital is relatively dear than in country A, we take a less steep slope of the line representing the ratio of factor prices in country B than in country A. Such a factor-price line is ST for country B which is less steep than the line PQ. This line ST is tangent to the isoquant XX at G. A factor-price line drawn parallel to this is KR which is tangent to the isoqant YY at H. From this it follows that the cost producing 1 unit of commodity X in country B is OS measured in capital, while it is OK measured in capital for 1 unit of commodity Y. Thus it costs more to produce a unit of commodity X than to produce the same amount of Y in country B, as OS>OK. The obvious conclusion is that country A will produce the relatively cheap commodity X and export it to B, while country B will produce the relatively cheap commodity Y and export it to A. This establishes the Ohlin theorem that the capital abundant country will export the capital-intensive commodity, and the labour-abundant country will export the labour-intensive commodity.

Factor Abundance in physical Terms – Another way to explain the Ohlin theorem is in physical terms of factor abundance. 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 the total amounts of capital and labour respectively in country B. This is explained in Figure.

In Figure, the production possibility curve of country A is AA_1 and that of country B is BB_1. The slopes of these curves show that commodity Y is 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. Country A will be producing at point E on its production possibility curve AA_1, and country B at point F on its production possibility curve BB_1. If both produce at their respective points, country A will produce commodity Y which is cheaper in it than in country B. Country B will produce commodity X which is cheaper there than in country A. This is clear from the fact that the slope of country A's production possibility curve at E is steeper and that of country B's production possibility curve at F is flatter. This is proved by the slope of the price line ST of country A which is steeper than the price line KR of country B which is flatter. Thus the capital-abundant country A has a bias in favour of capital-intensive commodity Y from the production side, and the labour-abundant country B has a bias in favour of producing the labour-intensive commodity X.

ITS SUPERIORITY OVER THE CLASSICAL THEORY:

Ohlin's theory is an improvement over the classical theory of international trade in many respects.

(1) Ohlin's 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) Ohlin's analysis which is cast within the framework of the realistic general equilibrium theory of value frees the classical theory from the defunct and unrealistic labour theory of value.

(3) The Ohlin model takes two factors-labour and capital – as against the one-factor (labour) classical model, and is thus superior to the latter.

(4) Again, the Ohlin 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 latter theory takes no notice of it.

(5) The Ohlin model is more 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) Ohlin's 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) Another merit of the Ohlin model is that it 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) According to Samulson, the Ricardian theory could not explain the causes of differences in comparative advantage. The merit of Ohlin's theory lies in explaining the same satisfactorily.

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

(10) According to Haberler, Ohlin's theory is a location theory which highlights the importance of 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.

ITS CRITICISM: 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. However, he could not free himself from the unrealistic assumptions of perfect competition and full employment.

(2) STATIC THEORY: Like the classical theory, the Ohlin model is static 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 moment, 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 homogeneous factors in the two countries which can be measured for calculating factor endowment ratios. But in reality, no two factors are homogeneous 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 the 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 power-looms requiring a small number of workers. In such a situation, trade may not follow the Ohlin pattern.

(5) 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-intesive commodity because the high demand for capital will raise the price of capital relative to labour. Professor Leontief's 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.

(6) Professor 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.

(7) Wijanholds 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.

(8) 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 generalisations concerning the composition of trade are possible".

Despite the 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.

21.2 THE TERMS OF TRADE:

The rate at which the goods of one country exchange for the goods of another country is called terms of trade. 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 import 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 import prices rise relatively to its export prices, its terms of trade are said to have worsened. The country's gain from trade is reduced because it can have a smaller quantity of imports in exchange for a given quantity of exports than before.

Jacob Viner and G.M. Meier have discussed different types of terms of trade which we take up one by one.

1. **COMMODITY TERMS OF TRADE:** The commodity or net barter terms of trade is the ratio between the prices of a country's export goods and import goods.

Symbolically, it can be expressed as $T_c = \frac{Px}{Pm}$, where Tc 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

$$Tc = \frac{Px_1}{Px_0} \Big/ \frac{Pm_1}{Pm_0}$$

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 :

$$Tc = \frac{90}{100} \Big/ \frac{110}{100} = 81.82$$

It implies that India's terms of trade declined by about 18 per cent in 1981 as compared with 1971, thereby showing the worsening of its terms of trade.

If the index of export prices had risent to 180 and that of import prices to 150, then the terms of trade would be 121. this implies an improvement in the terms of trade by 21 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 officer 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. 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 or composition in the quality of the 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 changes in the quality of goods that are taking place in the world, as also new goods that are constantly entering in international trade.

2. As a corollary to the above, since the index of the commodity terms of trade does not take into account changes in the quality and composition of goods exported and imported, it cannot study long period changes in the terms of trade. Hence this concept is useful only in short periods.

3. 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 of 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 fail to take into account a country's capacity to import.

4. The commodity terms of trade also ignore 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. This 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 of 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.

Last but not least, 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 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 diseuilibrium in the balance of payments, the commodity terms of trade is not helpful in measuring the gains from trade.

To overcome this last difficulty, Taussig 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.

To measure changes in the gross barter terms of trade over a period, the index numbers of the quantities of imports and exports in the base period and the end period are related to each other. The formula for this is

$$T_g = \frac{Qm_1}{Qm_0} \Big/ \frac{Qx_1}{Qx_0}$$

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 121 in 1981, then the gross barter terms of trade had changed as follows

$$Tg = \frac{160}{100} \Big/ \frac{11}{100} = 133.33$$

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 quanitty import index had risen by 130 and that of quantity exports by 180, then the gross barter terms of trade would be 72.22. This implies deterioration in the terms of trade by 18 per cent in 1981 over 1971.

ITS CRITICISM: The concept of gross barter terms of trade has been criticised for lumping together unilateral transfers as one category in the index numbers of the quantities of exports and imports. It is, therefore, not possible to distinguish between the various types of unilateral transactions lumped together in the index. "Thus a transfer of goods associated with the export of capital is treated in the same way as the payment of a tribute by a defeated nation at the end of a war. In both cases the gross barter terms of trade of the country exporting the goods appear to improve, but only in the former case is the 'improvement' an indication of strength rather than of weakness".

3. **INCOME TERMS OF TRADE:** Dorrance has improved upon the concept of the net barter terms of trade by formulatign 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). 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

$$Ty = TcQx = \frac{PxQx}{Pm} \qquad \left(\square Tc = \frac{Px}{Pm} \right)$$

Where Ty is the income terms of trade, Tc the commodity terms of trade and Qx the export volume index.

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'.

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 its total value of imports i.e., PxQx = PmQm or Px. Qx/Pm = Qm. Thus PxQx/Pm determines Qm 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 (Px) rises, or (ii) the price of imports (Pm) falls, or (iii) the volume of its exports (Qx) rises. Thus the concept of the income terms of trade is of much practical value for developing countries having low capacity to import.

ITS CRITICISM : But 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 standards of its people.

Moreover, 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. That is why, the concept of the commodity terms of trade is usually used in the preference to the income terms of trade concept for measuring the gain from international trade.

4. **SINGLE FACTORIAL TERMS OF TRADE:** The concept of commodity terms of trade does not take account of productivity changes in export industries. Professor Viner has developed the concept of single factoral terms of trade which allows changes in the domestic export sector. It is calculated by multiplying the commidity terms of trade index by an index of productivity changes in domestic export industries. It can be exprresed as

$$Ts = Tc.Fx = \frac{Px.Fx}{Pm} \left(\square \; Tc = \frac{Px}{Pm} \right)$$

Where Ts is the single factoral terms for trade, Tc is the commodity terms of trade, and Fx is the productivity index of export industries.

If the productivity of a country's export industries increases, its factoral 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 factoral terms trade will show an improvement.

Its Limitations. The index is not free from certain limitations. It is difficult to obtain the necessary data to compute a productivity index. Further, the single factoral terms of trade do not take into account the potential domestic cost of production of import industries in the other country. To overcome this weakness, Viner formulated the double factoral terms of trade.

5. **DOUBLE FACTORAL TERMS OF TRADE:** The double factoral 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 factoral terms of trade can be expressed as

$$Td = Tc. \frac{Fx}{Fm} = \frac{Px}{Pm} \frac{Fx}{Fm} \qquad \left(\because Tc = \frac{Px}{Pm} \right)$$

Where Td is the double factoral 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 factoral 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.

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 our 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."

ITS CRITICISM: In practice, however, it is not possible to calculate an index of double factoral terms of trade of a country. Professor Devons made some calculations of changes in the single factoral terms of trade of England between 1948-53. But it has not been possible to construct a double factoral 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.

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.

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.

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 of 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 :

$$Tr = Ts \cdot Rx = \frac{Px}{Pm} \cdot Fx \cdot Rx \qquad \left(\because Ts = \frac{Px}{Pm} \cdot Fx \right)$$

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.

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 satisfaction yielded by imports, and the domestic products foregone as the result of export production." In otherwords, 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 $u = \frac{Um_1}{Ua_1} \Big/ \frac{Um_0}{Ua_0}$, 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 :

$$Tu = Tr \cdot u = \frac{Px}{Pm} \cdot Fx \cdot Rx \cdot u$$

Since the real terms of trade index and utility terms of trade index involve the measuremnt of disutility in terms of pain, risk someness and sacrifice, they are elussive concpets. As a matter of fact, it is not possible to measure disutility (or utility) in concrete terms.

Hence like the single and double factoral 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.

21.3 FACTORS AFFECTING TERMS OF TRADE:

1. **RECIPROCAL DEMAND:** 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.

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.

3. **CHANGE IN TECHNOLOGY:** Technological changes also affect the terms of trade of a country.

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 liner would increase its demand and hence the terms of trade would deteriorate for England.

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.

6. **TARIFF:** An import tariff improves the terms of trade of the imposing country.

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 an other country.

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 terms 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 prices of imports and fall in prices of exports in foreign currency, and hence deteriorate the commodity terms of trade. But Prof. Hirch suggests that the right procedure should be to tudy price movements in exports and imports in the same currency in order to assess the true effects of devaluation. Both export and import 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 inelstic to price movements, devaluation leads to an improvement in the commodity terms of trade.

21.4 DIFFICULTIES IN ESTIMATING TERMS OF TRADE:

The concepts terms of trade have immense use in international trade. Basing on these concepts, we can estimate how a country benefits from international trade. However, there are certain difficulties in estimating terms of trade.

1. Selecting of base period is the main difficulty to calculate the terms of trade. If the base period in too short or too long to current period, it may not comparable.
2. The commodity terms of trade explains the changes in quantity and prices of imports and exports but it do not take into account the changes in the quality of goods.
3. There is time lags between exports and imports of a country. So it is very difficult to formulate the terms of trade by taking these time lags into consideration.
4. Theoretically, utility terms of trade is very useful but in practice there are so many short comings. It is not possible to measure real costs, sacrifice, utility and dis-utility etc in concrete terms.

21.5 SUMMARY:

The theories of international trade explain the basis of trade. The classical theory of international trade explains that absolute differences in costs and comparative differences incosts and comparative differences incosts are responsible for international trade. heckscher-Ohlin theory states that differences in relative factor supply only indicate that some commodities will be relatively cheaper in one country than others. However, these theories are criticized in many respects.

The rate at which a country exchanges exports for imports is called as terms of trade.

The concept terms of trade are useful to estimate the benefits from international trade. However, each concept has its own shortenings.

21.6 IMPORTANT POINTS TO BE REMEMBERED:

1. Recordian comparative cost advantage theory can be called as classical theory of international trade.
2. Adam Smith developed the theory of international trade on absolute difference in costs.
3. Ricardo explains that international trade takes place basing on comparative cost differences.
4. Heckscher-Ohlin theory can be called as modern theory of international trade.
5. The Heckscher-Ohlin Theorem states that countries which are rich in labour will export labour intense goods and countries which have plenty of capital will export capital intensive products.

2.7 GLOSSARY:

1. Absolute cost Advantage producing a commodity most cheaply.
2. Comparative cost Advantage : Producing a commodity which has a maximum comparative cost advantage or minimum comparative disadvantage.
3. Receprocal Demand
4. Offer Curves : The offer curves of a country denotes the amount of a commodity X, it is willing to offer for a given amount of some other commodity Y.
5. Devaluation : It is a means of correcting a balance of payments deficit generally as a measure of last resort.

2.8 MODEL QUESTIONS:

I. ESSAY TYPE QUESTIONS:

1. Explain the Ricardo comparitive cost theory.
2. Critically examine the Hecksher Ohlin Theorem.
3. What is meant by terms of trade ? Examine the various concepts of terms of trade.
4. Mention various concepts of terms of trade ? What are the factors affecting the terms of trade?

II. SHORT ESSAY QUESTIONS

5. Examine the Adam Smith's absolute last advantage theory.
6. What is meant by terms of trade? What are the problems involved in measuring terms of trade?

III. SHORT QUESTION:

7. Comparative cost advantage.
8. Assumptions of classical theory of international trade.
9. Assumptions of Hecksher Ohlin Theory.
10. Difference between Gross Barter and Net Barter Terms of Trade.
11. Utility Terms of Trade.

2.9 SUGGESTED READINGS:

1. Soderston B.O. : International Economics
2. Enke & Salera : International Economics
3. David Young : International Economics
4. Mithani D.M. : International Economics

LESSON - 3

MEASUREMENT OF GAINS FROM TRADE

5.0. Objectives of the Lesson:

The important objectives of this lesson are:

1. To examine the meaning of gains from trade
2. To analyze the static gains from trade
3. To explain the dynamic gains from trade
4. To elucidate the aspects of measurement of gains from trade

5.1. Introduction

Trade is an act of exchanging goods and services among individuals, firms and nations, if takes place among the residents of the same country, it is known as domestic or mal trade. If it takes place between the residents of one country and those of other countries, it is known as international or foreign trade. There are certain important gains trade whether national or international. All residents or all countries cannot produce the goods and services due to several reasons including non-availability of natural and human resources. Even if they are able to produce all the goods, the cost of production ie domestic economy may be very high when compared to the foreign country'. Adam Smith said, if a foreign country is able to supply the good at a lower price than the domestic country, then it is better to buy it by giving some amount of the commodity of the domestic country in which it has some advantage. This will enable the domestic country to reduce the cost of production. Thus, there are advantages or gains from international trade. In this lesson, let us examine the nature of these gains, how they are measured.

The problem of the gains from trade verses the gains from growth reveals that when a country specializes according to its comparative advantage and trade at the international exchange ratio, it gains an increase in real income. This gain is expected turn to move to an outward shift in the country's production frontier, even if the economy operates under the constraints of fixed amounts of resources and unchanged

techniques of production. By increasing its income, the country would also increase the domestic resources potentially available for capital formation. But there still remains the question of whether some other pattern of resource allocation different from that governed by comparative advantage, might not lead to an even greater outward shift in the production frontier over time. There may be domestic misallocation of resources from the stand point of maximizing output over time Even though there is optimal allocation from the stand point of achieving the gains from trade in each single period.

Such a possible conflict between the gains from trade and the gains from growth was not envisaged in traditional trade theory. Although the dynamic aspects of trade were not central in classical and neoclassical thought there was nonetheless some recognition particularly in classical theory, of the dynamic and growth transmitting aspect of trade above and beyond the static gains from international specialization. In this interpretation the gains from trade were entirely consistent with the gains from growth and the gains from growth expected to increase with the extension of foreign trade. Against this background this lesson describes the concepts relating to gains from trade and their measurement. Main focus will be given on measurement of gains from international trade and its related issues.

From the above description it is clear that we can classify the gains from foreign trade into static and dynamic gains. Broadly we can state that the static gains are those which accrue from international specialization and according to the doctrine of comparative advantage. The dynamic gains are those which result from the impact of trade on production possibilities at large. Economies of scale, international investment and transmission of technical knowledge would be the examples of dynamic gains. In addition, trade can provide a vent for surplus commodities which brings otherwise unemployed resources into the employment and also countries can purchase goods from abroad for which there are no domestic substitutes or importation of these goods would improve the productive power of economy.

5.2. Static Gains from International Trade

In this case each country gains from trade when the total output of goods increases as result of the extension of division of labour and specialization or based on the law of comparative advantage. Comparative advantage is a cost concept measured by the marginal rate of transformation between one commodity and another as given by the scope of production possibility curve. Given perfect competition, the domestic price ratio between two commodities will equal their marginal rate of transformation. If these were not so it would pay producers to switch from one commodity to another to take advantage of the relatively favorable price ratio.

The classical economists maintain that as a result of international division of labour, world production and welfare would tend to improve. Specialization on the basis of comparative advantage implies maximum to be produced from a given amount of factor resources The increase in the welfare that trade permit results from the opportunity to obtain the foreign products more cheaply in terms of real resources scarified, than the alternative of domestic production.

Under the static gains from trade, although as result of trade the producers in the country move along the production frontier, however, itself remains unchanged. Hence/the production possibility curve of the country is assumed as given. As a result of trade, only the consumption frontier expands because the consumers are unable to reach as a higher community indifference curve. Consequently consumers enjoy a higher aggregate satisfaction which becomes possible partly due to the more favorable terms of trade on which goods are exchanged partly due to the more efficient use of the given productive resources of the economy

5.3. Measurement of Static Gains

5.3.1. Viner's Version

Jacob Viner has developed three different methods of measuring the national gains from international trade. They are: The economy in the cost of obtaining a given

real income measured with the help of comparative cost principle. Increase in the national income of the country and improvement in the terms of trade as an index of the international distribution and trend of gains from trade. The first two methods are identical when referred to a point of time. These two methods require a lot of necessary information which is not easy to collect and competition requires immense labour and dexterity. Consequently, instead of measuring the absolute gains from trade at any given part of time, economists content themselves with estimating the direction of the movement of that gain. For this purpose they adopt the third method measuring the gains from trade, i.e., is improvement in the terms of trade as an indicator of the gains from trade.

The terms of trade are of great economic significance to a country since they determine the gains that accrue to a country from international trade. If terms of trade move in countries favour it will increase gains from its international trade and rise in the level of income. It will be quite the reverse in a country for which the terms of trade become adverse. Economists consider a rise in the prices of a country's exports relative to the prices of imports as a favorable to movement of terms of trade, indicating an increase in the total gain from trade. If import prices rise relatively to export prices the terms of trade will fall and indicate a decrease in total gain from trade. Although changes in the commodity terms of trade by themselves indicate the direction of movement of the gains from trade, their implications may be modified by occupying changes in the character and statistical data themselves, volume of trade and productivity. These are the offsetting elements.

5.3.2. Marshall's Version

According to Marshall the measure of net benefit from trade is the sum of the excess of the unit prices at which the country would have purchased successive quantities of leads to an exaggeration of the amount of surplus. In Viner's view Marshall’s measure gives improbable or meaningless magnitudes of the surplus.

5.3.3. Samuelsson's Version

Paul A. Samuelson analyzed on a celebrated paper " The gains from International Trade" published in 1939 explains how international trade makes a society potentially better off than it would be if restricted to autarky. Samuelson recognizes that free trade may harm some people, but the harm which free trade inflicts upon one factor of production is necessarily less than the gain it confers on the other. In other words, it is always possible that the suffering factors because of removal of subsidy or other restrictive will be compensated such that any factors are better off as a result of trade.

Samuelson concluded that "if a unanimous decision was required in order to trade be permitted, it would always be possible for those who desired trade to buy of those opposed to trade with the result that all could be better off". This follows from the fact that as a result of trade large (or equal) amounts of every commodity can be obtained with smaller (or equal) amount of every productive service.

The Samuelson theorem that trade is potentially better than no trade is established so long as we are willing to accept compensation criteria. What would happen if after trade distribution of income becomes more adverse than the autarchic distribution In the absence of actual redistribution, trade may well contribute to a worsening of the situation The theorem, of late has been generalized to show that even if it is possible for a country to influence its terms of trade, it can be made potentially better off by trade in the sense that there is a w ay of reallocating the enlarged total of goods so as to make every one better off.

The said allocation after trade is to be carried out by local lump-sum transfers so that marginal equivalencies are not disturbed. If this is done, trade can be shown to be not simply a potential boon but an actual one. But such ideal lump-sum redistribution may not be really available. The only feasible redistributions that are available cause harmful substitution and other effects if redistribution is of this type. Samuelson admits, the highest social welfare obtainable from free trade might be lower than the other

obtainable under autarky In other words, for a given country autarky cannot be optimal if ideal transfers are possible. Some trade is better than no trade in the sense of making the nation better off with a further increase in consumption possibility frontier and further increase in utility possible frontier. Hence free trade is superior to no trade for all income distributions.

5.3.4. Haberler's Version

Using Samuelson's proof given in 1939. Prof. Haberler has provided a simple geometric analysis to show how free trade increases national income and Economic Welfare.

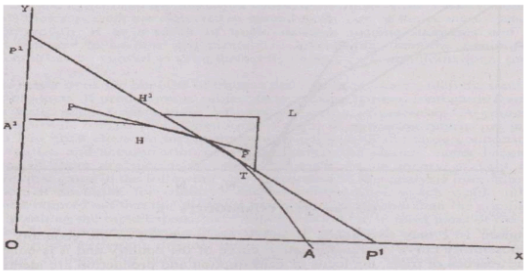

Figure -5.1: Quantity of Commodity-X

In the above figure (5.1) AA is a country's production possibility frontier. H shows the situation of production and consumption before trade. The shape of PP measures the pre- trade domestic price ratio. PP is international price ratio between two goods X and Y. Trade enables the country to reach T production point and H consumption point. At H the country exports L of X and import LT of Y. it is evident that the country is better off point H' than H. Superiority of H' over H can be shown by commodity indifference curve, it is sufficient that everyone could be better off at H^1 than H because it is implied that he utility possibility curve corresponding to free trade policy will be uniformly outside (though it may touch) the utility possibility' curve corresponding to the autarky policy.

5.3.5. Kemp's Version

Professor Murry C.Kemp has offered a more generalized and sophisticated analysis of the original Samuelson's theorem. He has extended it to shows that for countries of any size what so ever, not only is compensated free trade better than no trade but compensated restricted trade is also better than no trade, provided the restrict on is not prohibitive. Prof Kemp increases the generality of Samuelson's theorem by dropping the assumption that the country is too small to affect the terms of trade and shows that the theorem is valid for any country of any sizes. The ideas of Samuelson and Kemp can be used to offer a simple diagrammatic exposition of the gains from trade.

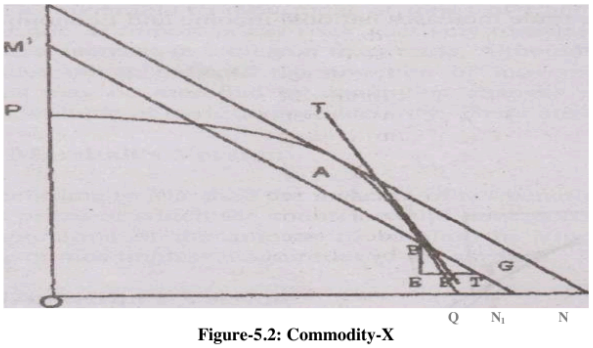

Figure-5.2: Commodity-X

In diagram 5.2 only two goods X and Y are produced in the economy, PQ is the production possibility curve or transformation curve of the country and it is concave to the origin. In the absence of trade, the locus of consumption and production are identical. Given some domestic price ratio, under autarky, the country's equilibrium production as well as the equilibrium consumption will be denoted by the same point on the production locus PQ which is country's autarky frontier.

Since frontier MN lies everywhere of autarky frontier PQ, the country can have more of both the goods. Thus if some distribution of income could bring the country autarky to point A rather than to some other point on PQ opening of trade would at that point in fact, be followed by no international transactions, and hence would represent in limiting case where trade neither benefits nor hurts the country. It is in this context that trade makes the country potentially better off. The country's new consumption possibility frontier is M^1, N^1 lies everywhere within the area bounded by MN line, the free trade frontier. Hence whatever the actual consumption point on M^1, N^1 with the free trade more volume of both goods is attained at that point. Assuring, ideal transfers which do not involve a dead weight loss of allocative efficiency, the conclusion is reached that free trade leads to a higher level of welfare than it would be achieved with restricted trade.

5.3.6. Hick's Version

According to Prof, Hicks, "The gains from trade are the difference between the value of things that are got and the value of things that are given up: Through the international division of labour one is supposed to get more than what one gives up".

5.4. Dynamic Gains from Trade

The Dynamic or indirect gains from trade arises from the advantage of specialization which accrue from the narrowness of the domestic markets. Greater division of labour will raise the productivity if its resources through the growth of specialized skills and the introduction of specialized techniques and the capital equipment in the export sector. It also' allows a country to realize the economics of scale. The gains from such specialization and economies of scale and dynamic in the sense that in contrast with static gains they represent an outward shift of the production possibility boundary in the direction of goods produced for export. But the gains from the increased productivity in the export sector and the raise in real incomes they represent are expected to spread to the rest of the economy resulting in an export lead growth. If as a result of trade, national income increases and there is a consequent increase in savings and

productive investments then the ensuing growth of national income can be viewed as yet a further dynamic gain from international trade.

The major dynamic benefits of trade is that export markets widen the total market for a country's products. If production is subject to increasing returns, total gains from trade will exceed the static gains from a more efficient allocation of resources. A country may be benefited from trade irrespective of its terms of trade, if increasing returns are in operation. Prof. Hicks laid great stress on increasing returns because of the close connection between increasing returns and accumulation of capital. Larger the market, easier becomes capital accumulation if there are increasing returns to scale. Mints theory of vent for surplus presents dynamic gains in the following way. According to this analysis international trade is the provision of an outlet for country's surplus commodities which would otherwise go unsold. Myint pointed out that this theory is much more applicable than the comparative cost doctrine in planning the rapid expansion of export production in most parts of the developing world in the 19th century because of existence of unutilized resources Vent for Surplus Theory may explain better the original basis for international trade while the comparative most doctrine explains the pattern of commodity trade. Another potential gain from international trade is that exports permit imports which may be more productive than domestic resources both directly and indirectly.

5.5. Conclusion

From the above analysis it is noticed that generally all the countries which participate in international trade are assured to derive different gains. Basically the gains from trade are classified into direct/static or indirect dynamic gains static gains are related to the benefits arise out of international specialization and division of labour and on the other hand dynamic/indirect benefits arise out of productivity changes in the factors which lead to optimum allocation of resources because of participation of the countries in international trade. Economists like Viner, Marshall, Samuelson, Haberler, Kemp and Hicks have given different versions to measure the static gains.

Generally the gains from international trade are measured not in terms of amount of foreign exchange earned but in terms of increased production of goods and services resulting from the efficient allocation of available resources according to the absolute or comparative advantage. The classical theory of international trade as propounded by Adam Smith and Ricardo illustrated these gains in terms of simple numerical examples. The neo-classical economists further refined the theory by using the concepts of opportunity cost, constant and increased opportunity cost, straight line and concave production possibility frontiers' and in terms of community indifference curves. They have clearly demonstrated that free international trade based on comparative advantage would result in higher level of consumption and higher level of economic welfare to the consumers. They can move to higher community indifference curves

5.6. Technical Terms

1. **Vent for Surplus Theory**

It is advocated by Myint to explain the distribution of gains to all the trading partners

2.Expansionary Effects

The positive spread effects of international trade on the other sectors of economy

3.Backwash effects

The negative effects of international trade on the other Sectors of the economy

4.Forward and Backward Linkage Industries

Either the Expansionary or negative effects of trade will spread over to both Forward and backward ancillary Industries as well as sectors

5.Static /Direct Gains

The classical economists advocated the static or direct gains arise out of international trade as the gains arrive out of geographical specialization and territorial division of labour. The availability of goods and services at low prices internationally is analyzed as important direct gain from international trade.

6.Dynamic /Indirect Gains

The dynamic gains are analyzed by the neo-classical economists as the long-term gains accrued from international trade. The gains depend upon the expansionary effects of trade on the different sectors of the economy. Also the dynamic gains cause changes in the productivity levels of the economy.

5. 7. Self Assessment Questions

1. Distinguish between Static and Dynamic Gains from Trade.
2. Examine the nature of Backwash effects?
3. What do you mean by Expansionary Effects?
4. Explain the different measures of static gains from international trade?
5. Amplify the argument which states that free trade maximizes the gains from international trade?

5.8. Reference Books

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2. Chacholiades, M. (1990), *International Economics,* New York: McGraw Hill Publishing company.
3. Mannur, H. G. (1983), *International Economics,* New Delhi: Vikas Publications.
4. Pugel, Thomas A., (2000), *International Economics,* New York: Irwin Mc Graw-Hill.
5. A.P. Lerner, The Economics of Control, New York MacMillan Co, 1944.
6. Marshall, Money, Credit, and Commerce, New York, 1924, appendix

(Prof. M.Sundara Rao)

LESSON - 4

DISTRIBUTION OF GAINS FROM TRADE

6.0. Objectives of the Lesson:

The important objectives of this lesson are:

1. To examine the Nature of Gains from Trade
2. To analyze the theoretical aspects relating to distribution of gains from trade
3. To explain the gains from trade and developing countries
4. To know about recent trends in the distribution of gains from trade
5. To elucidate the factors determining gains from trade

6.1. Introduction:

The fundamental reason the different countries engage themselves in transactions with one another is that trade brings gains for them. Right from the time of the pre-classical mercantilists, who maintained that constant export surplus enriched a country up to the modern times, the writers of all shades of opinions, have believed that the consideration of gain alone is the basis of all international transactions.

Just as two traders in internal trade enter into exchange for the consideration of making some gain, in the same way two countries get engaged into transactions for deriving some gain. The economists have viewed the gains from trade from different angles. The classical theorists believed that gains from trade resulted from increased production and specialization. Jacob Viner pointed out that the gains from trade were measured by the classical economists in terms of (i) increase in national income, (ii) differences in comparative costs and (iii) terms of trade. The modern theorists considered the gains from trade as the gains resulting from exchange and specialization. In the process of learning these aspects, we will be using the concepts that we have learned already. These include the concepts of Absolute Advantage developed by Adam Smith, Comparative Advantage provided by Ricardo, Opportunity Cost given by Gottfried Haberler, straight line and concave production possibility frontier and community indifference curves furnished by the Neo-classical economists.

6.2 Nature of Gains from Trade

Foreign trade often plays a paramount role in the economic development of a country. Foreign trade is the treasure house of static and dynamic gains. It provides resources to the world beside markets. It is the major source of foreign exchange to many countries. In smaller Non-oil exporting countries, foreign trade brings 25 to 50 per cent of monetary GNP and in oil exporting Gulf countries, foreign trade accounts for as high as 70 per cent of national income. Foreign trade provides access to scarce resources needed to promote economic growth viz., raw materials, machinery, capital goods, and intermediary producer goods that are indispensable for economic growth. It is supposed to be an indirect transmitter of capital, often through Multinational Corporations (MNCs). It improves the allocative efficiency of nations through international specialization in the production of goods and services.

Foreign trade is expected to promote an atmosphere of healthy competition among trading nations by checking Monopolies and Restrictive Trade Practices. It is considered to be the continuous source of technical know-how, managerial talents and entrepreneurial capabilities. Foreign trade widens the horizons of consumption possibility frontiers of countries far in excess of domestic production constraints. The choice of the consumers increases greatly as the consumers get different varieties of the same good in an open economy. Foreign trade is supposed to bring growth oriented structural changes in the economy by changing the composition of GNP, employment and consumption. Foreign trade is considered to be a better alternative to foreign aid, foreign direct and portfolio investments as the latter are politically vulnerable. Apart from the above benefits that occur to individual trading countries, World as a whole also benefits from international trade.

The World production of every commodity is maximized, through international allocation of resources. Moreover, there will be greater international equality in real incomes. Factor prices and consumption levels and consequently welfare levels across countries of the World are equalized. According to Michael P. Todaro, the relative wage levels would increase in a labour abundant country and fall in a capital abundant country, there by equalizing real wages of labour in all the trading nations. In view of these reasons, the classical and neo-classical economists considered free trade as the first best policy to promote growth in developing

countries. In fact, Robertson termed trade as an 'engine of growth'. According to him, foreign trade accelerates the economic growth of a country by bringing new ideas, new technologies, and new tastes, which in turn give encouragement for developing new products and new methods of production. These are called innovations in economics. The unemployed natural resources and unutilized manpower in these countries are put to better use. The economic history of present day developed countries like U.K, USA, Germany and Japan clearly shows that an increase in the volume of foreign trade helps to accelerate economic growth.

6.3. Factors Determining the Gains from Trade

The size of gains from international trade is determined by several factors discussed below:

(i) ***Terms of trade:*** The terms of trade refer to the rate at which the commodity of one country is exchanged with the commodity of the other country. The terms of trade have the most significant influence on the size of gain from trade of a country. More favourable the terms of trade, large may be the gains from trade. If a country has unfavourable terms of trade, it does not mean that the country derives no benefit from trade. It simply implies that the share of such a country out of the total gains from trade is relatively smaller. Closer the terms of trade of a country to the domestic exchange ratio of two commodities, lesser is the size of gain from trade for it arid vice-versa.

(ii) ***Differences in cost ratio:*** The difference in comparative cost ratios of producing two commodities in the two trading countries have much bearing upon the gain from international trade. If country A has comparative cost advantage in the production of cloth and B has cost advantage in the production of steel, they will specialize in these respective goods and make gain from trade. If specialization results in a relatively greater fall in the cost of cloth in country A than that in steel in country B, greater gain from trade will become available to A and vice-versa.

(iii) ***Reciprocal demand:*** The reciprocal demand refers to the elasticity of demand for the product of one country by the other country. If the demand for cloth (exportable of A) is less elastic in country B, the latter will offer more quantity of steel for one unit of cloth. It will cause the terms of trade to turns in favor of country A and this country will obtain a greater share

from the total gain from trade. On the opposite, if the demand for steel in country A is less elastic or more intense, the terms of trade will move in favor of B and consequently greater gain from trade will become available to it. A country whose demand for the foreign products is more elastic, but the demand for its products from the foreigners is less elastic is likely to gain the most from international trade.

(iv) ***Level of Income:*** The higher or lower level of money income of a country too determines the gain from trade for it. If the products of the home country command a strong and permanent demand, the expansion in its exports will raise the incomes from exports. The output in these industries will expand and the increased demand for labour will raise the money wages of workers. The employers in other industries will also raise wages to retain their more efficient workers. Thus, there will be an overall increase in money incomes. The import of relatively cheaper commodities while domestic money incomes are high signifies the gain from trade. On the opposite, the low domestic money income due to low exports or larger imports from abroad, while import prices are high, will reduce the level of welfare and result in smaller gain from trade.

(v) ***Productive efficiency:*** If there is an improvement in the productive efficiency in the home country, the costs and product prices decline. As the foreigners can import commodities from this country at lower prices, the terms of trade go in favour of foreign country. The larger proportion of gain from trade too goes to the latter. An increased efficiency in a foreign country will enable the home country to import goods at relatively lower prices. This will cause an improvement in the terms of trade for the home country and larger share out of gain from trade will become available to the home country.

(vi) ***Factor endowments and technological conditions:*** If a country is capital abundant and advanced from economical and technological view points, it will have a large volume of foreign trade. Corresponding to the volume of its foreign trade, its share out of gain from international trade is also likely to be larger. On the other hand, a technically and economically back-ward labour-abundant country will have a small size of foreign trade. The gain from trade for such a country will also be relatively small.

(vii) ***Nature of products exported:*** If a country predominantly exports the primary products, the term of trade for it will be unfavourable and the gain from trade for it will be smaller. On the

opposite, if the exports of a country are largely of manufactured goods, the terms of trade will be favourable for it. Such a country will obtain a relatively larger share out of the gains from trade.

(viii) ***Size of the country:*** A small country has a limited size of domestic market. Its productive resources too are limited and specific. The specialization and exchange within the home country can bring very little benefits for it. As international trade commences, this country may completely specialize in the production of such commodities in which it enjoys comparative advantage over the other countries. The greater the difference between the international price and domestic price of its exported products, greater will be the share out of gain from trade for this country.

6.4. Theoretical aspects relating to Distribution of Gains from Trade

In the Classical Theory, the gains are measured not in terms of amount of the foreign exchange earned or in monetary terms but in real terms. The gains are measured in terms of increased domestic production of goods and services or in terms of increase in the level of consumption or welfare.

A clear description of gains from Trade is traceable in the writings of Adam Smith. International trade enlarges the horizon of market and creates an outlet for the surplus products over domestic consumption of the isolated economy. If the isolated economy about to enter into trade, has surplus capacity suitable for export markets it has castles means of acquiring imports and expanding the aggregate domestic economic activity. When trade takes place between old countries where total resources are given and are fully employed, the function of trade is 'to reallocate these given resources more efficiently between the production of domestic and export goods in the light of new sets of prices now open to the countries. In this situation, each country gains when the total output increases as a result of the more extensive application of division of labour and specialization which became possible when goods are produced on large scale as consequence of trade. Smith had given a simple and powerful explanation of gains from international trade and policy of non-intervention put forward by him. Here, the gains are measured in terms of increased availability of goods through trade as compared to the domestic production .Smith also viewed that i*n* the process of specialization and exchange, labour can be

saved and the saved labour can be used for production of more commodities, thereby the World production of every commodity can be maximized

According to Ricardo, International trade contributed to a increase in the sum of enjoyments by contributing very powerfully to increase the mass of commodities. The gains from trade accruing to the countries are in the form of greater magnitude of more kinds and varieties of goods that become available for consumption in each country as a result of international trade. Ricardo stated that free trade according to comparative advantage results in the maximization of World production of every commodity. There will be increase in the world production of every commodity even according to Ricardo's Comparative advantage. This is indeed an important gain from international trade. The logical validity of this model has not been challenged even today.

Malthus viewed that the gains from trade consists of the increased value which results from exchange what is wanted less for what is wanted more and international trade by giving us commodities much better suited to our wants and tastes than those which had been sent away has decidedly increased exchangeable value of our possession, our means of enjoyment and wealth. John Stuart Mill call it the 'direct-gains' from trade, modern economists refer it as the static gains from trade. As J.S. Mill emphasized, it is necessary to introduce the demand side also. He used the concept of reciprocal demand i. e., demand by each trading nation for, each other's exports.

By increasing the size of the market, international trade improves the scope of division of labour in production and consequently raises the general level of productivity within the country. This is often referred to as productivity theory of international trade The productivity doctrine looks upon international trade as a dynamic force which, by widening the extent of the market, and the scope of division of labour raises the skill and dexterity of the workmen encourages technical innovation, overcomes technical indivisibilities and generally enables the trading countries to enjoy increasing returns and economic development. Prof. Hla Myint regarded this gain as indirect effect of trade which must be counted as benefits of the higher order. This type of gains considered as dynamic gains from trade by the modern economists.

The neo classical economists stated that the gains from international trade can be analyzed and understood in a better way, in terms of 'production possibility frontier' or 'transformation curve'. A country's production possibility frontier exhibits maximum quantities of commodities that an economy can produce given (i) the resources (labour and capital) and (ii) technical coefficients of production (Technology). They stated that larger the differences in the slopes of production possibility frontiers of the two countries, larger will be the source of gain. The difference in the slopes of production possibility frontiers occurs due to differences in the pre trade or autarkic exchange ratio between the two commodities. In the limiting case where pre-trade exchange ratios are equal in the two countries, the slopes of the production possibility frontier will also be equal and hence the shaded area shrinks to zero.

This is the case of 'equal exchange' situation where there is no basis for mutually gainful trade between the two countries. So long as the slopes of production possibility frontiers of two countries are not equal, there will be basis for mutually profitable or gainful international trade and countries can gain from such trade. The neo-classical economists introduced the concept of community indifference curve, which summarizes the tastes, and preferences of society as a whole as against individual indifference curve. As we noted already international trade enables countries to consume beyond their production possibility frontier and take them to higher community indifference curve.

6.5. Gains from Trade and Developing Countries

How are the gains distributed among the trading nations? This depends upon the equilibrium exchange ratio or terms of trade, which is determined by the forces of demand and supply. Thus gains from the international trade depend upon the terms of trade and the degree of difference in the pre-trade price ratios of the countries.

The dynamic gains from trade that accrue to an underdeveloped economy is in the form of a perennial flow of resources including technology and it is expected that these gains continue even after the economy becomes integrated into the world economy. Trade is a dynamic force that stimulates innovation .New ways of producing and organizing production are spread to the local economy through trade and the competitive force of trade stimulates

adoption of cost saving techniques. Trade also makes possible economical local production of many goods that would otherwise be prohibitive to produce locally.

In case of developing countries however a strong secular growth of exports has failed carry over substantially to other sectors and has therefore not led to a wide spread development in the domestic economy. The spread effect of a given export activities will depend on the nature of export item in question.

The idea that international trade can benefit under developed countries has been attracted by several economies on theoretical and empirical grounds. Myrdal, Singer, Prebisch and others argue that the facts are completely at variance with the predictions of traditional trade theory. They argue that instead of leveling international disparities of income in fact international trade aggravated the international Inequalities. Myrdal argues that international trade sets up a cumulative process of away from equilibrium in factor prices. This cumulative process causes a growing disparity of world income. Prebisch and others have argued that the developing countries in the long run would not gain from trade as their terms of trade have a tendency to deteriorate. The terms of trade of primary producing under developed countries had seriously deteriorated in relation to industrial countries.

International trade played a crucial role in the historical development of the third world countries throughout Africa, Asia, the Middle East and Latin America, Primary products exports have traditionally accounted for a sizeable proportion of individual gross national products. In some of the smaller countries 25 to 30 percent of the GNP is derived from the overseas sale of agricultural commodities such as coffee, tea, cotton, coco and sugar. In the case of oil producing countries the sate of unrefined and refined petroleum products throughout the world accounts for over 90 percent of their national income. But unlike the oil producing states, most of the developing countries depending on non-mineral primary product exports for the majority of their foreign exchange earnings. Since markets for these exports are often unstable, primary export dependence carries with it a degree of risk and uncertainty. On the other hand many developing countries depend only on importation of manufactured commodities. In case of most of the non-oil rich developing countries import demand have exceeded the capacity to generate from the sale of exports.

This had led chronic deficits on their balance of payments. In a number of Third world countries severe deficits on balance of payments have led to a rapid depletion of their international monetary reserves, which ultimately distorts internal growth prospects. The differences in the gains from trade accrued by industrial and less developed countries ultimately widening the trade gap between them.

International trade sometimes leads to fast exhaustion of non-replenishable resources. This is especially so in the case of less developed countries whose exports are mostly natural resources. International trade sometimes ruins domestic resources and competition. International trade sometimes disturb domestic economic institutions and structure, as well as social and political setups.

6.6. Recent Trends in the Distribution of Gains from Trade

The gains from trade may not be evenly distributed between the participating countries. Some countries may gain more which the gain for others may be relatively small. The most important determinant of the distribution of gain is the terms of trade i.e. the rate at which a country's exports are exchanged for imports. The greater the difference between the domestic cost ratios, the greater will be the gains from the trade. However, the distribution of the gains between two countries will depend upon the international exchange ratio or the terms of trade. The closer the terms of trade to the domestic exchange rate of a country the lesser will be the gain earned by the country and the greater will be the gain for other country and vice versa: The distributional disparities which widen the trade gap between advanced and developing countries became central issue for discussion.

To avoid the widening trade gap between the industrial and less developed countries to reduce the disparities in the gains from trade on the front of developing countries there must be an expansion in exports, improvement in the terms of trade and increase in the flow of capital and aid. To overcome the widening trade gap the less developed countries contend that the commercial policies of developed countries to be liberalized, a new international code of conduct in trade relations must be adopted by W.T.O and the international monetary system should be reformed, There is an argument that the postwar international institutional

arrangements embodying GATT and the IMF do not squarely meet the problem of developing countries. Due to this the gains from trade have already been distributed historically in favor of advanced countries. This calls for international economic reforms in order to reduce the inequalities in distribution of gains from trade. Also the developing countries has to take all possible measures put hard efforts within their economies to maximize the spread effect of a given export activity to extract maximum dynamic gains from the international trade.

6.7. Conclusion

International trade refers to the exchange goods and services between the residents of one country and the residents of other countries. There are several advantages or benefits from international trade. The consumers get a variety of goods and services at very low levels of prices. The world as a whole benefits from international trade because the world production of every commodity is maximized, in international economics. The conditions prevailed in the international system reveal that though some of the world countries developed their economies through trade during 19th century, most of the countries are not able to use trade as an engine of growth during the 20th century because of difference in the distribution of gains among the world countries There is an argument that because of their unfavorable demand and supply conditions towards their exports/imports the developing countries are unable to gain from international trade. However the recent trends in the international system particularly the ongoing globalization tendencies and emergence of GATT as World Trade Organization etc.. are re-imposing positive outlook in the minds of developing countries about the gains arise from future international trade.

6.8. Technical Terms

1. **Gains from Trade*:*** Gains from trade refer to the advantages that occur to the trading nations from the free or unregulated international trelfe in the form of increased domestic production and consumption beyond the donpstic production constraints.
2. **Absolute Advantage:** Adam Smith developed this coft&ept. It refers to a situation where one country has lower ***6o***st in one line of production relative to

another country and the second country has lower cost relative to the first country in the second line of production.

3. **Comparative Advantage:** David Ricardo developed this concept. It refers to a situation where one country has absolute advantage in both lines of production and another country has absolute disadvantage in both lines of production provided no country is equally efficient or inefficient in both the lines of production.
4. **Opportunity Cost***:* Gottfried Haberler developed this concept. Opportunity Cost in the production of a commodity say, X refers to the amount of production of other commodity/commodities that must be given up in order to produce one unit of the first commodity.
5. **Labour Theory of Value:** The classical economists believed in the labour theory of value. The theory states that the cost of labour involved in the production of a commodity alone determines the value of the commodity.
6. **Production possibility frontier:** Production possibility frontier for a two-commodity case refers to the maximum obtainable quantities of two commodities, given the resources, labour and capital and technology.
7. **Concave Production Possibility Frontier:** The neo-classical economists developed the concave production possibility frontier. It is concave to the origin. It reflects the increasing opportunity cost of producing the good.
8. **Problems Oriented with Distribution of Gains from Trade:** The classical and neo-Classical economists stated that the gains from trade will be distributed equally among all world countries. Depending upon the experiences of the international economy economists like Myrdal, Singer and Prebisch advocated the view that the gains from trade are relatively distributed more towards advanced countries and very low to the less developed countries.

6.9. Self Assessment Questions

1. Write about the Nature of Gains from Trade?
2. Analyze the different theoretical aspects relating to gains from trade ?

3. Explain the issues relating to gains from trade of developing countries?
4. Briefly outline the recent trends in the distribution of gains from trade?
5. Elucidate the factors determining the gains from trade?

6.10. Reference Books

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LESSON - 5

DIFFERENT CONCEPTS OF TERMS OF TRADE

7.0. Objectives of the Lesson:

The important objectives of this lesson are:

1. To examine the meaning and definition of terms of trade
2. To analyze the different concepts terms of trade
3. To explain the factors determining the terms of trade
4. To identify the problems associated with the measurement of terms of trade

7.1. Introduction

In international trade, the concept "terms of trade" is perhaps mostly and widely-used by policy makers. It is partly because it is relatively easy to understand and partly because of its importance, particularly for a developing economy, and it is convenient to explain country's balance of payments difficulties. Notwithstanding the similarity of the technicalities of terms of trade for both the developed and developing countries due to the greater sensitivity of prices of raw materials over the business cycle of developed economies, the greater dependence of developing economies on fewer export goods. In recent years both the policy discussions and academic writings about the terms of trade have been associated more with the problems of the developing countries than those of developed countries. Also the tonus of trade is the most important determinant of the distribution of gains from trade and is an important measure to evaluate gains to individual countries from international trade.

7.2 Meaning and Definition of Terms of Trade

The price at which goods are cleared in international trade is known as the international exchange ratio or terms of trade. This price is different from the market price, determined in the domestic market, and the problem of terms of trade essentially involves an examination of demand-supply schedules. Terms of trade is indicated as a ratio between the index of export price and index of import prices. The ratio of export and import prices is nothing but the cost ratio which is simply the ratio of factor -costs of production involved in the production of goods in question. Thus in terms of trade, the physical exchange ratio is an indicator of the interaction of many forces governing the economic relations and welfare of the countries engaged in trade.

7.3 Different Concepts of Terms of Trade

In the foregoing section we have defined terms of trade as the ratio of the index of export prices to import prices. Of course, in the early days the concept meant what we have stated above. But later, the terms of trade measures have been extended to cover the trends in the rate of consumption of productive resources by goods exported and net utility from trade.

The concept of terms of trade was developed by John Stuart Mill in the form of the equation of international demand. It is also known as reciprocal demand. The Mill's doctrine was further improved by numerous economists, such as Prof. Marshall and Prof. Viner. They introduced the concept of factorial terms of trade. The modern approach to the derivation of terms of trade is the foreign trade multiplier theory embodying the price and income effects.

Gerald Meier has classified the different concepts of terms of trade into the following three categories :

1). Concepts that relate to the ratio of exchange between commodities, they are :

a) Net Barter Terms of Trade

Net barter terms of trade is also called the commodity terms of trade introduced by Marshall.

$$N=Px/Pm$$

He measured the terms of trade as relative changes in the import and export prices are expressed as Where Px and Pm are price index numbers of exports and imports, respectively.

A rise in N indicates that a larger volume of import could be received on the basis of price relations only, in exchange for given volume of exports. According to Taussig, however, the net barter terms are relevant only when nothing enters into the trade between countries except sales and purchases of merchandise. Thus the concept of net barter terms of trade has certain draw backs. It measures only the gain or loss,

arising out of relative changes in the export and import prices. It completely ignores the impact of factors like, changes in the level or volume of exports and imports, changes in the quality of exports and imports, changes in the composition of trade, changes in the productivities of export industries and unilateral payments.

b) Gross Barter Terms of Trade

Taussig introduced the concept of gross barter terms of trade to correct the commodity or net baiter terms of trade for unilateral transactions, or exports or imports which are surrendered without compensation or received without counter payment, such as tributes and immigrant remittances. The gross barter terms of trade is the ratio of the physical quantity of imports to physical quantity of exports

It may be expressed as

$$G = Qm/Qx$$

Where Q_m and Q_x are the volume index numbers of imports and exports respectively.

A rise in G is regarded as a favorable change in the sense that more imports are received for a given volume of exports than in the base year. The appropriateness of incorporating unilateral payments into the terms of trade has. However, been questioned. However, he has suggested that allowance should be made separately for unilateral transactions, instead of incorporating those in the terms of trade index Though Taussig introduced the concept of gross barter terms of trade as an improvement over the net barter terms of trade, it also has certain defects. For instance, like the net barter terms of trade, it does not reflect the impact of changes in productivity nor changes in the quality and composition of foreign trade.

c) Income Terms of Trade

G.S Dorrance has modified the net barter terms of trade and presented the income terms of trade. The income terms of trade which indicates a nation's capacity to import is represented as.

$$I = PxQx/pm$$

It may also be expressed as

$$I = N.Qx, (\text{because } N = Px/Pm)$$

The income terms of trade indicates a nation's capacity to import when the index of total export earnings (Px.Qx) is divided by the import price index. We get the quantum of index of imports that can be made with the export earnings Therefore, a rise in I indicates that the nation's capacity to import, based on exports has increased, i.e. it can obtain a larger volume of imports from the sale of its exports. It should, however, be clear that I indicates only the export-based capacity to import and not the total capacity of the nation to import For the total capacity to import depends on facts like capital inflow, receipts from invisible and unilateral payments. The income terms of trade will improve if the physical volume of exports increase more than in proportion to the fall in export prices. This demonstrates amount rates that a change in the income terms of trade need not necessary reflect the real gain or loss. This is a serious drawback of this concept.

2) Concepts that relate to interchange between productive resources, they are:

(a) Single Factoral Terms of Trade

Jacob Viner introduced the concepts of single factoral and double factoral terms of trade to modify the net barter terms of trade so as to reflect changes in productivity The single factoral terms of trade is the net barter terms of trade, adjusted for changes in the efficiency or productivity of a country's factors in its export industries. It may be expressed as.

$$S = N. Zx$$

Where Zx is the export productivity index.

A rise in S implies that a greater quantity of imports can be obtained per unit of factor-input used in the production of exportables. Hence a rise in S is regarded as a favourable movement.

(b) Double Factoral Term of Trade

The double factoral terms of trade is the net barter terms of trade corrected for. changes in the productivity in producing imports as well as exports. It may be expressed as.

$$D = N. Zx/Zm$$

Where Zm is an import productivity index

A rise in D is a favorable movement, because it implies that unit of home factors embodied in exports can now be exchanged for more units of the foreign factors embodied in imports.

D will diverge from S when there is a change in the factor cost of producing imports but as Gerald Meier states this has no welfare significance for the importing country even though it indicates a change in productivity in the country form which commodities are imported. What matters to the importing country is whether it receives more goods per unit of its exported factor input and not whether these imports contain more or less foreign inputs than before.

The factoral terms of trade, both single and double are of little practical importance because it is very difficult to measure statistical changes in the productive efficiency of the factors of production. Another drawback is that they do not reflect the real gain arising out of international trade.

3) Concepts that interpret the gains from trade in terms of utility analysis, they are:

a) Real Cost Terms of Trade

The Concept of real cost terms of trade, introduced by Jacob Viner attends to measure the gain from international trade in utility terms. The total amount of gain from trade may be defined in utility terms as the excess of total utility accruing from imports over the total sacrifices of utility involved in the surrender of exports. To find out the real cost terms of trade, we correct the single factoral terms of trade index by multiplying S by the reciprocal of an index of the amount of disutility per unit of productive resources used in producing exports.

The real cost terms of trade may be represented as.

$$R = N . Fx Rx$$

Where Fx=index of productivity efficiency in export industries and Rx= Index of the amount of disutility incurred per unit of productive factors in the export sector.

A rise in R indicates that the amount of imports obtained per unit of real cost is greater. R may rise as a result of a change in the methods of producing exports, or a change in factor proportions used in exports. The concept of utility terms of trade, which was also introduced by Jacob Viner, is improve the real cost terms of trade.

b) Utility Terms of Trade

Viner points that the amount of gain from trade depends not only on the amount of foreign goods obtained per unit of real cost involved in the production of the export commodities, but also on the relative desirability of import commodities as compared to the commodities which could have Been produced for. Home consumption with the productive resources now devoted to production for export. To take account of changes in the relative desirability of import commodities and native commodities whose internal consumption is precluded by the allocation of productive resources to production for export, when such changes in relative desirability are due to changes in tastes, it would be necessary to incorporate in the 'real cost trade index[1],an index of relative average utility per unit of imported commodities and of native commodities whose internal consumption is precluded by allocation of resources to production for export The utility terms of trade made may be represented as:

$$U = N. Fx Rx. Um$$

Where Um=index of relative utility of imports compared to the commodities that could have been produced for internal consumption with those productive factors which are devoted to the production of export goods.

In other words, utility terms of trade are obtained by multiplying the real cost terms of trade with the index of the relative desirability or utility of imports compared to the goods that could have been produced for home consumption with those factors of production which are now used in the production of export goods. Robertson calls utility terms of trade as the true terms of trade. The concepts of the real cost terms of trade and the utility terms of trade refer to the subjective costs whose measurement is not possible and these concepts are of no significance in practical life. In practical life

the concept of the commodity terms of trade is generally employed to measure the gains from international trade.

7.4 Determining Factors of Terms of Trade

The terms of trade of a country depend on a nature of factors, such as population growth, nature of the goods imported and exported, government's trade policy, taxes and capacity to import etc.. Any change in anyone or all of these factors will cause a change in the relative intensity of demand of a country which in turn will affect her terms of trade. The major factors affecting the terms of trade are presented here.

There are two important effects of economic development to be considered, namely, the demand effect and the supply effect. The demand effect refers to the increase in demand for imports as a result of the increase in income, associated with economic development. The supply effect refers to the increase in supply of import, as competing goods are import substitutes. The net effect on the terms of trade will obviously depend upon the extent of these effects.

The terms of trade of a country may be affected by tariffs and quotas. The latter, if not retaliated by other countries, may have the effect of improving the terms of trade under certain conditions.

Generally, a country may levy an import tariff in order to improve her terms of trade. However, the specific effects of a tariff improving country if the elasticity of the other country's offer curve is greater than unity and less than infinity. Changes in the rate of exchange of the currency affect terms of trade. If a country's currency appreciates, the terms of trade of that country will improve, because the currency appreciation cause an inverse in the prices of exports and decline in import prices. Similarly devaluation lowers the value of the home currency unit expressed in terms of the currency of foreign country. As a result of devaluation, the terms jot trade of that country will deteriorate because of lower export prices and higher import prices after the devaluation. However the tendency of devaluation is to improve the terms of trade if the product of demand

elasticities for country's exports and imports than the product of the supply elasticities of her imports and exports.

The elasticity of demand for export and imports and the elasticity of supply of exports and imports of a country significantly influence its terms of trade. When the demand for the country's exports is less price elastic as compared to her imports, the terms of trade tend to be favorable because under such a situation exports can command a relatively higher price than imports On the other hand, if the demand for imports or less elastic than that for exports the terms of trade tend to be unfavorable.

If the supply of a country's exports is more elastic than the imports, the terms of trade is likely to be favorable because by contracting and expanding the supply of exports in accordance with the market conditions it may be possible to have some control over export prices If import substitutes are available in large quantity in the country, the terms of trade will be unfavorable for the exporting country. In the absence of availability of close substitutes the bargaining power of the exporting country will be strong. Consequently the terms of trade will be favorable for the exporting country.

Competitive conditions in the international market are also another important influence on the terms of trade If the country enjoys monopoly or oligopoly power in case of its exports and there are a large number of alternative sources of supply of imports, the country would have a favorable terms of trade. The absence of close substitutes enables a country to sell her products at high prices. It is the near monopoly power enjoyed by the oil cartel that enabled the OPEC to improve their terms of trade by hiking the oil prices. Also capital transfer from one country to another also influences a country's terms of trade depending upon the nature of the capital movements and flows.

7.5 Difficulties in Measurement of Terms of Trade

The use of price index to measure terms of trade has the following limitations: firstly, index number of import and export prices make no allowance for changes in the composition and capital of goods traded or for changes in the composition of goods entering into international trade changes in the quality and composition of exports and

imports frequently take place. Second problem associated with the price index pertains to that of assigning appropriate weights to various commodities that enter die international trade of the country. Many commodities which were unknown few years back cannot be given suitable weightage today. Consequently, secular changes in the prices of goods and the volume of commodities cannot be measured with precision and accuracy. Thirdly, the net barter or commodity terms of trade, cannot serve as reliable measure of the welfare gain form trade without taking productivity into account with changing efficiency the net barter terms of trade are distinctly misleading as a measure of welfare. So we must also take into account improvements in productivity.

Fourthly, the time leg between exports and imports also poses a problem in the exact measurement of the terms of trade. If a country exports when the terms trade are favorable because of lower prices of imports (export prices remaining constant) and imports when the terms of trade are favorable because of lower prices of imports (prices of exports remaining constant) her actual terms of trade remain constant although the indices show an improvement in her terms of trade. Also the price indices of import and export goods are usually based on the price declarations made to the customs authorities, which may differ from the actual market selling price of the imports and exports.

Lastly, in estimating the price indexes, selection of some suitable base year is of vital importance. The particular base year chosen should be a normal year A base year which is normal form all considerations is however very rare to come across in real life, generally countries choose a favorable year and not a representative year as a base year.

7.6. Conclusion

Terms of trade are of greater importance both in National and International policy making decision. The policy objective, though not allowing a country's terms of trade to deteriorate it is considered however, as means to achieve, but this objective is neither simple nor clear-cut. In this lesson, we focused our attention on the discussion of the concept of terms of trade. The first of the concept of terms of trade assumes importance for two reasons. Firstly, terms trade determine the magnitude and the distribution of gains from trade among the trading nations. Secondly, there is controversy among the

economists over the long- development in the terms of trade of different groups of countries. There are seven concepts of terms of trade viz., Gross Barter Terms of Trade, Net Barter Terms of Trade, Inc Terms of Trade, Single Factoral Terms of Trade, Double Factoral Terms of Trade, Real Cost Terms of trade and Utility Terms of Trade. Among these concepts, only the first few concepts of terms of trade are important and they are used widely in practice, computation of the other concepts of terms of trade is relatively difficult and the practical utility of these concepts of terms of trade is also limited.

7.7. Technical Terms

1. **Gross Barter Terms of Trade :** It is defined as the ratio of import quantity index to export quantity index multiplied by the factor 100.
2. **Net Barter Terms of Trade :** It is defined as the ratio of export price index to import price index multiplied by the factor 100.
3. **Income Terms of Trade :** It is defined as the product of net barter terms of trade and export quantity index.
4. **Single Factoral Terms of Trade :** It is defined as the ratio of export price index and import price index adjusted for the productivity of the factors employed in the expert sector.
5. **Double Factoral Terms of Trade:** It is defined as the product of net barter terms of trade and the ratio of productivity index of factors employed in the export and import competing sectors.
6. **Real Cost Terms of Trade** : It is defined as the product of the net barter terms of trade and the ratio of productivity index of factors in the export sector to real cost of producing the export good.
7. **Utility Terms of Trade** : It is the product of real cost terms of trade and the reciprocal of the index representing the relative desirability of imports and of domestically produced goods.

7.8 Self Assessment Questions

1. What is meant by terms of trade?
2. Examine the Definition of Terms of Trade?
3. Explain Different Concepts of Terms of Trade?

4. Identify the Determining factors of Terms of Trade?

5. Analyze the Difficulties in measurement of Terms of Trade?

7.9. Reference Books

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(Prof. M.Sundara Rao)

LESSON - 6

HYPOTHESIS OF SECULAR DETERIORAION OF TERMS OF TRADE

8.0. Objectives of the Lesson:

The important objectives of this lesson are:

1. To examine the Secular Deterioration Hypothesis.
2. To analyze the differences in the income elasticity of demand.
3. To explain the relevance of Singer and Prebish thesis in developing countries.
4. To identify the reasons for unfavorable terms of trade of developing countries.

8.1. Introduction

Terms of trade acts as a dividing line in the distribution of gains among the trading partners. Closer this line to the pre-trade price ratio or production possibility frontier of a particular country, smaller will be the gains that will accrue to that country. A larger proportion of the will go to the partner country. In the extreme case when the terms of trade line coincides: the pre-trade price ratio or the production possibility frontier of the country, the country gain nothing from international trade. The entire gain from trade in terms of increase in levels of consumption will go to the partner country. Another important reason for the terms of trade is that there is a controversy over the long run 'movement of the terms of trade.

Some economists particularly those belonging to the British school, argue the terms of trade go against the developed countries that export manufactured commodities and import primary commodities. This is because the prices of agricultural commodities increase in the long run due to decreasing returns to scale in agriculture. On other hand some other group of economists called modern economists like Hans Singer and Raul Prebish argue that over a long period of time, the terms of trade go against the developing countries that export primary commodities and import manufactured commodities. In this lesson, we will discuss the long run movements in the terms of trade of the developed and the developing countries.

8.2. Secular Deterioration Hypothesis

One of the important objectives of studying the concepts of terms of trade is to understand the controversy over the long- term movement in the terms of trade of the developing and the developed countries. The long run movement of terms of trade also known as the development of terms of trade was a major concern to the classical

economists, "it was stated to be an offspring of nationalism in Britain during the 18th century. There are broadly two groups of theories explaining the long run movements in the terms of trade viz., British School and the Modem School. The British School argued that over a long period of time, the terms of trade would go against the developed countries that export manufactured commodities and import primary commodities. The Modern School, on the other hand, argued that the terms of trade would go against the developing countries that export primary commodities and import manufactured commodities.

The argument of the British school goes back to the heydays of English Classical economists during 18th century. The centre of the argument of the British School was the application of the law of diminishing returns to agriculture by Ricardo. With diminishing returns to scale in agriculture, the cost of cultivation of agricultural produce (primary commodities) goes up especially on the marginal land. Hence, the prices of primary products also go up. On the other hand, the division of labour and increasing returns to scale in manufacturing activity reduces the cost of production. As Torrens wrote in 1821, as several nations advance in wealth and population trade becomes less beneficial between the old nations producing raw produce and the new countries producing manufactured products.

The trading activity would come to a standstill and the countries become self-centered. Keynes also wrote that there was a tendency for a given unit of manufactured product to purchase year by year a diminishing quantum of raw produce and as a result, the terms of trade would go against the developed countries producing manufactured goods. The British School of thought was criticized on the ground that it was built on simple and narrow assumption and that it did not take into account the technical progress in agriculture.

In 1950s several modern economists such as Raul Prebisch, Hans Singer and Gunnar Myrdal argued that developing countries that were exporting primary products were experiencing steady and systematic deterioration in their net barter terms of trade. As a result, the developing countries had to export increasing amounts of their primary products in exchange for the manufactured products from the developed countries specializing and exporting these products. This argument is known as the secular

deterioration hypothesis or thesis. It is also known as Singer-Prebisch hypothesis as these two economists were mostly responsible for the development of the hypothesis. Their main contention was that the unfavorable impact of unrestricted trade on terms of trade and balance of payments of the developing countries far outweighed the advantages that occurred as a result of international specialization (efficient allocation of resources) according to comparative advantage.

The Secular Deterioration Hypothesis is based on three important theoretical arguments viz., i). Differences in the income and price elasticity of demand between primary and manufactured products, ii). Reverse transmission of the benefits of technical progress from the developing countries to the developed countries and iii). Market imperfections in developing and developed countries. In order to analyze the hypothesis, Singer and Prebisch classified the countries into two groups viz., the Centre, also known as the developed countries and the Peripheral, also known as developing countries. Countries in the Centre produce and export manufactured products and the countries at the Peripheral produce and export primary products. In the light of this type of theoretical setting, let us examine the secular deterioration hypothesis in detail.

8.3. Differences in the Income Elasticity of Demand

Based on Engel's Law, it is generally maintained that the income elasticity of demand for manufactured commodities is higher (greater than unity) than that for the primary commodities (less than unity). As a result, a larger proportion of increased income would be spent on manufactured products and consequently the demand for manufacture-: products would grow at a higher rate than that for the primary products. In a two country-and-two commodity model, the demand for the exports of manufactured products of the developed countries would increase at a higher rate than the demand for the exports of the primary commodities from the developing countries. Conversely, the exports of the developing countries would grow at a lower rate than their imports. The developing countries, in order to clear deficit in the balance of payments have to reduce their export prices. This implies that their net barter terms of trade, which is a quotient of their export prices to their import prices, would deteriorate.

In order to illustrate this point, let us assume that the income elasticity of the demand for the manufactured products is 1.3 and the income elasticity of the demand for the primary products is 0.8. Let us also assume that the growth rate of income in both developed and developing countries is 3.0 per cent per annum. It should be noted that the growth rate of demand for exports of any commodity is the product of income elasticity of demand for that commodity and the growth rate of income.

Generally the developed countries experience surplus in the balance of payments and the developing countries experience deficit in the balance of payments as a result of the differential growth rates of their exports and imports. Starting from equilibrium situation in the balance of payments in a year, for the developing countries, imports outstrip exports every year by 1.5 per cent and for the developed countries exports outstrip imports by 1.5 per cent every year. This would result in the persistent or long-term deficit in the balance of payments for the developing countries and the persistent or long- term surplus in the balance of payments for the developed countries. Due to this secular or long-term deficit in the balance of payments for the developing countries, the net barter terms of trade deteriorate for the developing countries in the long run.

If the population growth in the developing countries is greater than that in the developed countries, the problem would be still worse. In that case the growth of income should be still higher, and higher growth rate of income would lead to higher imports of manufactured goods from the developed countries. Consequently, the balance of payments problem and the worsening terms of trade for the developing countries would be still more serious. Another solution to the problem is that the developing countries must grow at a les rate than 3.0 per cent per annum. In that case the developing countries would - lagging behind the developed countries for ever as the latter are growing by 3.0 per cent per annum whereas the former are compelled to grow by 2.4 per cent per annum. This would further widen the already existing global inequalities among the nations of the world.

The demand bias argument is criticized on three grounds. Firstly, the terms "primary product exporters" and the "developing countries" are not synonymous. For instance United States, Canada and Australia export food products to the rest of the

World to large extent. On the other hand, developing countries like South Korea and Taiwan export manufactured products such as transistors, radios and automobiles. Secondly, the sup- of manufactured goods increased in recent years in the advanced countries. The prices the commodities are determined both by demand and supply. Since the supply manufactured goods increased in relation to the demand, the prices of manufactured goods also would fall in the market. On the basis of demand bias alone, one cannot argue to primary products are becoming cheaper relative to manufactured goods. Thirdly, as we are going to see in the next section, technical progress in the manufacturing sector has resulted in drastic fail in the prices of manufactured commodities including computers and electronics.

8.4. Impact of Technical Progress on Terms of Trade

Singer and Prebisch argued that in the normal course of action, the net barter terms trade should be favorable to the developing countries because, primary production subject to diminishing returns and the technical progress is more rapid in the manufacturing sector. If prices were related to costs, this would result in the increase in the ratio of prices of primary products to those of industrial products. But Prebisch and Singer found res contrary to this normal course of action because of two reasons.

Firstly, in developed countries, incomes rise with productivity and hence there is a great upward pressure the prices of manufactured products in these countries. Consequently, the prices manufactured products rise rapidly in these countries. But in developing countries, due to population pressure and surplus manpower, incomes rise more slowly than productivity and hence the demand for products would be sluggish resulting in lower level of prices for goods and services. Secondly, there is some form of 'Ratchet Effect' operating between the prices of primary and manufactured products during different phases of business cycles.

Due to this effect, in both developed arid developing countries, primary product prices tend to rise more rapidly than the manufactured product prices during the upswing of the business cycle. But in developing countries, the prices of primary products fall more rapidly than the manufactured product prices in developed countries during the down swing of the business cycle. This is because trade unions are very strong in

developed countries resisting any fall in the prices of manufactured products in these countries. But the primary producers in the developing countries are not organized. Hence, in these countries, there will not be any resistance to the fall in the prices of primary products during the down swing of the business cycle. Due to this Ratchet Effect, the terms of trade of the developing countries deteriorate in the long run.

The rapid technical progress in industrial sector resulted in the emergence of cheap substitute products for many primary commodities. For instance, due to the invention of low cost synthetic rubber, the prices of natural rubber have fallen. To cite some more examples, in the place of aluminum products, plastic containers have come into existence. In the place of jute made gunny bags and threads, synthetic bags and plastic bags have come into existence. Instead of cotton fabrics and silk fabrics, polyester, terry cotton fabrics are widely used. Naturally, the demand for the primary products and hence the prices of primary products have been steadily falling in the World markets leading to deterioration in the net barter term of trade of the developing countries.

8.5. Impact of Market Imperfections on Terms of Trade

In industrial countries, monopolistic and oligopolistic organizations are more common particularly those engaged in export business. But in developing countries, the primary producing and exporting activities including agriculture are generally working under competitive conditions. Firms working under imperfect market structure would bring better terms of trade to their nation than those working under competitive conditions. In developed nations, technical progress does not lead to lower prices. Rather the manufacturer retains any productivity gain that occurs due to the technical progress in the form of higher profits. Sometimes the gains are passed on to the workers in the form of higher wages. In developing countries, where there is surplus labour, technical progress results in lower prices because other factors of production like entrepreneurs and labour do not claim the gains because of their weak bargaining power.

But economists such as Baumol, Galbraith, and Sylos argue that this is a simple reasoning that does not stand to close scrutiny. They argue that one should analyze the effect of monopolistic organizations on productivity and growth instead of output and price. They contend that the size of the firm under perfect competition would be very less but in monopoly and other imperfect market structures, the size of the firm is generally

large. There is no denying the fact that innovation through Research and Development (R&D) is positively related to the size of the firm. Therefore technical progress tends to be higher under monopolistic market conditions. Even in the short-run, the cost reductions are kept with the firm in the form of higher profits and wages. In the long run, it would result in reduction in price and increase in supply and the benefits would be passed on to the consumers. The implications of these arguments are clearly contrary to the Singer-Prebisch hypothesis.

8.6. Relevance of Singer and Prebish thesis in Developing Countries

It is argued by spokesmen of underdeveloped countries that international trade which had served as an engine of economic growth for the open lands in the 19th century is no more an engine of economic growth for them today. According to the less developed countries today they face unfavorable conditions which are very different from the favorable ones faced by the open lands in the nineteenth century.

Economists generally consider the terms of trade between developed and underdeveloped countries as equivalent to the terms of trade between industrial and primary products. The classical economists believed that the terms of trade would shift in the long term in favor of primary products and against manufacturer because primary products are subjected for diminishing returns where as manufacturers are subjected to increasing returns. With increased factor supplies, but unchanged technology, means that production frontiers will be more rapidly away the axis for primary products. On the supply side the growth of inputs would have an anti-trade bias in the less developed countries and a pro-trade bias in the developed countries.

In his well known work entitled "Towards a New Trade Policy for Development" Raul Prebisch maintains that there is long-run tendency for the prices of primary products to deteriorate relative to the prices of manufactured products. Because when compared to primary commodities the quality of the manufactured items improve tremendously over a period of time. This argument has. however, been rejected by Lipsey and Jacob Viner on the ground that it does not corroborate with empirical evidence.

Singer gives a different explanation of the deteriorating terms of trade of the primary products producing countries. According to Singer, the fruits of technical progress can either be retained by producer in terms of the high income or passed on to the consumer in the form of low prices. The fruits of technical progress in the underdeveloped countries have been passed on to the consumers in the developed countries in the form of higher incomes of producers Singer does not give any explanation in support of his argument.

As these countries are less organized, they compete among themselves for the export markets for their products and in the process give away a substantial part of their gain in productivity to the developed countries in the form of reduction in the prices of their exports. Even if there is no secular or long-term deterioration in the terms of trade of the developing countries, as the western economists concluded, mere wild fluctuations in the terms of trade of the developing countries exporting primary products would be sufficient to disturb the development process of these countries. Hence, as Singer and Prebisch suggested the only alternative for the developing countries to come out of this problem is to go for industrialization. Industrialization is believed to solve many teething problems of the developing countries.

In this connection, it should be noted that comparative advantage that the developing countries are believed to be enjoying in the production of primary commodities is not something sacred or God given. The comparative advantage may change over a period of time or it can be made to change by deliberate policy measures. America that once enjoyed comparative advantage in the production of industrial goods now lost it to Japan and also to the newly industrialized developing countries such South Korea, Taiwan. America now may enjoy advantage in service sector; tomorrow may lose it to some other countries. So comparative advantage is not permanent in the case of trading countries. Therefore the developing countries should strive to diversify their production structure in favor manufactured goods or value added agro-processed industries, or in favor of the service sector.

8.7. Reasons for Unfavorable Terms of Trade of Developing Countries

The reason given by Linder for the worsening terms of trade of underdeveloped countries is that import kills import-competing industry. He emphasizes the strategic role of scarcity of intermediate goods in underdeveloped countries in the deterioration of terms of trade of these countries in the long period. The lack of availability of the intermediate goods blocks the diversification and transformation of the economies of underdeveloped countries. Similarly the Engle's law states that the national income of a country rises, total expenditure as a proportion of national income incurred on the manufactured goods increases while that incurred on the agricultural products and minerals declines To the extent that the income elasticities of demand determine the value of exports and to the extent that the less developed countries grow food products in a world of growing per capita income, the demand for their exports grow more slowly than does the demand for manufactured goods.

The less developed countries, however, produce not only those goods whose income elasticity of demand is low but they also export products with high income elasticity of demand. If the underdeveloped countries can produce these goods more cheaply, exports can grow very easily. To this extent technological change in the developed countries seem to be biased against the less developed countries. Production of synthetic rubber, artificial silk, cotton, fertilizers etc in the developed countries causes deterioration in the terms of trade of the less developed countries as the dependence of the developed countries for raw materials on the less developed countries is reduced.

8.8. Conclusion

In this lesson, we focused our attention on the Secular Deterioration Hypothesis or Singer-Prebisch Hypothesis. The essence of the hypothesis is that the developing countries experience long-term deterioration in their net barter terms of trade. The major reasons for secular deterioration are stated to be differences in the income elasticity of demand for primary and manufactured products, reverse flow of the benefits of technical progress from the developing countries to the developed countries, commodity and factor market imperfections n the developed countries.

Because of the low-income elasticity of demand for primary goods when compared to that for manufactured goods, the demand for manufactured goods rises at a higher rate than that for primary products. Hence, the exports of the primary products of the developing countries rise at a lower rate than the exports of the manufactured products of the developed countries. As a result, there will be a deficit in the balance of payments of the developing countries leading to fall in the net barter terms of trade of the developing countries. But the western economists, citing empirical evidence on the secular deterioration hypothesis, reject the hypothesis of the long-term deterioration in the terms of trade of the developing countries.

Policy makers in the developing countries mainly rely on using the more developed trading countries to maintain the demand for raw material exports from their countries, while taking appropriate steps to prevent the price of industrial goods which underdeveloped countries import, from rising. But. these have failed in preventing the terms of trade either from fluctuating or from deteriorating according to changes in international market conditions. More recently, the oil producing countries have succeeded in improving their terms of trade by restricting output and raising the export prices of oil substantially. While other developing countries would also like to take similar measures to improve their terms of trade, cartels for other commodities arc not likely to meet the same success as the OPEC because close substitutes are available for other raw materials.

There may be fluctuations in the terms of trade of the developing countries, but there is no systematic trend of deterioration. Nevertheless, mere fluctuations in the terms of trade are capable of disturbing the economic development of the developing countries. Hence, the developing countries are advised to go for industrialization. Industrialization is expected to solve many teething problems of the developing countries. Since, comparative advantage is not permanent, it can change or it can be made to change by deliberate policy measures. Hence, the developing countries instead of specializing in the production of primary commodities should reallocate their resources in favor of the production of industrial goods, or for the development of the services sector.

8.9. Technical Terms

1. **Secular Deterioration Hypothesis:** Singer and Prebisch propounded the concept. It refers to the long-term deteriorating trend in the net barter terms of trade of the developing countries.
2. **Income elasticity of demand:** Income elasticity of demand is defined as the proportionate change in the quantity demanded of a commodity due to proportionate change in the price of that commodity.
3. **Market Imperfections:** Market imperfections refer to a commodity or factor market situation where there are elements of monopoly, duopoly, oligopoly or monopolistic competition.
4. **Technical Progress** : Technical progress refers to a situation where fewer factor units are required to produce the same level of output or more output is produced with the same units of factors of production.
5. **Ratchet Effect** : It refers to a situation where prices of agricultural commodities lag behind the prices of industrial commodities during different phases of business cycles.

8.10 Self Assessment Questions

1. Explain the importance of Secular Deterioration Hypothesis
2. Analyze the differences in the income elasticity of demand among the countries.
3. Write about the impact of technical progress on terms of trade
4. Examine the impact of market imperfections on terms of trade
5. Elucidate the relevance of Singer and Prebisch thesis in developing countries

8.11. Reference Books

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LESSON - 7

Tariffs Quotas and Non-Tariff Barriers

10.8 Reference Books

10.0 Objectives:

After studying this lesson, you should be able to

- Understand the meaning of Tariff, import quotas and Non-tariff barriers
- Analyze the various types of tariffs, quotas and other Non-tariff barriers
- Evaluate the concept of Optimum tariff
- Make comparison between tariffs, quotas and NTBs
- Asses the role of Trade (restrictions) interventions in promoting economic development

10.1 Introduction:

Tariffs and quotas are the two chief methods of intervention of domestic industry. In this lesson we are going to analyze types of trade interventions in detail. 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 customs duties.

10.1.1 Meaning and Objectives of Tariff:

Tariff also called Customs duty, tax levied upon goods as they cross national boundaries usually by the government of the importing country. The words tariff, duty and customs can be used inter changeable. A tax imposed on imported goods and services. Tariffs are used to restrict trade, as they increase the price imported goods and services, making them more expensive to consumers. A specific tariff is levied as a fixed fee based on the type of item (e.g.,$ 1000 on any car). An advalorem tariff is levied based on the items value (e.g. 10% of the car value). Tariffs provide additional revenue for governments and domestic producers at the expense of consumers and foreign producers. They are one of several tools available to shape trade policy.

Investopedia Explains Tariff – Governments may impose tariffs to raise revenue or to protect domestic industries from foreign competition, since consumers will generally purchase foreign produced goods when they are cheaper. While consumers

are not legally prohibited from purchase foreign produced goods, tariff make those goods more expensive, which gives consumers an incentive to buy domestically produced goods that seem competitively priced or less expensive by comparison. Tariffs can make domestic- industries less efficient, since they are not subject to global competition. Tariffs can also lead to trade ware as exporting countries reciprocate with their own tariffs on imported goods.

Governments typically use one of the following justifications for implementing tariffs: 1) to protect domestic jobs. If consumers buy less-expensive foreign goods, workers who produce that good domestically might lose their jobs. 2) To protect infant industries. If a country wants to develop its own industry producing a particular good, it will use tariffs to make it more expensive for consumers to purchase the foreign version of that good. The hope is that they will buy the domestic version instead and help that industry grow. 3) To retaliate against a trading partner. If one country doesn't play by the trade rules both countries previously agreed on, the country that feels jilted might impose tariffs on its partner's goods as a punishment. The higher price caused by the tariff should cause purchases to fall. 4) To protect consumers. If a government thinks a foreign good might be harmful, it might implement a tariff to discourage consumers from buying it.

Objectives of Tariffs:

Tariffs may be levied either to raise revenue or to protect domestic industries, but a tariff designed primarily to raise revenue also may exercise a strong protective influence, while a tariff levied primarily for protection may yield revenue. Gottfried Von Heberler in the Theory of International Trade (1937) suggested that the best way to distinguish between revenue duties and protective duties (disregarding the motives of the legislators) is to compare their effects on domestic versus foreign producers.

If domestically produced goods bear the same taxation as similar imported goods, or if the foreign goods subject to duty are not produced domestically. And if there are no domestically produced substitutes towards which demand is diverted because of the tariff, then the duty is not protective. A purely protective duty tends to shift production away from the export industries and into the protected domestic industries or other industries producing substitutes for which demand is increased. On the other hand, a purely revenue duty will not cause resources to be invested in industries producing the

taxed goods, but it will divert resources toward the production of those goods and services upon which the additional government receipts are spent.

From the standpoint of revenue alone, a country can levy an equivalent tax on domestic production(to avoid protecting it) or select a relatively small number of imported articles of general consumption and subject them to low duties so that there will be no tendency to shift resources into industries producing such taxed goods (or substitutes for them). If one the other hand, a country wishes to protect its home industries, its list of protected commodities will be long and the tariff rates high political goals often motivate the imposition or removal of tariffs. Tariffs may be further classified into three groups- transit duties export duties and import duties.

10.1.2 **Classification of Tariffs:** Tariffs are classified in a number of ways:

I On the basis of purpose: Tariffs are used for two different purposes for revenue and for protection a) Revenue tariff b) protective Tariffs

Under these heads the following types of tariff duties are levied:

a) Advalorem duty,

b) Specific duty,

c) Compound duty

d) Sliding scale duty

II 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

2. Double column tariff: Under these heads the following types of tariff duties are levied

a) General and conventional tariffs

b) Maximum and Minimum tariffs

3. Multiple or Triple column tariffs

III On the Basis of Retaliation

There are two ways to levy import duties on the basis of retaliation

1) Retaliatory tariffs
2) Countervailing duty

10.1.3 Types of Tariffs:

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." 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.

3) **Advalorem Duty**: The most common type of duty is the advalorem 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 percent, 50 percent and so on.

4) **Specific duty**: Specific duties are levied per physical unit of the imported commodity, as Rs X per T.V , as Cloth per meter etc. ,as oil per liter, as fertilizers per ton etc.

5) **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 advalorem 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.

6) **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.

7) **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 nondiscriminatory 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.

8) **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 setting the rates under trade agreements.

9) **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 changed 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.

10) **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 more favored nation) minimum tariff rate is imposed. On the other hand maximum tariff rate is imposed on imports from the rest of the countries.

11) **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 as the maximum rates mentioned above. Similarly, the intermediate rates are maximum 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.

12) **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.

13) **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.

10.1.4 **The concept of Optimum tariff**: 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 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 maximizes a country's welfare is called the optimum tariff".

Determination of Optimum Tariff: The optimum level tariff of 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

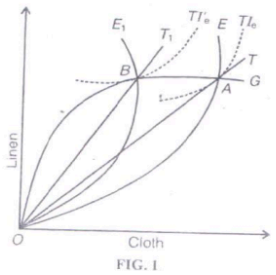


FIG. 1

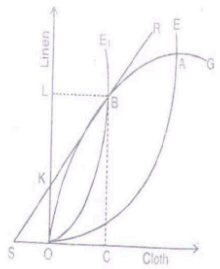
Explanation: Given these assumptions, the optimum tariff is explained with the help of Fig-1 when OE is the offer curve of England and OG is the offer curve of Germany. TI_e is the indifference curve of England. Under Free Trade, the terms of trade between the two countries are given by the ray OT from the origin. Consequently, they are in equilibrium at point 'A' where their offer curves intersect each other. Suppose 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'_e trade indifference curve which is above the TI_e trade indifference curve at the free trade situation 'A'. Thus the tariff that maximizes 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".

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.

10.1.**5 The Measurement of Optimum Tariff:**

In order to measure the optimum rate of tariff Kindleberger suggested the formula, given as $T_o = 1/(e-1)$ where T_o is the optimum tariff rate and e is the point elasticity of the offer curve of other country. The measurement of optimum rate of tariff can be explained with the help of Figure. OE is the offer curve of England and OG is the offer curve of Germany. A is the original point of exchange and B is the point of exchange under tariff. Let B be the point of optimum tariff. The tangent drawn to OG at B measures the slope of the offer curve at point B. It meets the horizontal axis at S. Thus optimum tariff at B is OS/OC. As OC = LB, the optimum tariff can be written as OS/LB. Since the triangles SOK and BLK are similar the optimum tariff can be written as



T_o = OS/OC = OK/KL ----------(1)

But KL = OL – OK ----------(2)

Also OK/KL can be written as 1/(KL/OK) -----(3)

Using (2) in (3) 1/[(OL – OK) / OK] ----------(4)

Again (4) can be written as 1/[(OL / OK)-1] . (5) However, OL/OK is the elasticity of offer curve at point B. Hence the optimum rate of tariff is given as:

$$T_o = 1/[(OL/OK) - 1] = 1/ (e-1) \text{ ---------- (6).}$$

10.2 Import Quotas:

Import quota is a protectionist device to restrict the supply of a good or service from abroad. Under an import quota, a fixes 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.

10.2.1 **Meaning and Objectives:**

An import quota implies a fixed quantity or value of a commodity that has been allowed to be imported in the country during a given period of time. In practice, quotas may be fixed either in terms of the physical volume or monetary value of imports or a combination of the two. Further, the time period to which quotas apply varies from country to country, the longest being a year, and the shortest a month. Quotas assigned in quantitative terms are referred to as direct quotas and those expressed in value units implying exchange control are called indirect quotas.

Objectives:

1. To regulate imports in an effective manner.
2. To check imports in order to correct an adverse balance of payments.
3. To protect domestic industries from severe foreign competition.
4. To maintain and stabilize domestic price level restricting imports inflows.
5. To retaliate against countries resorting to restrictive devices like import quotas and to strengthen a country's bargaining power by limiting import demands.

6. To check speculative imports in anticipation of tariff legislation through allocation of quotas

Quotas, in fact, are recognized as an emergency device and to be very effective should be promptly enforceable. A quota system is, therefore usually administered by the executive body rather than by parliamentary Law. (Gupta, K.R. International Economics p.215)

10.2.3 **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. 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.

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.

3. **Bilateral Quota:** Under this quota system, quotas are fixed by some agreement with one or more other countries. Heberler calls them agreed quotas.

4. **Mixing Quotas:** 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 quotas of raw materials to be imported are fixed in quantity by the government.

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.

10.2.4 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. Usually, quotas fix a rigid quantitative limit on imports. Thus they are harsh and inflexible in their operation. In case of tariffs, on the other hand, no such rigidity lies. A tariff is rather mild and flexible in its restrictive influence.
2. In their impact, generally import quotas are absolutely protective. A tariff however, need not prove absolutely protective. Under tariffs, the commodity can freely enter on payment of duties. Thus, the superiority of a quota over a tariff lies in the certainty of its restriction of imports.
3. In its protective effect, however, the quota system provides protection to old inefficient firms as it generally favors established importers in giving licenses, tariffs shelter the domestic market from foreign competition.
4. Under a tariff, it's probable effect upon price would be reasonably clear, but its impact on the quantity of imports will be uncertain. In the case of an import quota, its effects on the quantitative restriction would be explicit, but its impact on the prices will not be very certain.(Krause walter, International Economics, p.139)
5. Tariffs permit the market force of supply and demand to operate freely. Quotas, however, by fixing a maximum limit on supply inhibit the free play of market forces. As against tariffs, however, quotas introduce a wholly arbitrary new dimension in foreign trade of an imposing country. Thus quotas involve greater consciousness in the value judgments than tariffs.
6. Under quotas domestic price would increase more than under tariffs, because when the quantity imported is fixed under the quota, any changes in demand and supply in the domestic market or world market have to be adjusted, not through changing import quantities but rather through altered prices.
7. When tariffs are imposed, the rise in price is absorbed partly or fully by the state as revenues. Thus the revenue effect of tariffs is favorable to the state. Most quotas, however, fail to bring any revenue to the government.

8. Further, importers under a quota system are placed in a monopoly, like position and as results of rising prices are able to reap high profits, called quota profits.

10.3. Non-Tariff Trade Barriers (NTBs):

Non-tariff Barriers 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 favor of home goods.

10.3.1 **Meaning and Objectives of NTBs**

NTBs are found to affect many exporting countries particularly exports of developing countries will be subject to considerable NBTs. In many cases, serious impact of NBTs is observed. Despite reduction in average tariffs in industrial Countries, increased application of NBTs to the import of manufactured goods is observed. Particularly such NBTs are applied to imports of labor intensive goods and other products in which developing countries have comparative advantage.

Objectives;

(1) To protect domestic industries from foreign competition by restricting imports.
(2) To save the country's foreign exchange for importing essential raw materials, capital goods and other important items.
(3) To discourage the import of Luxury goods.
(4) To stabilized and main taint the interned price level by regulating imports.

10.3.2. **Classification of NBTs;**

(NBTs) Non-Tariff Barriers are distortions to international Trade. There are varied device which have originated in recent decades to restrict imports. They are usually classified as under;

1). Quantitative Trade restrictions are import quotas, tariff quotas, Voluntary export restraints (VERs) orderly marketing arrangements or agreements (OMAs) multi fibred arrangements (MFA), etc.

2) Fiscal Measures relate to export or production subsidies, export credit subsidy or tax concessions on exports, exports tax, government procurement, anti-dumping duties, countervailing duties, tied aid, etc.

3) 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 produces 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.

4) Others include bilateral trade agreements dumping, international commodity agreements, international cartels, etc.

10.3.3 **Types of Non-Tariff Barriers (NBTs);**

A brief study of the main types of barriers follows in this;

1. **Voluntary Export Restraints**: 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 of imports may be set in terms of quantity, value or market share. VER's 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.
2. **Export Subsidy**: An export subsidy is a government grant given to an export firm 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 subsidized 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.
3. **Countervailing Duty**: a countervailing duty is an import duty or tariff imposed by an importing country to raise the price of a subsidized export product to offset its lower price.

4. **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.
5. **Customs Valuation and Classification**: Often custom officials value imports at a higher price above the specified tariff rate for goods. Further, various commodities are described in the customs list and separate tariff rates are prescribed for each category. Such procedures restrict imports because they make them dearer and non-competitive in the local markets. They are meant to create uncertainty among importers.
6. **Import Licensing Procedures**: Many countries adopt complicated and expensive import licensing procedures to restrict imports. Import licensing are often auctioned to the highest bidders. 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.
7. **Local Content Regulation**: 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.
8. **Technical Barriers:** Technical barriers are of various types which restrict imports. They include health and safety regulations, sanitary regulations, industrial standards, labeling and packaging regulations and so on. Such regulations impose additional costs on foreign suppliers of goods in order to restrict their imports.

10.4 **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 Developing countries 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.

2. **Improving Balance of Payments**: Trade restrictions by developing countries help in improving their 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.

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.

4. **Increase in Productivity**: When direct foreign investments are allowed under trade restrictions, Developing countries 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 specialization 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 labor force in developing countries.

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 check-posts 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 developing countries.

7. **Self-Reliance**: Import restrictions are the most important means to overcome economic dependence and achieve industrial self-reliance for developing countries.

By protecting domestic industries and establishing import-substitution industries, increasing capital formation through larger saving, investment and profits, improving balance of payments and reducing foreign debt, restrictions help developing countries to achieve the goal of self-reliance.

10.5 **Summary:** The experience of many developing countries in their early phase of development suggests their preference for trade restrictions useful for development. Out of all quotas are more preferable than tariffs. Tariffs are generally less protective than quotas because they cannot fully restrict imports from abroad despite heavy tariff duties. The Non-tariff barriers are favored by governments to protect consumers, producers and economies from foreign competitions.

10.6 **Technical Terms:**

1. Revenue tariff
2. Protective tariff
3. Single column tariff
4. Tariff quota
5. Unilateral quota
6. Export Subsidy
7. Countervailing duty
8. Optimum tariff
9. Specific duty
10. Optimum tariff Formula

10.7 **Self Assessment Questions:**

1. Explain the various types of tariffs.
2. Explain the optimum tariff Formula with suitable diagram
3. What is an import quota? How does it differ from a tariff?

4. In what respect tariffs and quotas are equivalent in their nature?

5. What do you mean by non-tariff barriers? Explain them briefly?

6. Write notes on; VERs, Export Subsidy, Countervailing Duty

10.8 **Reference Books;**

1. Ellsworth,P.T. The International Economy,

2. Kindleberger,C.P. International Economics

3. Ray and Kundu,International Economics

4. Gupta, K.R. International Economics

5. Krause Walter,International Economics

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LESSON - 8

Theory of Interventions

9.0 **OBJECTIVES:**

After studying this lesson you should be able to

- Understand the need for intervention of to government in economic development of the Nation
- Know the types of Interventions and its importance.
- Evaluate the situation of the Developing Countries and the need of Intervention.
- Identify the Countries and not having government intervention in economic activities.
- Compare the countries intervention situations and non-inter vented positions.

9.1 **INTERDUCTION:**

A trade policy of placing no restrictions on the movement of goods between countries is known as the policy of 'free trade' such a policy permits the flow of international (commerce) Trade in its national environment, free of artificial impediments. Classical economic it's like Adam smith; Ricardo etc. were enamored of the policy of free trade, as a reaction against mercantilism dominating England and other continental countries in the 16th and 17th countries. They argued that free trade. Was economically advantageous or the following counts. First (1) free trade results in efficient allocation of available resources across the trading nations and

ensures Pareto optimality. Pareto optimality is a bliss situation where it is impossible to increase the production of any commodity without decreasing the production of other commodities. Secondly (2) World production of every commodity is maximized. (3) Countries can consume beyond the national production possibility frontiers. (4) Through free international trade, the consumers get larger basket of commodities to choose among. (5) International commodity market will tend to be more. Competitive and the element of monopoly and oligopoly will get dissolved.(6) International differences in the read reward of factor of production get narrowed down and there will be a tendency toward the equalization of their prices across the trading nations. Nevertheless, there are equally convincing arguments against free trade also after the Great Depression by the countries of the world. (1) Under the system of free trade the underdeveloped countries suffer very much in competition with the advanced countries. Free trade policy in India adopted by the British government has proved that the one-time flourishing industries of India were completely wiped out due to foreign competition. On the continent o Europe also the people knew the dangers of free trade and they hastened to erect strong tariff wall to protect their industries. (2) On account of economic interdependence in implementing free trade policy many governments experience political handicaps, especially during wartimes hence, for maintaining political independence, it was thought desirable to seek economic independence with the abandonment of free trade. (3) Countries cannot allow free of injurious and harmful products, hence trade restrictions become necessary. (4) Free-trade lead to cut threat competition in the world market, so that, exporters resorted to dumping, which no government can allow beyond a limit, thus restriction became inevitable. (5) Free entry of goods produced lay powerful combines inflicts a permanent injury on the economic interests of a country. Hence restrictions on such items were thought inevitable. (6) Backward countries have to protect their infant industries and hence cannot adopt the policy of free trade. (7) The production and exports of certain commodities particularly primary commodities will have very little forward and backward linkages and hence countries that concentrate in the production of such commodities will never develop. In view of these limitations of free international trade, sauce economists advocate intervention or protection in international trade.

9.2 **Arguments for Intervention**.

Heberler has divided the arguments for intervention into two groups economic and non-economic. Let us discuss and analyze these arguments thoroughly for state intervention.

9.2.1 **Economic Arguments for intervention.**

These Economic arguments usually given in favor of protection. The desire to accelerate the pace of economic development of the developing countries and to raise the standard of living of the poor gave arguments for protection in the 1930 to 1946 we discuss these one by one.

9.2.1.1 **Terms of Trade Argument;**

For correcting disequilibria's can be used as an instrument for making the terms of trade more favorable to the economy. The terms of trade can be improved lay making foreigners pay whole or part of the tariffs. For, the imposition of tariff duty will lead to a rise with price of the importing country and a fall in the price of the exporting country and if the demand for the commodity is elastic, there the price in the exporting country will tall to a greater extent. Thus the burden of tariff duty is borne by the exporting (foreign) county Hence, tariff duty moves to more favorable terms of trade for the importing country. This will however, depend upon the extent to which the price rises in the importing country and the extent to which it will fall in the exporting country.

If tariff duty is imposed, the price will rise in an importing country and fall in an exporting country. In the demand for the commodity of the exporting country is elastic, its price will fall to a greater extent. If the demand for it is elastic, small rice in the price will lead to a greater fall in demand. If the supply of the commodity is more elastic, the price will to a lesser extent. But if the domestic supply is in elastic, then the price will rise to a larger extent.

9.2.1.2 **Bargaining (or) Retaliation Argument**

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 (1) tariffs as a weapon for bargaining may lead to retaliation on the part of the other country, thereby harming both the countries. (2) Vested interests may be created in the country which may be so powerful that they may not allow reduction in tariffs and reciprocal bargaining (3) retaliation may lead to economic sanctions between countries and rivalry (4) it may lead to the shrinkage of world trade.

9.2.1.3 **Anti-Dumping measures Argument:**

Protection or Intervention is also advocated as an anti-dumping measure. 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 pieced 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.

9.2.1.4 **Diversification of Industry Argument**:

Intervention or protection is advocated by list and other economists to diversity the industries of a country, when there is unbalanced economy as a result of excessive specialization. Excessive specialization leads to overdependence of a country on other countries. This is dangerous, politically and economically. Politically in times of war, imports from foreign countries become difficult and people have to suffer hardships. Economically there is a danger of serious economic dislocation in case adverse circumstances affect these few industries on which the country is dependent. Thus in order to bring about a harmonious and balanced growth of all industries and self- sufficiency it is necessary to bring about a diversification of industries through protection or intervention.

This argument seems to have merits of its own in these days of tension when it advocates rational self- sufficiency. However, it has been criticized on the following counts; a) All the countries, even highly industrialized countries like USA and former USSR do not possess all types of natural resources and in adequate quantities to be self- sufficient. Thus, there is practical difficulty for any country to be completely self-sufficient. b) It cuts at the very root of the principle of comparative cost advantage and relative specialization as a basis of international trade. c) Complete isolation is not possible in the modern world. d) Hence, the diversification argument in favor of protection is weak. Further, it should be noted that protection in any case should not mean complete abandonment of international economic relations.

9.2.1.5 **Infant industry Argument:**

Infant industry argument is the oldest and the most accepted argument for protection. It was formulated by Alexander Hamilton in 1790 and was popularized by Fried rich List in 1885. Infant industries require protection in the early stage. For an infant industry operating costs during the transition period are high. As such it cannot complete with established foreign exporters. This is particularly true of a country that is attempting to initiative industrialization. By imposing a tariff on import the domestic price is therefore, rose sufficiently to allow the high costs of domestic producers to maintain themselves.

In fact, almost every industrialized country has had to protect its industries against foreign competition for temporary period so as to enable it to consolidate its position. And now economically backward countries to protect their industries in the early stages to enable them to grow their full stature without any mishap.

However, the exponents of the infant industry argument emphasized that protection should be removed immediately after it has performed its functions of “nursing”. In this regard, “nurse the baby, protect the child, and have the adult”. It wall known saying. It is also held that protection should not be given indiscriminately but only to those infant industry, which have potentialities to develop fast and become self-financing and efficient is the long run. An infant industry which have does not such natural and other facilities and advantages to grow deserves no protection, as it will be an unnecessary curb on general welfare to impose a bended on the economic waste. It protection is given further. It would mean permanent protection which would again be a waste. In India the sugar industry is a case of such protection.

List, therefore, advocated a policy of discriminating protection. For protection does not provide any incent us to the industry to economize. Because it puts a premium on inefficiency it should not be given only to those industries which are capable potentially of becoming viable units.

Further, the infant industry argument is not against free trade. It advocates protection temporarily only in the initial stages, so that all countries should themselves fully and the volume of trade is maximized. Once the industry becomes mature enough, protection should be withdrawn.

Criticism;

Though its theoretical validity cannot dispute, the infant industry argument is opposed by economists on an a priori basis or empirical evidence.

(1) It is difficult to decide correctly if an infant industry deserves protection.
(2) Once protection is given, if it is found unsound, vested interests are created and it becomes almost impossible to withdraw it.
(3) All sorts of industries begin to claim protection once this basis of infant industry is admitted. The result may be political corruption.
(4) An infant is always an infant. Thus it is rare that protection will be given up once it is offered. Protected industries tend to become negligent and depend more and more up on state assistance. “Even when the infant becomes a powerful giant, he is unwilling to relinquish his teething ring”.
(5) Ellsworth hotels that if a nation really possesses natural advantages, then it would automatically develop industries whether there is protection or no protection. Hence, protection is not really necessary.
(6) Prof Robbins holds investment in the protected industries is only justified if the industry yields a compound rate of interest at the prevailing rate.

Despite these criticisms, however, we may conclude that under certain assumptions the infant industry argument does hold water. It cannot be denied that protection can speed up industrialization through encouragement to newly started industries.

9.2.1.6 **Sunset Industries Argument;**

This is very recent argument for protection which has emerged in Europe from the 1970s onwards, some established labor-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 reequip and regain competitiveness”. In the absence of protection, it will lead to displacement of labor 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.

9.2.1.7 **Socially important (or) Key industries Argument;**

For rapid economic development, a country should have a stable and sound industrial structure. To achieve this, it must develop its key and basic industries like iron and steel, heavy chemical, metallurgical etc. Protection is there for inevitable for the development of such key industries like iron and steel, heavy chemical etc. There is no dispute over this argument because the development of key and other socially important industries under tariffs is one of the principal aims of trade policy in a country.

9.2.1.8 **Employment Arguments;**

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 intern generates employment in other industries development upon this import-competing industry and may even speed to import substitution industries. According to proof Heerlen, unemployment in one single industry can be imports provided the demand for its products is not completely elastic and its products compete with similar imported protects. But this does not mean unemployment will dampish.

9.2.1.9 **Balance of payments Argument;**

This is the most important argument for protection or intervention, especially by Developing countries. 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-sustention and export sectors, in turn raises employment and income in the country. And the increase in income increases saving and the supply of learnable funds which reduce the interest rate and encourage investment. Consequently, more employment and income are generated.

Compared to Devaluation, as a means of correcting disequilibrium in the balance of payments, tariff seems to be better, since unlike devaluation it will not have any side repercussions. Devaluation may not only deteriorate the terms of trade but generally speaking it may not be a very effective measles in the case of underdeveloped countries. This is because their demand for foreign goods is inelastic, so that the volume of imports will not fall and this will not boost up exports proportionately as their exports also have less elastic demand. In these circumstances, import is to be checked by tariff dirties to improve the balance of payments situation. Import controls through tariff duty only suppress disequilibrium if they one retained on a long-term basis.

9.2.1.10 **Factor Income Redistribution Argument;**

Another argument, particularly related to developing countries is to redistribute income. There is a large labor- intensive sector with low incomes and a small capital-intensive sector with high income. 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 labor-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 rises because the producers find it difficult to retain works from moving to the other sector. Eventually, both the industries pay equal wages. Thus tariffs lead to equalization of factor incomes in the long-run growth process. But, in reality, factor incomes are never equalized. 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 lump sum redistributions of income without causing misallocation resources by taxing the high-income groups and giving the proceeds to low-income groups through various incentives and providing productive employment opportunities.

9.2.1.11 **Revenue Argument;**

Protection is also advocated on fiscal grounds. Tariffs are a very good source of revenue to a government, especially because it is the foreigners who pay tariff duties. In India, customs duties have been a very productive source of revenue.

Tariffs are regarded as a superior source of revenue on the following counts:

(1) Tariff kill two birds with one stone as these provide revenue to the state as well as protection to home industries.

Free trade protagonists, however, argue that these two objectives of tariffs, viz, to provide revenue and protection, are inconsistent. Tariffs which yield more revenue will afford less protection and vice versa.

It may be pointed out here that the yielding of revenue is a by- product and not the basic consideration of imposing tariffs. Thus, tariffs usually provide protection plus some revenue.

(2) Usually, tariff duty will be borne wholly or partly by the foreigners. The relative share of the tariff paid by the foreign exporters and domestic importers is determined by the elasticity of supply of the former and the elasticity of demand of the latter. In the demand

is perfectly elastic and the supply is perfectly in elastic, the full amount of tariff will be borne by the foreigner and in the case of a relatively elastic supply, a major part of the tariff duty will be paid by the where demand for import is in elastic, and the supply of the foreign exporter is elastic, a large part of the tariff will be by the domestic importer.

9.2.1.12 **Domestic distortion Argument;**

The domestic distortion argument for tariff is based on the fact that the domestic factor and commodity market in an economy do not work 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 prevents it from operating under perfectly competitive conditions, the government should use a tariff to cancel partially the effects of such distortions.

9.2.1.13 **Strategic Trade policy;**

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, tab-communication, computers etc are capital-intensive R&D (Research and 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.

But this policy has imitational, (1) It is difficult to lay down criteria and pick up industries which have large external economies. (2) It is also a problem to lay down appropriate policies so as to develop high-tech industries. (3) Almost all developed nations adopted strategic trade policies simultaneously. Consequently their efforts to protect their industries are neutralized. So they may not be able to benefit much from protection. (4) Even if a country is successful by following this policy, it is at the cost of other a retaliatory policy.

9.2.1.14 **Conservation of National Resources Argument;**

Charily, pattern and Jevons have argued that protection is essential to conserve the national resources of a country. This argument is particularly applicable to countries which export minerals and other essential raw materials. For instance, Jevons feared that England's export of coal would cause exhaustion of her coal-fields. Therefore, coal exports should be restricted by imposing high export duties. The same argument is applicable to the union of South Africa with her gold mines and to India with her manganese and mica deposits. If a country exhausts its exportable raw materials, it loses the benefit of manufacturing. Therefore, by restricting exports through high tariffs national resources should be conserved for the benefit of the country itself.

9.2.1.15 **The "pauper labor" 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 by imposing tariffs.

This argument is based on two unrealistic assumptions. (1) The prices of goods are determined by wage rates along and (2) Labor is the only factor of production. But the fact is that goods are manufactured by a Combination of factors. Labor is combined with land and capital. It is only in the labor intensive goods that low paid labor can have a cost advantage over high-paid labor. I 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. Infect, high wages may be due to high Productivity. So in a country where labor 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.

The stapler Samuelsson theorems does not support the pauper labor argument. It simply reveals that production can lead to redistribution of real income in favor. But the real wage of labor 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 labor argument.

9.2.1.16 **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 money. This saying by Robert Ingersoll is wrongly attributed to Abraham lincen. This argument is illogical because if every country were to follow this rule, there would be no international trade and the benefits of it's would not accrue to any country of the world. A country buys goods from another country because the latter offers them at lower prices them the domestic manufactures. Buying goods produced by domestic manufactures would, therefore, mean loss to the consumers. Moreover, in international trade domestic currency cannot be used for making payments to foreigners. Infect, 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.

9.2.1.17 **Expanding Home market Argument:**

This is a Corally 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.

9.2.1.18 **Scientific, Tariff, or Equalizing costs of production Argument:**

Protection to domestic industries is advocated for equalizing costs of production or prices of domestic and foreign products. If for example the domestic costs are higher than foreign price by 25 percent, an import duty of 25 percent should be imposed on the foreign products. Thus the prices of both domestic and foreign products are equalized and they can complete on equal terms. According to Taussig this argument "has an engaging appearance of fairness. It seems to say no favors, no undue rates." But strictly speaking its " apparent fairness, is only skin deep.", according to Ellsworth, If the domestic 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 favor of inefficient producers; against efficient ones, and against the general body of consumers."

9.3 **Non-Economic Arguments:**

So far we have presented the economic arguments for intervention or protection. These economic arguments seek to promote economic welfare of the people. But economic welfare is not the sole objective of life. Non-economic objectives like political, social and cultural are also important. Such non-economic arguments may make it desirable t pursue activities that are not economically efficient. There are three important non-economic arguments for intervention.

9.3.1 **Defense Argument:**

A country should adopt the policy of protecting its industries from the standpoint of national defense. 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," Defense 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 defense. In particular, protection for national defense to self-sufficiency in arms and ammunitions and other related industries. But complete self-sufficiency as an argument for national defense does not carry much force for I 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.

9.3.2 **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. The 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 Heberler "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 of preserve the special ethos of the nation.

9.3.3 Patriotism or National 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.

9.4 Need for Intervention in Developing Nations:

Developing countries like India have just and special reasons to intervention in the policy of protection.

(1) In these countries the infant industry argument assumes for greater importance than in developed countries. Thus, selective or discriminating protection may be suggested as a remedy for certain economic ills and for the industrial growth of these countries.

(2) Again these countries being agricultural countries their economics cannot be developed at the desired speed unless due protection is given to a number of prospective enterprises. Pigou writes: "The base for protection with a view to building up productive power is strong in any agriculture country which seems to possess natural advantages for manufacturers. In such a country the immediate loss arising from the check to the exchange of native produce for foreign manufacturers may well be out weighted by the gain from the manufacturering power is developed." In short , in order to allow backward agricultural countries to develop their industrial potentialities rapidly, foreign competition should be inevitably minimized through protection.

(3) The advanced countries should not resent or retaliate the tariffs of developing countries, as the nature of import restrictions of these countries differs from that of the developed countries. Tariffs are imposed by these countries mainly to utilize the available foreign exchange earnings for the import of capital and commodities essential for economic

development, rather than for having luxury articles. Due to demonstration effects marginal propensity to import being very high in these countries, import restrictions become inevitable in the interests of the economic expansion of the country.

(4) Restrictions by the developing countries are just a traditional step to increase trade; as such, in the long run, foreign trade considerably increases with an increase in income and economic expansion of these countries which help in strengthening the economy of the world as a whole.

(5) From the point of view of practical politics also, protection may become inevitable. In a world torn with strife and power politics, every nation is forced to have a solid defence self-sufficiency and full-employment. These cannot be achieved without evolving a tariff policy suited to the needs of the country. Most of the developing countries have secured their independence very recently. They must have a strong defence and diversification of their industries through protection.

(6) Protection is a very important method, amongst many others, of planned economic development. Planning implies control and regulation of economic activities in the desired directions. Free trade policy is a Laissez-Fair policy which is ruled out under planning. Since most of the poor countries of the World have launched upon planning for economic development, protection becomes inevitable for its successful implementation.

9.5 Intervention Devices:

When a country resorts to the commercial policy of protection, it can adopt many alternative devices or their combinations. The important methods (or Sources) of interventions are 1. Tariffs,2.Quotas 3. Exchange control 4. State Trading 5. Dumping

6. Subsidies 7. Commodity agreements 8. International Cartels.

9.6 Summary:

Free trade according to the Doctrine of Comparative cost is considered to be the first best policy. Yet the special problems of some countries particularly the developing ones make the free trade an unsuitable policy. Economies are recognizing the need for government intervention in the economic activities of the country. There are many convincing economic and non-economic interventions or protection arguments. Intervention or protection is an established creed of modern trade policy.

9.7 **Technical terms.**

(a) Terms of Trade (b) Retaliation

(c) Anti-dumping (d) Diversification

(e) Balance of Payments (f) Domestic distortions

(g) Strategic of trade policy (h) Conservation

(i) Scientific tariff (j) Preservation.

9.8 **Self Assessment Questions:**

1. Give arguments in support of the policy of intervention or protection
2. Examine critically the infant industry argument for protection in the context of a developing country
3. Discuss the need for intervention in an underdeveloped country
4. Explain the importance of Non-economic interventions in giving support to the developing economies
5. Write a short note on the following

a) Terms of Trade
b) Retaliation
c) Anti-dumping
d) Diversification
e) Balance of payments
f) Domestic distortions
g) Strategic trade policy
h) Conservation
i) Scientific tariff
j) Preservation

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LESSON - 9

Economic effects of Tariffs on National Income, output and Employment

11.0 **Objectives:** After reading this lesson the student should be able to

- Know the meaning of effects of tariffs on National income ,output and Employment
- Understand various types of economic effects of tariffs
- Study the importance of effects of tariffs on National income, output and employment
- Observe how tariffs are affected on economic activities in the country.

11.1 Introduction: The economic effects of trade restrictions are numerous. Although we shall concentrate our analysis on tariffs and quotas, the same general kinds of effects are produced by other forms of trade restrictions. Tariffs have a variety of effects which depend upon their power to reduce imports. The effects of a tariff may be analyzed from the standpoint of the economy as a whole which is known as the general 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."

Tariffs are a schedule of custom duties levied upon the imports. In a broader sense, however, tariffs include all customs duties; import duties, export duties and transit duties. Amongst these, as a restrictive measure, import duties are the most common. Tariffs can affect import volume, prices, production and consumption. They also affect the terms of trade, the balance of payments etc. The various effects of tariffs have been discussed in this lesson. For this purpose, we may draw diagrams of partial equilibrium and General equilibrium frame work relating to the market for a particular commodity. Here we have framed some assumptions. Basing on the assumptions the concepts are analyzed.

11.1.1 Economic effects of Tariffs:

Tariffs have a variety of effects which depend upon their power to reduce imports. The effects of a tariff may be analyzed 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 goods 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".

11.2. **Effects of a Tariff under Partial Equilibrium.**

The effects of a tariff under the 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 is 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.

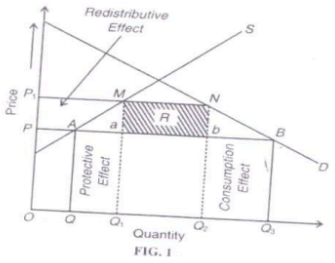

FIG. 1

11.2.1 **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 OQ_3 quantity at OP price.

1

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 QQ to QQ_1. So that the total demand for the commodity is QQ_2 which is partly met by domestic supply QQ_1 and partly by importing $Q_1 Q_2$. Thus imports have fallen from QQ_3 to $Q_1 Q_2$ as a result of the price effect. The protective, consumption, revenue and redistribution effects of a tariff can also be illustrated by fig. 1

11.2.2 **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, QQ_3 quantity of the commodity is imported at OP price. With the imposition of the import; duty of PP_1, imports are reduced to $Q_1 Q_2$. 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 analyzed 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.

11.2.3Consumption Effect: The consumption effect o 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 QQ_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 QQ_3 to QQ_2. Thus Q_3Q_2 (=QQ3-QQ_2) is the consumption effect of the tariff. This in turn, leads to a net loss of consumers' satisfaction equal to the area PP_1 NB. 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 QQ_3 .

11.2.4. **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_1x Q_1Q_2 or the rectangular shaded.

11.2.5. **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_1 MA. 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_1 NB. 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_1 MA measures the redistributive effect of the tariff which goes to the domestic producers of the commodity.

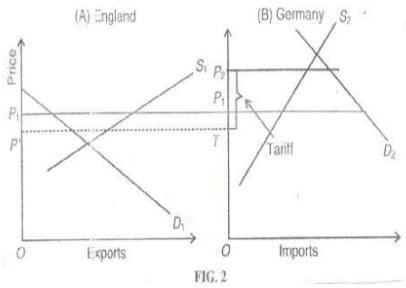

FIG. 2

FIG.2

11.2.6. **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^1 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 QQ_2. The government gets 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.

11.2.7 **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 (kA) shows, S_1 andD_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_2 T 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 in Panel (A), as a result of the tariff. Of the total tariff of P_2 T, a

larger amount P_2P_1 is borne by the importer country Germany and P_1 P 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. It 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.

11.2.8 **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 developed 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 simulated by tariff removal". He, therefore, favours the removal of tariff on "sluggish, fat and lazy" domestic industries in the interest of the economy.

11.2.9. **Income and Employment Effect.**

The Income effect rfers 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 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.

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 45^0 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. If the increased level of income OY_1 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.

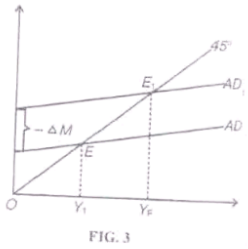

FIG. 3

FIG.3

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 *begger-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.

Tariff as a means of correcting disequilibrium have been, however, criticized severely as follows:

1. It brings equilibrium through a contraction of foreign trade.
2. It thus inhibits the advantages of a large and expanding world trade and prosperity.
3. It adjusts the equilibrium without mitigating the root causes of disequilibrium.
4. Sometimes, the imposition of new or higher tariffs may aggravate disequilibrium in case of a country already experiencing a surplus in its balance of payments. In such a case, new or higher tariffs will tend to intensify the existing maladjustment in the balance of payments.
5. Since the imposition of tariff duties does not necessarily imply a reduction in the value of imports, the effect of a tariff on the balance of payments cannot be very certain.

11.3. Effects of a Tariff under General Equilibrium

The effects of a tariff under the general equilibrium are studies in the case of a small country and a large country.

11.3.1 Effects of tariffs in a Small Country:

The effects of a tariff under the general equilibrium analysis are analysed in terms of of the consumption effect, the production effect, and the terms of trade effect.

Its assumption. 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 ad linen which they exchange.
(iv) Cloth is exportable commodity of England and linen is its importable commodity.
(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.

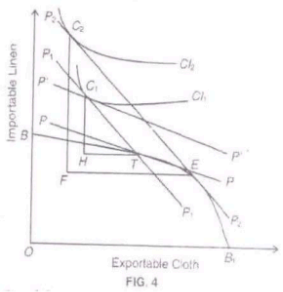

FIG. 4

FiG.4.

Explanation: Given these assumption, the imposition of an import tariff raises the domestic price of the importable commodity linen while the price of the exportable commodity cloth remains constant. Since England is a small country, it cannot influence the world price of linen.

Production and Consumption Effects. To explain the production effect of a tariff, take England which produces two commodities cloth and linen but specializes; 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 EF 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_1 P_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 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.

11.3.2 **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 Effect:

As the tariff –imposing country is large; its trade with the rest of the world affects world prices.

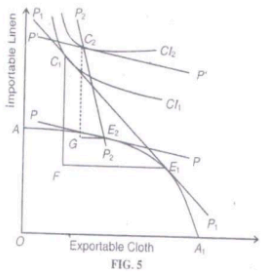

FIG. 5

FIG.5.

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 EE_1 of cloth and 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 move to C_2 on the world price line P_2P_2 and the domestic price line P^1P^1 (parallel to PP). In this situation, C_2 is on the higher community in difference curve CI_2 than CI_1, which shows increase in welfare of the tariff-imposing country.

These new production and consumption 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 specialization 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 be 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 specialization 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 clearly 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.

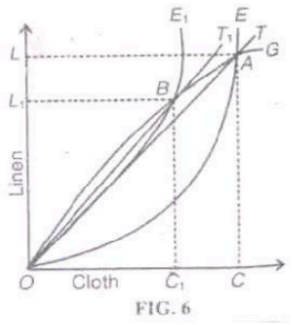

FIG. 6

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 IE to OE_1 and England offers less cloth for Germany's linen. This changes the terms of trade from OT and 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.

11.4 **Summary:** In conclusion, thus we may follow Kindleberger in saying that tariffs can stimulate production, raise revenue, redistribute income and re-allocate resources within and between countries, expand employment and bring about a favorable balance of payments position. But the same can be achieved in a better way with weapons of economic policy other than tariffs. Moreover, the other devices have no such undesirable effects of tariffs like distorting the collocation of resources and limiting consumption. For instance, direct taxes and transfer are

better means of redistributing income than tariffs, as these least disturb production and consumption. Similarly, international transfers are superior to tariffs for improving the terms of trade. To solve the problems of unemployment and balance of payments, deficits, appropriate monetary and fiscal policies are much better than tariffs. Nevertheless, tariffs continue to prevail strongly. This is because of emotions are self-interest. In fact, as Kindleberger puts it, producer interests in particular are politically more powerful than producer and consumer interests in general.

11.5 **Technical terms:**

1. Price effect

2. The protective effect

3. Revenue effect

4. Terms of trade effect

5. Consumption effect

6. Income and employment effect

7. Redistributive effect

8. Balance of payment effect

9. Optimum tariff

10. Developing country

11.6 **Self Assessment Questions:**

1.What are tariffs? Explain the effects of a tariff on the terms of trede under general equilibrium analysis

2.Critically examine the effects of tariffs on (a) the level of employment,(b) income distribution

3.Describe the partial equilibrium diagram the price, protective, consumption, revenue and redistribution effects of a tariff?

4.Explain the Optimum tariff Formula?

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LESSON -10

MEANING AND COMPONENTS OF BALANCE OF PAYMENTS

13.0 Objectives

The lesson explains the different dimensions relating to the balance of payments (BOP), and various aspects relating to the disequilibrium in BOP. After reading this unit, you will be able to :

- know about the meaning and definition of BOP
- identify the different items and accounts in the BOP
- analyze the concepts of equilibrium and disequilibrium.
- examine the measurement and determination of disequilibrium
- elucidate the different kinds and causes of disequilibrium and

13.1 Introduction

A nation's international Balance Of Payment (BOP) is a quantitative summary of a country's international financial transactions over a given period of time. It reveals various aspects of a country's international economic position The international BOP of a country informs the government about the international financial position of the country. It also helps the government in taking decisions on monetary and fiscal policies on the one hand and on internal trade and payments issues on the other. The BOP also is used to determine the influence of foreign transactions on the level of national income. In the case of underdeveloped country, the BOP shows the extent of dependence of the country's economic development on the financial assistance given by the developed capital leading countries. In the case of advanced countries, the BOP can show the extent to which its citizens are living 011 their past exports.

However, the greatest importance of the study of international BOP lies in its serving as an indicator of the changing international economic position of a country. The BOP is the economic barometer which, if properly handled by economic analysis, can be used to appraise a nation's short-term international economic prospects, to evaluate the degree of its international solvency, and to determine the appropriateness of the exchange rate of country's currency Many with other relevant factors, the trends in and position of the balance of international payments of a country significantly affect the economic policies of the government.

13.2 Meaning and Definition of BOP

In simple terms, the balance of international payments usually referred to as the BOP. which is a systematic and summary record of a country's economic and financial transactions with the rest of the world, over a period of time The IMF publication BOP Manual describes the concept as follows:

The BOP is a statistical statement for a given period, showing transactions in goods and services and income between an economy and the rest of the world. Changes in ownership and other changes in that country's monetary gold. Special Drawing Rights (SDRs). claims on and liabilities to the rest of the world, unrequited transfers counter part entries that are needed to balance in the accounting sense any entries for the foregoing transactions and changes which are not mutually off setting.

Generally we treat balance of trade and balance of payments as synonyms. But there is difference between the two concepts Balance of trade takes into account only those transactions arising out of the exports and imports of the visible items, it does not consider the exchange of invisible items such as the services rendered by shipping, insurance and banking etc BOP takes into account the exchange of both visible and invisible items Hence, the BOP represents a better picture of a country 's economic and financial transactions with the rest of the world than the balance of trade. The transactions that fall under BOP are recorded in standard double entry book-keeping, under which each international transaction undertaken by die country will result in a credit entry and debit entry of equal size. As international transactions are recorded in double entry book keeping, the BOP must always balance i.e. the total amount of debits must equal the total amount of credits. Some times, the balancing item errors and omissions must be added to balance the BOP A detailed examination of the constituent items in BOP would make the meaning and measurement of disequilibrium clear.

13.3 Constituent Items and Different Accounts in BOP

The balance of payments and the accounts statement of a country , are generally maintained in the form of a balance sheet with the help of double entry book keeping principle The format of the BOP given below shows the important transactions that enter into it.

Table - 13.1: Hypothetical example of Balance Of Payments

	Credits / Receipts			Debits/payments	
	TRADE OR CURRENT ACCOUNT				
(I)	Visible exports. (export of goods)	850	(6)	Visible Imports (import of goods)	970
(2)	Invisible exports (export of services)	140	(7)	Invisible Imports (imports of services)	110
	TRANSFER OR CAPITAL ACCOUNT				
(3)	Unrequited receipts (gifts, indemnities etc.. received from foreigners)	70	(8)	Unrequited payments (gifts, indemnities etc.. paid to foreigners)	40
(4)	Capital receipts (loans from, capital repayment by or sale of assets to foreigner)	140	(9)	Capital payments (Loans to capital Repayments to purchase assets from foreigners).	80
(5)	Errors and Omissions		(10)	Errors and Omissions	
	Total :	1200		Total :	1200

Broadly, the items in the BOP are vertically classified into credit and debits and horizontally divided into trade/current and transfer/capital items. Any item in the credit side gives monetary claim to the residents of the reporting country over the residents of other countries. On the other hand, debit transactions give services transfer.

Capital account items include capital flows and unilateral transfers. Usually current account covers transactions such as exports and imports of goods and services which relate to the current year's national income. In other words, such payments or receipts do not create any future claims over foreigners nor cancel the existing claims. As against this capital account covers transactions which create or cancel claims over foreigners. When a country borrows from other countries, it has to pay interest on the loan every year and repay the loan after some years It means some countries give loans to others, it buys claims over others. It is customary to treat capital account transactions compensatory or adjustment transactions. It may be observed that the table presents BOP accounts in the double entry book keeping form and now let us discuss the different items in the BOP in detail.

Item 1 consists of the reporting country's receipts from the exports of goods and item 5 shows the country's payment for imports of goods. Item 2 indicates receipts of the reporting country, from exports of current services of foreigners during the reference period, for the services like insurance & banking, transport services, tourism, interest loan etc and dividend Similarly, item 6 contains payments made by the reporting country for similar services rendered to them by foreigners. The difference between items 1 and 5 is known as the balance of visible trade, while the difference between items 2 and 6 is termed as the balance of invisible trade. The difference between the value of goods and services sold to foreigners by residents of the reporting country and the value of goods and services purchased from foreigners by them is termed as balance of trade. These transactions are also considered as current account transactions because these give rise to or use up national income.

The transfer items or capital account items consists of short term and long term capital transactions. In this account item 3 represents unrequited receipts They are payments from some persons or body from other countries to persons or body in the reporting country for which no present or future quid proquo is demanded. Gifts, indemnities etc.. constitute such unilateral transfers. These may be gifts from persons of native country residing abroad and they send money to their Kith and kin which need not be repaid. Other governments may send gifts on charity, which again need not be paid back. Payments of similar kind from the reporting country are enumerated under item 7 as unrequited payments. As they are insignificant items, they may be mentioned in capital account or in current account.

Item 4 contains capital receipts which take different forms. Receipts from long term claims like equity claims and debit claims, sales from short term claims against deposits. Similarly, payments towards purchase of long term equity deposits and others and purchase of gold from other countries are considered as item No. 8 and items 5 and 10 of errors and omissions sometimes also capital payments. The last called unrecorded transactions arise from the possibility that certain transactions may escape identification. For example, payments or receipts arising largely from unrecorded movements of short-term claims may be listed under unrecorded transactions.

13.4 Equilibrium and Disequilibrium in the BOP

The country under reference is exporting goods worth Rs.850 crores and importing goods valued Rs.970 crores. The deficit in the balance of visible trade is or the order of 120 crores. But this does not measure disequilibrium in BOP, Part of the deficit is financed by a surplus of Rs 30 crores in the balance of invisible trade. The deficit in balance of trade ultimately is of Rs 9 Crores. Even this does not measure disequilibrium. Turning to transfer balance, it shows a surplus of Rs 30 crores on account of unrequited transfers. Further, on account of capital flows, a surplus of Rs 60 crores exists. Thereby surplus in balance of transfers is Rs 90 crores, the total receipts equal the payments. The deficit in trade balance is exactly met out of surplus in transfer balance. Similarly any deficit in transfer balance may be met bv a surplus in trade balance.

Balance of payments is said to be balanced, if the total amount of debits equals the total amount of credits. In the case of double-entry system, it is always balanced. But if the sense is maintained on a single entry system, then the total amount of debits may differ to total amount of credits. It is also possible that some errors in the evaluation of exports and imports may occur. It adds a balancing item to the BOP of a country, entitled errors and omissions. Here the fact should be noticed that the BOP always balances in an accounting sense does not mean that a country never faces BOP difficulties It is far from the reality. In real and actual sense the BOP of countries are always in disequilibrium

13.5 Measurement and Determination of Disequilibrium

The international BOP of a country may be in balance in the sense of equality between total payments and total receipts. More generally, however, it shows either a surplus or deficit. By a deficit or surplus in the BOP is usually meant gold movements plus accommodating capital movements. Hence, to measure and determine the actual extent of disequilibrium in the BOP all the transactions in the BOP has to regroup into autonomous and accommodating.

The autonomous transactions in the BOP take place regardless of the size of other items in the BOP They occur independently by the market mechanism i.e.

supply and demand forces. The category of autonomous receipts would include all merchandise exports, services, gifts, normal capital flows determined by interest and profit rate (differentials). For example, sale of securities in a foreign country and purchase of securities with the proceeds of the former in the reporting country because the yield 01 the second is higher than the first one is an example of autonomous capital receipts.

On the other hand the accommodating transactions are those which are necessary to finance the deficit or surplus in the BOP. They may be made by private persons or public authorities. They may be automatic or planned and foreseen. They take place because other items in the BOP leave a gap to be filled in. Accommodating receipts include depletion of foreign currency reserves of the reporting country, in order to meet increased import demand. Receipt of funds by the reporting country from foreign governments, either by way of loan or gift for securing foreign exchange to meet the existing imbalance in the BOP. This may be made clear with the following statement.

Table - 13.2: Autonomous and Accommodating Transactions

SI. No	Receipts		SI No	Payments	
I)	Autonomous Receipts		3)	Autonomous Payments	
	a) Autonomous exports (Visible & Invisible)	960		a) Autonomous imports	1080
	b)Autonomous unrequited receipts	20		b)Autonomous unrequited	25
	c) Autonomous capital receipts	40		c) Autonomous capital Payments	40
2)	Accommodating receipts		4)	Accommodating payments	
	a)Accommodating exports	30		a)Accommodating exports	
	b) Accommodating unrequited receipts	50		b) Accommodating unrequited payments	15
	c)Accommodating capital receipts	100		c)Accommodating capital payments	40
	Total receipts :	1100		Total payments	1100

From the above statement it is found that the balance of autonomous trade shows a deficit of Rs. 120 crores (960-1080) and the balance of autonomous transfers shows a further deficit of 5 crores (20+40 - 25+40). The combined deficit in the BOP is the value of Rs.125 crores and to meet this deficit the balance of accommodating items shows a surplus of Rs. 125 crores. Thus, the deficit is wiped out. So the BOP deficit is measured by the deficit in autonomous trade and transfers. This must be matched by accommodating finance.

The above analysis reveals that a nations international BOP is in equilibrium when the autonomous supply of and the autonomous demand for foreign exchange are equal. A disequilibrium in a country 's external BOP appears either as a surplus or deficit. The BOP disequilibrium is favorable when the difference between the autonomous supply of and the autonomous demand for foreign exchange is positive. When this difference is negative, the disequilibrium is unfavorable.

13.6 Different Kinds of Disequilibrium

Broadly speaking, the main kinds of disequilibrium in the BOP are cyclical, secular structural, actual or potential, short term and long term and fundamental.

Cyclical disequilibrium takes place due to the occurrence of trade cycles. To know that the rate of growth of income and output is not fixed. Over a long period, changes in income have been characterized by short-term boom and depressions. Cyclical disequilibrium occurs either because the patterns of business cycles in different countries follow different path or because income elasticities of demand for imports in different Countries are different.

Secular disequilibrium in the BOP arises from changes in an economy as it moves from one stage of growth to another or due to the economic development of a country. It may be caused by a number of factors such as capital formation, technological change, growth of population, growth of markets and changes in resources etc.

Similarly structural disequilibrium at the goods level occurs when a change in demand or supply of exports or imports alters a previously existing equilibrium or when a change occurs in the basic circumstances under which income is earned or spend abroad, in both cases without the requisite parallel changes else where in the economy. Therefore, we can say that it arises from structural changes in the demand and or supply conditions of exports and / or imports, the deficit in the BOP may be actual or potential. Actual deficit is measured by the extent of accommodating finance required to meet the deficit. There are no restrictions imposed. Potential deficit is measured by the amount of accommodating finance which could have been necessarily to be provided without the use of controls. Such controls range from depreciation of the exchange rate, imposition of import restrictions, following of suitable internal policies. Further, time element is important in measuring disequilibrium in balance of payments.

The deficit may be of short run or long run nature. Some times, any deficit may be met by inflow of short-term funds attracted by interest rate differentials. If circumstances which attracted capital are temporary, the capital may outflow, and the deficit would appear.

Hence, any deficit may have to be viewed with reference to their variations over a long period to eliminate random and seasonal fluctuations. It is this deficit which is of serious nature, which deserves the attention of any government to be equilibrated.

When a disequilibrium in the BOP continued for a long time and there is no expectation now or in the future, that the new factors revealed in die BOP are likely to disappear, it is defined as a case of fundamental or permanent disequilibrium. Actually, most of the non-oil developing countries, including India are facing the problem of fundamental **or** permanent disequilibrium in their balance of payment accounts.

13.7 Causes for Fundamental Disequilibrium in BOP

The causes of disequilibrium differ from country to country, and time to time within a country. The main causes are economic . political and social in nature. In addition to the above mentioned structural, cyclical and monetary causes, the other economic causes are developmental programmes, income and price effect, elasticity of demand for exports and imports and growth of population.

A number of developmental programmes are going on in the developing countries. These programmes require import of huge quantities of capital goods, technical know - how and essential raw materials. When imports are greater than exports, it will lead to a disequilibrium in the BOP of the country

Similarly, due to economic development, per capita national income increases. With the increase in income, the demand for import increases too, the extent depending on the marginal propensity to import. The higher the marginal propensity to import, the more will be the deficit in the BOP of an underdeveloped country, other things remaining the same. Again in underdeveloped economies, a high marginal propensity to consume is combined with comparatively inelastic products which will lead to rise in die comparative price level. It encourages imports and discourages exports and that results in a deficit in the BOP.

The less developed countries specialize, mainly in the export of agricultural goods for which the income elasticity of demand is very low. In contrast, the more developed countries specialize, in the export of industrial goods for which the income

elasticity of demand is comparatively higher. As the national income of a country rises, proportionate expenditure on manufactures increases and that of food articles decreases. Therefore, with the increase in world income, exports of advanced countries increase more than those of the underdeveloped countries and the later run into deficits in their BOP.

Population is growing at a faster rate in less developed countries like India and China than in more developed countries. Increase in population leads to an increase in internal demand. Consequently, imports of goods increases and the capacity to export decreases. In over populated countries marginal productivity of labour is almost zero or may be negative. This will create a disequilibrium in the BOP of less developed countries.

Certain political factors also produce BOP disequilibrium. Factors like political instability, war or changes in the world trade routes, could also produce disequilibrium in BOP. Similarly social factors like changes in the tastes, preferences and fashions may effect imports and exports and there by affect the BOP.

13.8 Conclusion

The balance of payments is a record of economic transactions of a country with the rest of the world. It is divided into current account and capital account. Generally the capital account works as adjusting account. To measure and determine the actual extant of disequilibrium, the items in the BOP has to be regrouped into autonomous and accommodating transactions and the disequilibrium is measured by the amount of accommodating finance. The disequilibrium in the BOP is of different types and among diem most significant one is fundamental or permanent disequilibrium for which there are so many economic political and social causative factors.

13.9. Technical Terms

1. **Balance of Payments** : The BOP of a country is a systematic record of all financial transactions of a country transacted with the rest of the world countries during a specific period of time.

2. **Autonomous Transactions** :Transactions made by individual firms and corporations on their own accord without considering the BOP items.

3. **Accommodating Transaction**: Transactions specifically assigned to adjust the other items in the BOP.

4. **Current Account Transactions**: The independent free land flow transactions of the individuals firms and corporations during a specific period of time.

5. **Cyclical Disequilibrium :** Disequilibrium caused due to the operation of international trade cycles among the world countries.

13.10. Self Assessment Questions

1.Distinguish between balance of trade and balance of payments.

2. Discuss the difference between current account and capital account.

3. Examine the different kinds of disequilibrium in BOP.

4. "The balance of payments is always in balance"- discuss.

5. What are the causes of disequilibrium in the BOP of a country?

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(Prof. M. Sundara Rao)

LESSON - 11

THE PROCESS OF ADJUSTMENT IN THE BALANCE OF PAYMENTS

14.0. Objectives of the Lesson:

The important objectives of this lesson are:

1. To explain the need for adjusting the Balance of Payments
2. To analyze the Expenditure Reducing Policies.
3. To describe the Expenditure Switching policies
4. To highlight the Different approaches relating to devaluation.
5. To examine the various direct control measures

14.1. Introduction

Generally the balance of payments equilibrium occurs when a surplus or deficit is eliminated from the balance of payments that is a normal phenomenon. Though several external economic variables influence the balance of payments and give rise to disequilibrium, domestic economic variables like national output rate are more significant causative factors. Normally the expart of goods and services may lead to a surplus or a deficit in the balance of payments. Therefore, it is important to study how a country can adjust its trade flows and capital flows and capital flows to have equilibrium in its balance of payments. In fact, even under a system of floating ex rates the adjustment mechanism is important since, in practice, disequilibrium often occurs. A surplus in the balance of payments generally causes no problems. But a deficit balance of payments often leads to difficult problems in economic policy. In this lesion, we will examine the main policy measures by which equilibrium in the balance of p can be achieved. We will also examine the working of the adjustment mechanism

14.2. Process of Adjustment in the Balance of Payments Disequilibrium

In the economic sense, balance of payments equilibrium occurs when a surplus or deficit is eliminated from the balance of payments. But normally, such equilibrium is not found. Rather, it is the disequilibrium in the balance of payments that is a normal phenomenon. Though several external economic variables influence the balance of payments and give rise to disequilibrium, domestic economic variables like national output and national spending, money supply, exchange rate, and interest rate are more significant causative factors.

If national income exceeds national spending, the excess amount (saving) will be invested abroad, resulting in capital account deficit. Conversely, excess of national spending over national income causes borrowings from abroad which would push the capital account into a surplus. Disparity in national income and national spending influences the capital

account via the current also. If national output exceeds national spending the difference manifests itself in export causing current account surplus. The surplus is invested abroad which means a capital account deficit. The excess of national spending over national output leads to import. Deficit appears on the current account. The country borrows to meet the current account deficit and the borrowing results in a capital account surplus.

Increase in money supply raises not only the price level, but also exports turn uncompetitive and fall in export earnings in turn leads to a deficit in the current account. Similarly, the higher prices of domestic goods make the price of imported commodities competitive as a result of which imports rise and a deficit appears in the current account. If the currency of a country depreciates, exports become competitive a and export earning improves. On the other hand, imports become costlier. If as a result, imports are restricted, the trade account balance will improve but, if imports are not restrained, a deficit will appear on the trade account. In fact, the net effect depends upon how price-elastic is the demand for export and imports.

Any increase in domestic interest rate cause capital inflow in search of higher returns and the capital account turns surplus. The reverse is the case when the interest rate falls. However, disequilibrium becomes a cause for concern when it is associated with the current account because it represents a shift in real income; and also because adjustments on this account are not very easy. In fact, it is the balance of trade account that is largely responsible for the disequilibrium. If the balance of trade is surplus, its correction is not difficult; the surplus amount is used either for meeting the deficit on invisible trade account or may be invested abroad but, if the balance of trade is in the deficit zone and if the deficit is too large to be covered by the invisible trade surplus, a current account deficit will occur. Its correction is not easy, in so far as the autonomous and accommodating capital flows are not so smooth. Again, if deficit on current account continues to persist, the official reserves will be eroded. If the country borrows large amounts to meet the deficit, it may fall into a vicious debt-trap. This is why adjustment measures are primarily directed at correcting disequilibrium in the trade account.

14.3. Need for Continuous Adjustment in Disequilibrium of the BOP

For many countries, equilibrium in the balance of payments is one of the important goals of economic policy. The stress is no longer on automatic adjustments. How to achieve

external balance is viewed as one of the many problems for economic policy, we will examine the problem of how to achieve external equilibrium along with full employment. We will also say something about the general problem of achieving a number of objectives of policy given a certain set of instruments. In this guideline we shall first describe the main policy means at the disposal of a modern government and the way in which they work. For the time being, we exclude autonomous capital movements. Hence balance of payments, can be viewed as the difference between total domestic output and total domestic expenditure.

If total output is larger than total expenditure, the country will have a surplus in its balance of payments. Conversely, the country will have a deficit output equals expenditure the balance of payments will be in equilibrium. If a country as a deficit it can close the deficit in one or two ways: by reducing expenditure or by increasing output. It is often difficult to increase output in the short run, especially if the country has full employment. Therefore, the main method for reducing a deficit is usually an expenditure reducing policy.

A deficit can be cured by expenditure-reducing policies or expenditure-switching policies. We shall use this terminology and divide the policy instruments into these two main categories. The terminology suggests that expenditure switching could be substituted for expenditure reducing. This is not the case. Given constant output, expenditure- switching policies must involve some element of expenditure reduction in order to work, to put it more generally, to be effective, expenditure switching involves either an element of reduction in expenditure or an increase in output.

14.4. Expenditure Switching Policies

Expenditure-reducing policies are divided into two broad categories viz., monetary policy and fiscal policy. Monetary policies are in principle the same as under the gold standard though the spectrum of policies is now broader. Before the great Depression of 1930's fiscal policy was hardly used for this purpose. Now it has become an important policy weapon in connection with the growth of government expenditure, which occurred in most countries since the Second World War. Changes in interest rates and open-market operations are the most important instruments of monetary policy. To cure a deficit, the natural thing to do is to raise interest rates and sell bonds.

14.4.1. Monetary Policy Measures:

The effect of a tight monetary policy on investment depends to a large extent on the general economic situation. If the country is in a boom period, the result of an increase in interest rates depends to a large extent on the expectations of producers. If they expect the interest rate to fall after some time, they may postpone investments. In such a case the increase in interest may have considerable impact, and through multiplier effects lead to a reduction in the national income. Or it may act as a brake in an inflationary situation. monetary policy became quite discredited in the 1930s as it proved to be inefficient for domestic stabilization purposes during the great depression. Even after the second World War, in the late 1940s, many regarded it with suspicion. In the 1950s when the overriding problem for many countries was that of inflation, monetary policy, and new variants of monetary policy were put into practice. In an inflationary climate, investment returns were expected to be high.

To regulate the supply of money, through open-market operations, the central bank or buys bonds and securities. If it sells bonds, bond prices will be decreased and the effective interest yield will be increased. If the central bank wants to tighten the money supply, it sells bonds and other securities to commercial banks, insurance companies, households, etc. Commercial banks and other buyers of bonds will have to pay for them liquid money. The liquidity of the banking system falls and the availability of credit many decrease. The sale of bonds will also lead to a fall in their price and to an upward pressure on interest rates. The decrease in availability of credit, together with an increase in discounts, can have a negative influence on investment; producers may now simply find it impossible to borrow money. If this is so, investment will be curtailed. The possibility of influencing the availability of credit by open-market operations depends on the fact that commercial banks keep a certain ratio between their liquidity and their loanable funds.

Monetary policy was also put into practice during the1950s. An increasing amount of funds went to finance the purchase of consumer goods. This is so because of the fact that an increasing proportion of consumption in industrial centers consists of consumer durables. Central banks have, in times of inflationary pressure, been able to restrict lending for purposes of consumption by forcing banks to ask for higher percentage in down payment, by faster amortization, and by showing greater selectiveness in granting loans. Monetary policy has also proved to be a powerful instrument in the post-war period for correcting deficits in the balance of payments. An increase in interest rates and a decrease in the availability of credit can affect investment. A decrease in investment will, through a multiplier effect, lead

to a decrease in income and to a fall in imports. Policies that curtail consumption will also lead to a decrease in imports. So a tight monetary policy is one way of implementing a policy of expenditure reduction.

A neutral monetary policy will automatically work to curb deficit, because a deficit implies that payments by residents of the country are larger than receipts by residents. This however, presupposes neutrality from the central bank. It refuses to increase the money supply even if cash balances are being depleted. Residents can only deplete their cash holding by exchanging them for foreign reserves, and it is doubtful if the central bank has enough foreign reserves to be able to wait and let the self-correcting mechanism work it out. One should also remember that as cash holdings become more scarce, the interest rate increase. This will also work toward curing the deficit. If, for some reason, the central bank does not want to tolerate an in interest rates, it must increase the money supply, and the deficit is no longer self-correcting.

14.4.2. Fiscal Policy Measures:

Fiscal policy can also be used to reduce expenditure. It may be divided into two broad groups, depending on whether they are on the income or the spending side of the government budget. The most important instrument on the income side is a change in taxation. An increase in direct taxes will reduce household incomes. Part of this decrease in income may lead to reduction in savings, but part of it will most certainly lead to reduction of consumption and a decrease in imports. An increase in indirect taxes, for example of sales taxes, will produce the same effect. Here the effect on savings may be relatively smaller, as indirect taxes, as opposed to direct taxes, are seldom progressive. Many countries have also used taxes against investment in the post-war period, for instance in the form of a flat-rate tax on certain types of investments. More subtle ways in which fiscal policy is used to regulate investments are in the form of investment funds, which amounts to giving firms tax credits if they postpone investment. These means of fiscal policy have proved to be efficient in curtailing investment. A decrease in investment will, of course, through the usual multiplier effect, lead to a decrease in the national income and to a fall in imports.

Another form of expenditure-reducing policy is a reduction in government expenditure. A decrease in transfer payments will usually have an immediate effect on consumption. The groups benefiting from transfer payments are on the whole low income groups with a high marginal propensity to consume. A decrease in public consumption will lead to a fall in national income and imports. Fiscal policy can therefore be viewed as an

effective method of implementing an expenditure-reducing policy. It may be difficult for a government to increase taxes and keep expenditures constant, or to decrease expenditures keeping taxes constant. There is no doubt that total expenditure will decrease and imports fall, if it is possible.

The effectiveness of fiscal policy depends on the balance of the budget, if the government permits a deficit in the budget, it pursues an expansionary policy, and if it has a surplus, its policy is deflationary. The total effect of the budget depends not only on the sum of tax incomes and expenditure but also on the composition of taxes and expenditures. It is quite possible that a budget with a smaller deficit has a more expansionary effect on the economy than a budget with a larger deficit. To measure the total impact of the government sector on the economy, the deficit or surplus as well as the composition of the budget have to be taken into account.

Thus, it is clear that monetary and fiscal policies are the means of implementing an expenditure-reducing policy. If a country has a deficit in the balance of payments, it can pursue a tight monetary policy or a more restrictive fiscal policy. This will have a deflationary effect on the national income and lead to a fall in imports. It may act as a brake on the lease in imports. It will also have a positive effect on exports and on import-competing industries. As the level of activity fails, there will be a downward pressure on prices of factors of production. Wages may fail or, at least, be stable. This places the export-and import-competing industries in a more competitive position. An expenditure-reducing policy will therefore have a positive effect on the balance of payments In two ways. It reduces ports and it creates space for an expansion of exports.

14.5. Expenditure Reducing Policies

Expenditure switching policies primarily change relative prices. The main form of such a policy is a change in exchange rates, i.e. devaluation or a revaluation of the domestic currency. Direct controls can also be classified under the heading and are usually applied to restrict imports. Consumers will then try to buy domestic goods instead of imported ps. Hence direct controls can be viewed as a switching device. We shall, first concentrate on a discussion of devaluation.

14.5.1. The Elasticity Approach Relating to Devaluation

Devaluation is often used interchangeably with depreciation, and revaluation is often taken to be synonymous with appreciation. We will, however, make one distinction between

the two sets of terms. Deprecation means lowering the value with respect to other currencies, while devaluation means a lowering in value of currency with respect to the price of gold. The same holds for appreciation and revaluation. If, as is the case with the present monetary system, the price of gold is fixed, depreciation of one currency implies devaluation of the currency in question. There exists, however, one possibility where devaluation does not imply depreciation. This is the situation where all currencies lower their value with respect to gold by the same percentage. Then there would be worldwide devaluation. The price of gold would increase by the same percentage in ail countries but no currency would have been depreciated. For the time being we are concerned with only one country, and we will use the two sets of terms interchangeably.

The immediate effect of devaluation is a change in relative prices. If a country devalues ^by for instance, 20 per cent, it means that import prices increase by 20 percent. At the same time, import-competing industries will be in a better competitive situation. Exporters will receive 20 per cent more in home currency for every unit of foreign currency they earn. They can therefore, lower their prices counted in foreign currency and will become more competitive. By how much sales will increase abroad depends primarily on the foreign demand elasticities for their goods.

According to the traditional approach, the effects of devaluation on the balance of trade depend on elasticities. We shall be explaining this view. The core of the traditional view is contained in the Marshall-Lerner condition, which states that the sum of the elasticities of demand for a country's exports and of its demand for imports has to be greater than unity for devaluation to have a positive effect on a country's trade balance. If the sum of these elasticities is smaller than unity, a country can improve its balance of trade by revaluation. This condition is expressed in terms of a formula as follows:

$$dB = kXf(e_{1m}+e_{2m}-1)$$

where 'dB' is the change in the trade balance, 'k' the devaluation in percentage, 'Xf' the value of exports expressed in foreign currency, 'e_{1m}' the first (devaluing) country's demand elasticity for imports, and 'e_{2m}' the second country's (the rest of the world's) demand elasticity for exports from the devaluing country.

It is easy to see from the equation that the sum of the two elasticities has to be larger than unity, if devaluation is to be effective. What the effect of the price increase will be depends on the elasticity of demand for imports. The larger it is, the greater will be in the volume of imports. When the exporters, because of the devaluation, receive more for every unit of foreign currency they earn, they can lower their prices quoted in foreign currency.

When they can lower their prices, they should be able to sell more. By how much the quantity exported increases depends on the demand elasticity confronting the country's exporters. Again, it depends to a large extent on the type of goods the country exports as well as the market conditions. However, devaluation has some side effects.

Devaluation may lead to an inflationary impact on the economy. If a tight monetary and fiscal policy is pursued jointly with devaluation, the inflationary impact can be limited. Another consideration to take into account is the effect of devaluation on income distribution. It is often stated that real wages will fall because of devaluation. Then there will be a redistribution of income away from the labour class to the non-labour class. The effects on income distribution are, however, very complicated. It is difficult to state general results. Devaluation should result in a re-allocation of resources away from the sector producing non-traded goods and into the export and import competing sectors. In general the factors of production employed in the exports and import-competing sectors will benefit from devaluation. This holds especially true for factors used intensively in these industries. They should receive a higher real income. The result will also depend on the consumption patterns of labour or the specific factor of production in which we are interested.

14.5.2. Absorption Approach Relating to Devaluation

An alternative approach to the effects of devaluation formulated in macro terms is the absorption approach. Sidney Alexander first developed it in a famous paper publishers in 1952. It gives a useful complement to the traditional approach. The absorption approach runs in macro terms. Its starting-point lies in the fact that the balance of trade can be viewed as the difference between national income and total expenditure. That is:

$$B= Y-E$$

If total expenditure, or total demand is designated as total absorption, 'A', then we can write:

$$B= Y-A$$

Total absorption includes the demand created for all purposes. In other words, it includes demand both for consumption and for investment purposes. Using the simple national identity we say that:

$$A= C+I+G$$

Devaluation affects the trade balance by either affecting real national income, Y, or by affecting total absorption, A. Then we can write the change in the trade balance as:

$$dB=dY-dA$$

Total absorption can be decomposed into two parts. First, we say that any change in the real income will induce a change in absorption. To what extent absorption changes depends on the propensity to absorb, which we shall call c. Second, we can say that devaluation has a direct effect on absorption, depending, on the level of real income at which devaluation takes place. This effect is called the direct effect on absorption, or D.We can then write

$$dA=cdY+dD$$

Combining the above equations we get

$$dB= (1-c)\ dY-dD$$

The above equation is useful as it shows the three basic factors which are important for come of devaluation. It says that the effects of devaluation on the trade balance depend first on how devaluation affects the real income (Y), second on the propensity to absorb (c), and third on the effect on direct absorption (D). If there are unemployed resources when the country devalues, then production can expand in the short run. The expansionary process will start by the multiplier process. The extent to which exports will expand depends greatly on whether export prices in the devaluing country rise and on city of the rest of the World to absorb exports from the devaluing country.

The net effect on the balance of trade does not consist of the total amount of increase in reduction but, rather, the difference between this and the induced total absorption. This differences between increase in real production and real absorption can be called real hoarding. The effect on the trade balance is, then, equal to the amount of real hoarding which takes place in the economy. The propensity to absorb, or the propensity to hoard, is the important factor in this case for the effects of devaluation on the trade balance. As long as c is less than unity, some hoarding will occur, and hence there is a positive effect on the trade balance.

If c is larger than unity, then devaluation will have a negative effect on the trade balance, because the induced effects on absorption will be larger than the original effects on production. This case cannot be ignored. Devaluation will then have positive effect on national income. Workers who are employed at this time will probably have a high propensity to consume. Further, the expansion in income may have a positive effect on investment. Together these factors can make the propensity to absorb larger than unity. Devaluation will then have a negative effect on the trade balance. If the propensity to absorb is less than unity, devaluation is an attractive policy for a country in depression, because it will have a positive effect on the national income and improve the balance of trade. Thus

devaluation could have a positive effect on national income. This was probably the main reason, along with balance-of-payments considerations, for the series of devaluations undertaken in the wake of the depression of the 1930s.

14.6. Direct Controls

The word 'control' is often used in a larger sense to indicate not only quantitative restrictions and exchange restrictions but also to include fiscal measures such as taxes and subsidies and also tariffs. We explain briefly the effects of direct controls, i.e., quantitative restrictions and exchange restrictions. Direct controls can be divided into two groups: commercial controls and financial controls. To improve the balance of payments, commercial controls can be used to increase exports and to discourage imports. As there is very little that can be done to increase exports directly, commercial controls are usually used to restrict imports. If import restrictions are applied to a wide variety of goods, and if the demand elasticity varies between goods, it will be difficult to apply taxes efficiently. In such a case, the whole, or part, of the price increase will go to the importer. This is especially the case if the government only introduces quantitative import restrictions without an accompanying method for dealing with the rents or monopoly gains, which arise with such restrictions.

Quantitative restrictions can be combined with system of import licenses. The price mechanism may then be applied in a roundabout way. The licenses can be auctioned off by the government to the importers. Alternatively, the government might try to introduce a system of rationing jointly with the import restrictions and establish a quota system for the amount of every imported good the consumer can buy. Another way of implements direct controls is by the use of exchange restrictions. Under exchange restrictions exporters have to sell their foreign earnings to a central board. Importers have to buy foreign currency from the same board. If the government is successful in this undertaking it can hold complete control over foreign trade. In such case, the government can cure any deficit in the balance of payments by selling foreign exchange only to an extent that corresponds to export earnings.

The government can permit only desirable imports and not permit, for example, luxuries. Import restrictions in the form of foreign exchange restrictions will also create a divergence between domestic and foreign prices on imported goods. This will give an impetus to circumvent the restrictions. A black market will probably be created. The exporters will be tempted to sell their export earnings in the black market to obtain a higher price. Importers who are not able to obtain foreign currency legally may try to buy in this

market. Controls of foreign exchange dealings have to be policed very thoroughly in order to be efficient. To neutralize some of these difficulties the government may try to introduce a system of multiple exchange rates.

The aim of direct trade controls is usually to restrict imports. If imports are inelastic, such policy may also be viewed as an alternative to devaluation. It may also be a feasible solution in the short run. In the long run its effect may often be harmful because of the distortion of prices that it creates. Such price distortions may lead to harmful effects on the allocation of production and consumption. There is a degree of optimum trade intervention. Most countries, which apply trade restrictions, have usually passed this point. Direct trade controls can be quite a costly way of closing a deficit in the balance of payments.

14.7.Conclusion:

There are a number of measures available for correcting the BOP disequilibrium. They fall into two broad groups, namely, automatic measures and deliberate measures. The automatic measures are advocated by classical economists. According to the classical economists, any disequilibrium in BOP is corrected automatically without any corrective measures by the government. This method worked well under gold standard. The BOP disequilibrium may, however, be automatically corrected under the paper currency standard also. The theory of automatic correction is that, if the market forces of demand and supply are allowed to have free plans, in course of time, equilibrium will be automatically restored. As these conditions arc not completely prevail in any in the real world, such an automatic adjustment is not possible. Hence when there is a deficit in the BOP. Government has immediately to introduce deliberate corrective measures.

The various deliberate measures may be broadly grouped into monetary measures, trade measures and miscellaneous. Among the different monetary measures, the important are: monetary contractions, devaluation and exchange control. Under monetary contraction, the level of aggregate domestic demand, domestic price level and the demand for imports and exports may be influenced by contraction or expansion of money supply so that a BOP disequilibrium may be corrected. Contraction of money supply is likely to reduce the purchasing power and thereby, the aggregate demand . It is also likely to reduce domestic prices. The fall in the domestic aggregate demand and domestic prices reduces the demand for imports. The fall in domestic prices likely to increase exports. Thus the fall in imports and rise in exports would help to correct the disequilibrium.

Devaluation means the reduction of the official rate at which the currency is exchanged for another currency. A country with fundamental disequilibrium in the BOP may devalue its currency in order to stimulate its exports and discourage imports to correct the disequilibrium. Devaluation makes export goods cheaper and imports dearer. Exchange control is a popular method employed to influence the BOP position of a country Under exchange control, the government or central bank assumes complete controls over the foreign exchange reserves and earnings of the country. The recipients of foreign exchange, like exporters, are required to surrender foreign exchange for domestic currency. By virtue of its control over the use of foreign exchange the government can control imports.

Trade measures include export promotion measures and measures to reduce imports. Exports may be encouraged by reducing or abolishing export duties, providing export subsidy, encouraging export production and export marketing by giving monetary, fiscal, physical and institutional incentives and facilities. On the other hand imports may be controlled by imposing or enhancing import duties, restricting imports through import quotas, licensing and even prohibiting altogether the import of certain inessential items. A part from the above mentioned monetary and trade measures there are number of other miscellaneous measures like foreign loans, incentives for foreign investment, tourism development, incentives for inward remittances and import substitution to correct the deficits in the BOP of a country.

14.8.Technical Terms

Monetary and Fiscal Policy

Open Market operations

Devaluation

Deficit finance

BOP (Balance of Payments)

Direct controls

14.9. Self Assessment Questions

1. Discuss about the expenditure-Switching policies.
2. What are the policy measures involved in the Expenditure-Educing policies?
3. Give a note on the Balance of Payments as a policy problem.
4. Write about various direct control measures to correct the disequilibrium in the balance of payments of a country.

14.10.Reference Books

1. S.S. Alexander, 'Effects of Devaluation: A Simplified Synthesis of the Elasticities and Absorption Approaches' American Economic Review, Vol.49, March 1959.

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LESSON - 12

FOREIGN TRADE MULTIPLIER

15.0. Objectives.:

In this Lesson we discuss about the details pertaining to

* Determination of National Income in the closed economy
* Determination of National Income in the open economy.
* National Income and the Balance Of Payments
* The concept of Foreign Trade Multiplier
* The International Repercussions and Business Cycles

15.1. Introduction:

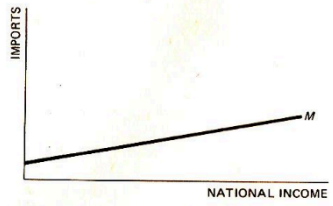
Having deficit or surplus in the balance of payments of a country is not at all desirable. If the country is having surplus there will be additional demand for the reserves of the country. Due to this wages and the prices will increase in the economy. Under the gold standard system this conditions leads decrease in exports and increase in imports and it will lead to equilibrium conditions in the balance of payments. The classical theory of balance of payments concentrates on brining changes in the macro economic variables to bring balance of payments balance. On the other hand the Keynesian analysis concentrates upon macro economic variables like-national income, investment etc.

The principle of multiplier says that if the marginal propensity to consume is greater than zero, an increment in investment will increase the income greater then the incremental investment ,through successive rounds of spending. When a closed economy is in equilibrium: Y= C+I =C+S. Where Y stands for national income, C for consumption, S for saving and I for investment. It is quite clear from the above equation that at equilibrium, investment must equal savings. That is: I=S. Equality between savings and investments is must for equilibrium because savings represent leakage from the income stream whereas income is an injection of income. When I=S, what ever leaked out of the income flow is made good by injecting an equivalent amount by way of investment. One of the Keynes's main contributions to economic theory was to describe how equilibrium in national income is created. As most students are familiar with the determination of national income in a closed economy, we will directly treat the case of an open economy.

15.2. The Import Function:

In a closed economy consumers could spend their incomes on consumption goods or they could save them. Total consumption could then be viewed as a function of the national income. This functional relationship can be expressed as: C= C(Y). Savings and consumption are both increasing functions of the national income. In an open economy consumers will also demand imported goods, and imports can be expressed as function of national income. We write the import function as M=M(Y). Imports are also an increasing function of income. We can illustrate the import function graphically as shown in figure 1 which shows that even as zero national income, something would be imported . As the national income increases, so do imports. A country's average propensity to import is defined as the total imports divided by the total national income, i.e, M/Y. The average propensity to import varies greatly between countries.

Fig-15.1 Import Function



The marginal propensity to import measure how much of a change in the national income is spent o imports. Using algebraic it is defined as ^M/^Y. If imports increase by 10 when the national increases by 100, the marginal propensity to import will be 0.1. If the marginal propensity to import is divided by the average propensity to import, we deduce the income elasticity of demand for imports. Expressed in algebraic this becomes (^M/^Y) (M/Y). The income elasticity of imports is defined under the assumption that all other things are equal, for instance that there are no changes in prices. If the demand for imports increases by 5 per cent when the income increases by 10 per cent, the income elasticity of imports equals 0.5. If a country's average and marginal propensities to imports equal, its income in elasticity of demand for imports is 1. If the marginal propensity to import is larger than its average propensity, this tends to increase the country's dependence on foreign trade, and if the opposite is the case, its foreign trade quota will fall.

15.3. The Determination of National Income in an Open Economy:

We will discuss how the national income is determined in an open economy. The difference between a closed and an open economy is that in the latter we have the possibility of foreign trade, i.e. of exports and imports. In an open economy we can write the national income identity as: Y+M=C+I+X. Where the left side of the expression shows the total supply, i.e. the sum of total domestic supply (Y) and imports (M), and where the right side shows the three ways total output can be used, i.e. as consumption (C), investment (I), or exports (X). In a closed economy we know that savings have to equal investment in equilibrium.

In an open economy we have to take into account that there can be a net inflow or outflow of capital. In an open economy we can therefore write the equilibrium condition as : S=I+X-M or S+M=I+X. If there is a change in any of the four variables, the change in the left side of expression must equal the change in the right side, as a condition for reaching a new equilibrium. Hence ^S+^M=^I+^X. Using the definitions of marginal propensity to save, s, and of marginal propensity to import, m, we can write ^S = s^Y and ^M=m^Y. Then we can rewrite equation as: (s+m) ^Y= ^I +^ X. Hence we get

$$\hat{Y} = \frac{1}{s+m} (\hat{I}$$

we can view the changes in investment and exports as the autonomous variable and see what the effects of change in, say, exports will on the national income. From equation we see that the effect of a change in exports on the national equals the change in exports multiplied by the expression I/ (s+m), which in out formulation is the foreign trade multiplier, which we shall call kf. Let us for moment assume that there is no change in investment, and see what the effect of an increase in exports will have some secondary effects on the national income, so that the increase in the national income will be larger than the original increase in exports.

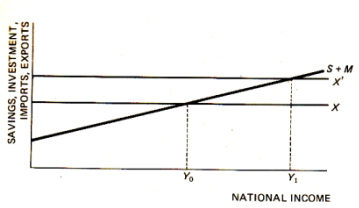
The foreign trade multiplier, or the export multiplier as it is sometimes called, works in exactly the same way as the ordinary investment multiplier. And increase in exports gives rise to an increase in income for the exporters and those employed in the export industries. They, in turn, spend more of their increased incomes. How much more they spend more of their increased incomes. How much more they spend on domestic goods depends on two leakages: how much they save and how much they spend on imports. The savings do not

create any new incomes. An increase in import spending does not create new incomes in the country itself, only in those foreign countries with which the first country trades. And it is the effect on the country's own national income with which we, for the moment, are concerned.

It is now easy to see that the larger the marginal propensities to save and import, the smaller will be the value of the multiplier. If the marginal propensity to save is 0.2 and if the marginal propensity to import is 0.3, the value of the multiplier will be 1/(0.2+0.3) = 2, i.e. an autonomous increase in exports of 100 will lead to an increase in the national income 200.The reason for the original increase in exports may be one of many. When the whole process has worked itself out, the increase in the national income becomes larger than the original increase in exports. How much larger depends on the value of the export multiplier, which depends in itself in a critical fashion on the values of the marginal propensities to save and import.

Figure 2 illustrates the export multiplier diagrammatically. The figure shows a saving-imports schedule, i.e. how much consumers plan to save and import at different values of the national income. This arrived at by adding an import schedule to the savings schedule. We assume, furthermore, to simplify the reasoning, that there is no net investment, so that exports are the only autonomous variable.

Fig-15.2 Expansionary Effect of Exports on the National Income

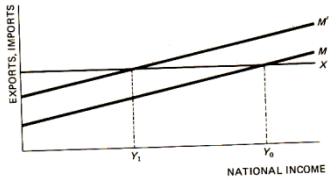


To start with, we have an equilibrium national income, Yo, where savings plus imports are equal to exports. We now get an increase in exports, so that the export schedule rises from X to X, This produces an expansionary effect on the national income, which increases from Yo to Yi, where again we have a state of equilibrium with savings plus imports equal to exports. How large the expansionary effect on national income will be from

a given increase in exports depends on the slope of the savings-imports schedule. This slope depends on the marginal propensities to save and import. The smaller the sum of these propensities, the smaller will be the slope of the schedule and the larger the expansionary effect of an increase in exports on national income.

In the same way as an autonomous increase in exports will have an expansionary effect on the national income, an increase in imports will have a concretionary effect. This is illustrated in fig 3. For the sake of reasoning, we assume that there are no net savings and no net investment. The reason for the increase in imports can be one of many. The most simple explanation could be to assume that it depends on a change in tastes. The consumers consume as much as before but fewer home-produced goods and more imports. This leads to decrease in income for those employed in these domestic industries, and the total income will fall even more through the multiplier effect, until finally a new equilibrium is reached at a lower national income.

Fig-15.3 Concretionary Effect of Imports on the National Income

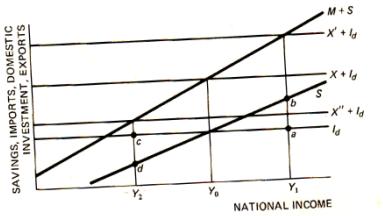


This process is illustrated with the help of geometry in figure 3. We start from equilibrium position at Y_0, where imports and exports are equal and where we show the original equilibrium of the national income. We then see an upward movement in the import schedule, leading to a contraction in the national income and finally to a new equilibrium at the lower national income Y_1. We might observe that this process is of exactly the same nature as the one connected with the savings paradox.

In a closed economy we have the equilibrium condition I = S. In open economy, investment can be broker down into two parts: domestic investment, Id, and foreign investment, *If* . The equilibrium condition can be written as Id + If = S. Foreign investment is the difference between exports of goods and services and imports of goods and services.

Hence we get : If = X – M. Substituting equation into : Id + X = S + M. Again it may be useful to give a geometric illustration. In figure 4 we start from a situation where S is the savings schedule and M + S is the added imports and savings schedule. Id is the domestic investment schedule and X + Id denotes the schedule for exports and domestic investment. This schedule cuts the savings –import schedule vertically above Y_0, which is the equilibrium national income. At this level of income there is also equilibrium in the balance of current account, because savings equals domestic investment and exports equal imports.

Fig:15.4 Determination of National Income in the Open Economy



Let us assume that there is an autonomous increase in exports so that the combined export-investment schedule rises to X + Id. This produces an expansionary impetus on the nation income, increasing it to Y_1, where again exports plus domestic investment equals savings are now larger than domestic investment. The difference is ab. This implies that exports are larger than imports by the same amount, and that the country exports capital. If, on the other hand, exports fell, so that the schedule for exports plus investment fell to X + Id, this would have a contractionary effect on the national income, which would fall from Y_0 to Y_2. At this level of income domestic investment would be large than savings by the distance *cd*, This implies that imports are larger than exports by the same amount, that the country has deficit in its balance of current account, and that an import of capital is needed to cover the given, autonomous domestic investment programme which takes place.

15.4 National Income and the Balance Of Payments:

We have just demonstrated in figure 4 that there may be an internal equilibrium, i.e. that the national income may be in equilibrium in the balance of payments. The time has come to see how this can occur and to discern the effects of income changes on the balance of payments. First we must understand clearly what is meant by equilibrium in the national income. The condition of equilibrium is for planned saving to equal planned investment. This being the case, consumers will be able to carry out their plans to consume and save and producers will be able to fulfill their plans regarding production of consumer and investment goods. Production of consumer goods will equal their consumption, and savings and investment will be equal. Then there will be no change in the national income from its given equilibrium value.

In an open economy the equilibrium condition has only to be reformulated so that it takes into account the possibility of a country does not have to rely only on domestic savings but also on foreigners to provide part of the total savings by their exporting capital. Also, a country need not only invest at home but can invest abroad by exporting capital. It is often said that the two main aims of a country's economic policy are to maintain full employment and an external balance. We shall return to the question of the aims and means in economic policy later. For the time being, we must only observe that equilibrium in a country's national income, according to the Keynesian definition just gibe, does not necessary imply that the economy is fully employed. This definition says only that total planned demand equal's total planned production. This equilibrium can be at any capacity level. If it happens to be at 100 per cent capacity, the economy is fully employed. If it is at lower level of capacity utilization their will be some unemployment in the economy, and if is at a 110 per cent of the economy's capacity level, this will have definite implications for the balance of payments.

In this connection we must also define the way we use the terms inflation and deflation. By inflation, or an inflationary pressure in the economy, we mean simply that planned total demand is larger than planned total production i.e. that investment ex ante is larger than savings ex ante. This does not necessarily imply that planned total demand is larger than planned total production, i.e. that investment ex ante is larger than savings ex ante. This does not necessarily imply rising prices, but it will, in many instances, lead to a rising price level. With deflation, or a deflationary pressure in the economy, we mean

analogously, that total production is larger than total demand, in other words, that planned savings are larger than planned investment.

Let us first assume that during the previous period of time a country achieved internal balance at a full-employment level and that the balance of payments was in equilibrium. We now get an increase in total demand. There can be many causes for such an increase. Perhaps consumers wish to save less and consume more from a given income. Or it can be a change in a policy variable, for instance a decrease in interest rates, which encourages investment. Whatever the reason, there will be an inflationary pressure in the economy. In the open economy, such pressure need not usually lead to rising prices but to a deficit in the balance of payments; it can, of course, lead to both. Consumers will consume more than before, and producers will continue to invest as much as they used to. As the economy, however, is already at full employment, there is no possibility of increasing domestic production in the short run. Exports will not change, but imports will increase to satisfy the increase in demand for consumer goods. At the end of the period, the country will find that it has a deficit in its balance of payments and that, in fact, a part of its domestic investments has been financed out of capital imports.

It is of no consequence for this process how the internal production pattern has been influenced- how the composition of goods has been affected. It may be that exports and home production of investment goods remain unchanged and that imports, only, increase or perhaps, production of exports fall and factors of production from this sector to meet the increase in demand for consumer goods. Whichever way the production pattern changes under inflationary pressure, the main thing for us to observe is the fact that domestic investment is larger than savings and that imports are larger than exports. It is important to realize that in the national income, generated on the demand side in the way just described, often leads to a deficit in the balance of payments. An inflationary pressure within the economy does not necessarily lead to rising prices but instead gives rise to a deficit in the balance of payments, which has to be covered by an unforeseen accommodating capital inflow can then be seen as a warning signal, as described in earlier chapter. This case is classical example taken from Keynesian analysis. The policy implications in this case are also quite clear.

Let us assume instead, that starting from equilibrium with full employment, a decrease in exports occurs. This produces a contra dictionary effect on the national income, which, through the multiplier effect, will be larger than the original decrease in exports. Imports will also fall as national income falls, but the decrease in imports will be smaller than the decrease in the exports, so the country will simultaneously fall into a situation of unemployment and a deficit in balance of payments. This is a tricky situation to escape from. An inflationary policy can return the country to full employment but only at the cost of deterioration in the deficit in the balance of payments. A simple Keynesian policy, which works by deflating or inflating the national income, cannot alone cope with this situation.

A simpler situation is one in which, again staring from equilibrium with full employment, the country receives an autonomous upward impetus in its savings schedule. As the consumers wish to save more and consume less, deflationary pressure on national income is evolved. Income falls, resulting in some unemployment. A national income falls, so does the demand for imports, but there is no reason to expect a change in exports. Demand for exports depends primarily on incomes abroad, and these, at least to start with, have not changed. At the same time, exporters at home will create a downward pressure on wages, so that exporters obtain their factors of production more cheaply than previously. The country, therefore, will have a surplus in its balance of payments and be put into a situation where unemployment is combined with a favorable balance of payments.

This situation is comparatively simple to deal with. An inflationary policy will lead the country back toward equilibrium in national income a the full-employment level. This will lead to an increase in demand for imports at an unchanged level of exports, but as the country has a surplus in its balance of payments, there is little cause to worry. We have now set out several cases of how changed in the national income affect the balance of payments. There is an intimate connection between income changes and the balance of payments, and any change in the national income will have some effect on it. To sum up, we can say that in general an inflationary change in national income will have a negative effect on the balance of payments, and a deflationary change in national income will have a favorable effect on the balance of payments. There are, however, exceptions to this general rule. An autonomous decrease in exports will have both deflationary effect on the national income and lead to a deficit in the balance of payments. Analogously, a shift in consumption away from imports

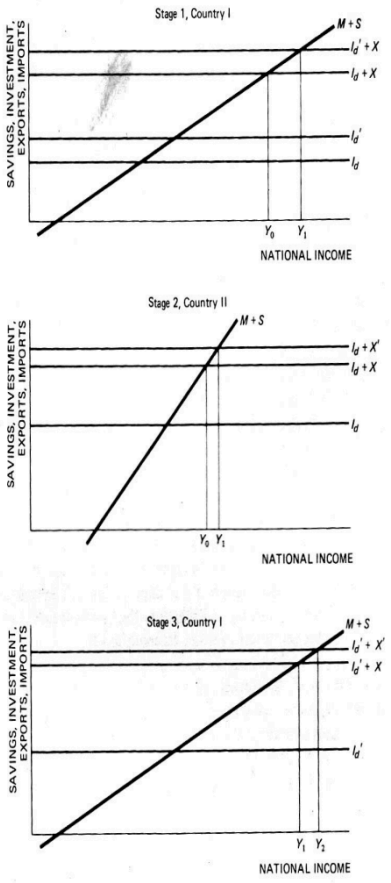
to domestically produced goods will have both an inflationary effect on the national income and lead to a surplus in the balance of payments.

15.5 The Impact of International Repercussions and Business Cycles:

We have demonstrated how a change in a country's exports or imports will affect the country's national income. Countries are linked together by trade with each other, however, and change in one country's national income will have repercussions on the income of its trading partners. A recession in the United States which leads to a fall in its national income will also lead to a fall in American recession through a fall in their exports, which in turn, through a multiplier effect, will have a deflationary impact on national income in these countries. In this way all trading countries are lined together, and no country can be completely isolated from others. In a large country such as the United States, whose national income comprises approximately 40 per cent of the world's income, a change in national income will have important repercussions, even though its marginal propensity to import is small. The larger a country's marginal propensity to import, therefore the more dependent on foreign trade it is, the more sensitive to foreign repercussions the country will usually be.

A geometric illustration of the foreign repercussions, and of how national incomes of countries are connected through trade, is given in figure 5. We start off in stage 1 with an increase in domestic investment in country 1, which increases from Id to I'd. This gives rise to a vertical upward shift in the combined investment plus exports schedule and to an expansionary effect on the national income, which increases from Y_0 to Y_1. As national income increases, so does the demand for imports. For the country's trading partners, here symbolized by country II, this means an increase in exports. We also see from the figure in stage 2 how country II receives an upward shift in its export schedule, leading to an expansion of its national income, which increases from Y_0 to Y_1. As country II's income increases, its demand for imports also increases, which in the demand for country I's exports. This is illustrated in stage 3, where we see that country I receives another upward shift in the Id + X schedule, so that the national income increases even more, from Y_1 to Y_2.

Fig:15.5 Internal Propagation of Business Cycles



The international propagation of business cycles was once a very important problem. Within a short period of time, most countries began to feel the depression, and many were soon in as bad a situation as the United States itself. The first two decades after the Second World War saw no deep recessions among the advanced industrial countries. It is true that years of boom alternated with years of recession. One way of characterizing the interrelationships between countries and the sensitivity in these relationships is by means of foreign trade multipliers. We should have a basic understanding of how the national income is determined in an open economy and how fluctuations in one economy spread to others. It should be stressed, however, that only basic principles have been discussed. In order to derive fairly uncomplicated expression for the foreign trade multiplier, we have assumed simple functional relationships and have often added assumptions that investment and exports are independent of changes I the national income. In reality this is not the case, and things become more complicated than they appear in this simplified version.

Another important factor is that if we introduce time into the model, the relationships become even more complex. We have then to take time lags into account, admit that some functional relationships might change in time. The savings functions may not be of the simple linear type which we have assumed but may be non-linear and change in a fashion hard to predict; wealth must be taken into account to determine the consumption functions; and so on. We should therefore keep in mind that fact that the dynamic world in which we live is more complex than the simple comparative-static models that we have used might lead us to believe. This should not cloud the fact that even simple theorizing can be very useful and that simple Keynesian models have proved very powerful tools for economic policy.

15.6. Conclusion:

The principle of multiplier says that if the marginal propensity to consume is greater than zero, an increment in investment will increase the income greater then the incremental investment ,through successive rounds of spending. The consumers consume as much as before but fewer home-produced goods and more imports. This leads to decrease in income for those employed in these domestic industries, and the total income will fall even more through the multiplier effect, until finally a new equilibrium is reached at a lower national income. As the national income increases, so do imports. A country's average propensity to import is defined as the total imports divided by the total national income, i.e, M/Y. an autonomous increase in exports will have an expansionary effect on the national income, an

increase in imports will have a concretionary effect. we can say that in general an inflationary change in national income will have a negative effect on the balance of payments, and a deflationary change in national income will have a favorable effect on the balance of payments. There are, however, exceptions to this general rule. Therefore keep in mind that fact that the dynamic world in which we live is more complex than the simple comparative-static models that we have used might lead us to believe. This should not cloud the fact that even simple theorizing can be very useful and that simple Keynesian models have proved very powerful tools for economic policy.

15.7. Technical Terms

Foreign trade multiplier
Export multiplier
Gold Standard
Marginal propensity to consume
Closed economy
Open economy
Domestic investment

15.8. Self Assessment Questions:

1.Explain the different dimensions of Foreign Trade Multiplier

2.Write about the effects of increase in exports on income

3. Analyze the effects of increase in Imports on National Income

4. Examine the impact of The International Propagation of Business Cycles

15.9. Reference Books:

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(Prof. M. Sundara Rao)

LESSON -13

RELATIVE MERITS AND DEMERITS OF FIXED AND FLEXIBLE EXCHANGE RATES

16.0. Objectives of the Lesson:

The important objectives of this lesson are:

1.To present the determinants of Exchange Rate and determination process of Equilibrium Exchange Rate

2.To explain the fixed exchange rate and floating exchange rates

3.To analyze the advantages and disadvantages of fixed exchange rates

4.To describe the merits and demerits of floating exchange rates

5.To highlight the relative importance of both the Exchange Rate systems.

16.1 Introduction:

Many countries in the world followed the Brettenwoods arrangement to express the value of their currency under gold standard. In this method the value of the currencies of many countries are pegged with American dollar. It means the volume of the currencies of many countries was expressed in terms of American dollar because it was considered a dominant and strongly valued currency. However, after 1973 many countries for many reasons did the Brettonwoods arrangements away. Increasing economic burden and the inequalities in the foreign exchange payments are said to be the important reasons for the failure of Brettenwoods agreement.

After 1975, al the member countries of International Monetary Fund changed the method of foreign exchange and followed a more liberalized system. In this method any country can express the value of its currency in terms of the currency of other country or in terms of a basket of the currencies of a group of countries. In 1978 the provisions of International Monetary Fund were modified enabling the member countries to change their foreign exchange policies. As a result, several methods of foreign exchange methods came into existence. Some of the important methods of foreign exchange that are followed by countries are : pegged single currency, peg currency composite or basket currencies, flexibility limited, flexibility limited cooperative arrangements, more flexible adjustment indicator, more flexible managed float, more liberalized free change etc.

16.2. Determinants of Exchange Rate

Generally the exchange rate is determined based on the demand for and supply a country's currency in the foreign currency market. Demand for foreign exchange depends upon the exchange rate. Changes in the exchange rate leads to changes in the demand for foreign exchange. Generally,

with a rise in the .exchange rate the demand for foreign exchange contracts. Similarly, with a fall in the exchange rate the demand for foreign exchange contracts. Similarly, with a fall in the exchange rate the demand for foreign exchange expands. Hence, there is an inverse or negative relationship between the exchange rate and demand for foreign exchange. In fact the relationship between the demand for foreign exchange and the exchange rate is same as that of the relationship between the demand for commodity and its price.

Like the demand schedule for a commodity , the foreign exchange demand schedule shows different levels of foreign exchange demanded at different levels of exchange rates. The increase in the demand for foreign exchange, as a result of a fall in the exchange rate. described in the foreign exchange schedule, can be shown on a graph. Infact, like the demand curve for a commodity, demand curve for foreign exchange slopes downwards to the right.

Elasticity of demand for import is the primary factor, responsible for the negative relationship between the exchange rate and demand for foreign exchange. If the exchange rate increases by 2.0 percent, the demand for imports decreases more than 2.0 percent as they become dearer. As a result, the payments for the decreased imports decline thereby pulling down the demand for foreign exchange.

On the other hand , if the exchange rate decreases by the 2 .0 percent, imports become cheaper and demand imports expand by more than 2.0 -percent. As a result, the payment for the increased imports shoots up, thereby pushing up the demand for foreign exchange. Thus, die exchange rate, to larger extent, depends upon the demand for the import of goods and services further, factors like foreign investments, foreign debt, payment to foreign countries also influence the demand for foreign exchange.

Supply of foreign exchange depends upon the exports of goods and services and foreign investments. The magnitudes of exports and the foreign exchange diet a country can earn, depends upon the quantity of imports by other countries from this country. It means that the level of exporting goods and services determines the level of foreign exchange earning of a country. If the domestic prices remain constant or unchanged, exchange rate determines the size of exports.

The exchange rates between the currencies of two countries are mutually opposite. In other words, the exchange rates are favourable in one country with unfavorable effects in another country For example: suppose the exchange rate of English currency in India increases. Then the prices of England goods (imports from England) in India increases and the demand for imports from England

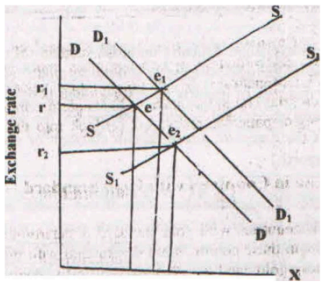
decreases. In other words. an increase in the exchange rate of pound in India results in an increase in the rupee-found exchange rate. Hence, the imports from England decline and thereby the demand for English currency declines.

However, the opposite situation prevails in England. With an increase in the exchange rate of England currency-the pound - rupee exchange rate declines. Then the rupee and Indian goods become cheaper and hence England imports more goods from India and pays more for cheaper imports from India. In other words, England supplies more Indian currency. In this way the fall in exchange rate helps to increase the exports. Therefore, there is a positive relationship between exchange rate and the supply of foreign exchange. The supply schedule of foreign exchange reveals this relationship. Like the supply - price curve of a commodity, the supply curve of foreign exchange increases from left to right as shown in die following diagram.

16.3 **Determination of Equilibrium Exchange Rate**

We have examined that in the foreign exchange market, the changes in the determinants of exchange rate cause changes in the exchange rate When the supply of foreign currency remains unchanged, an increase in the demand for foreign currency leads to an increase in the exchange rate. Contrary to this, when the demand for foreign currency remains unchanged, an increase in the supply of foreign currency leads to a fall in the exchange rate. These details can be seen from the following graph.

Fig-16.1 Determination of Equilibrium Exchange Rate



D.D is the demand curve and SS is the supply curve of foreign exchange. The demand and supply of foreign exchange are equal at the point of equilibrium e' and the equilibrium exchange rate is r. At this equilibrium exchange rate demand (QR) and supply (DD) of foreign exchange arc same,

Suppose, the supply of foreign currency (SS) remaining unchanged, the demand for foreign currency increases to Di, Di due to a rise in imports.

Now. new equilibrium is established at point e. where the supply(SS) is Q Q, are same and determines the new exchange rate at n An increase in the demand from OQ to OQ_1pushed up the exchange rate from or to on. In other words, an increase in the demand for foreign exchange QQ_1 led to an increase in the exchange rate of iti. In other words, an increase in the demand for foreign exchange QQ_1 led tc an increase in the exchange rate of IT. It means, more of domestic currency is to be supplied at an increased exchange rate.

Suppose that demand for foreign currency remains unchanged (DD). Now with an increase in the exports, the supply of foreign currency increases to S.S. Equilibrium is established at point $\mathbf{e_2}$ where the demand and supply are equal to one another, determining the exchange rate at r_2. An increase in the supply of foreign exchange QQ_2 pulled down the exchange rate from r to r_2. Additional supply of foreign exchange is QQ_2. It means, the value

of domestic currency is increased in terms of the value of foreign currency, due to a fall in the exchange rate.

Exchange rate may be advantageous or disadvantageous to a country. To know this, we have to know in whose currency terms the exchange rate transactions are taking place in the foreign exchange market. If the exchange rate is decided in terms of domestic currency, a foil in the exchange rate is advantageous and a rise in the exchange rate is disadvantageous to the country. Contrary to this, if the exchange rate is decided in terms of foreign currency, a foil in the exchange rate is disadvantageous and a rise in the exchange rate is advantageous to the country.

16.4 Types of Exchange Rate Systems:

As explained earlier, exchange rate explains the number of units of a country's currency required for the purchase of one unit of other or many countries currency. If 5 units of Nepal currency are required to purchase 1 unit of India currency 5 units of Nepal currency is to be exchanged. Thus, exchange rates establish relationship between the currencies of different countries. These exchange rates are useful to compare the production expenditure and prices in the international market. The currency values of different countries participating international trade change in different time periods in different ways for different reasons. Exchange rate changes due to changes in international policies of different countries, changes in price levels, change in trade agreements.

Exchange rate may remain stable for sometime and change afterwards. Exchange rate changes accordingly to the Balance of Payments surplus and balance of payment deficit. These floating rates may be beneficial to one country is some time periods and may be harmful to the same country in some other time periods. In fact, exchange rates are of different types and important among them are : fixed or rigid exchange rate and floating or flexible exchange rate. Fixed or rigid exchange rate relates to the unchanged rate of exchange between one country's currency and another or many countries currencies for some time period. In this case the fixed or rigid or unchanged exchange rate refers to the time period. For instance, 5 units of Nepal currency is exchange for 1 unit of Indian currency for 3 years (1998-2001). During these three years period the exchange rate between the currencies of Nepal and India are said to be rigid, fixed or stable. This stability or rigidity in the exchange

rates of all currencies par the way for international economic stability. However, in reality fixed exchange rates don't prevail in the markets.

Floating exchange rate refers to the changes in the exchange rate in accordance with the changes in the demand and supply of currencies. In this case the exchange rate changes from time to time. In other words, the exchange rate is determined ad different levels according to the changing conditions of demand for and supply of foreign exchange. Frequently changing exchange rates are harmful to the healthy growth of any economy. Uncertainly in the exchange rates of currencies of two countries affects the trade balance and trade prospects of the countries in international market.

16.5. Fixed Exchange Rate System

The exchange rate remains stable as long as the value of a country's owns currency in terms of the value of foreign currency remains stable. These fixed exchange rates indicate unchanged international policies. Hence, these exchange rates are called liberal permanent exchange rates. In any country, if the normal currency rates remain stable, producers and consumers will know the nature of markets easily. Further, they can understand the market signals and rearrange or adjust their activities accordingly. Therefore, frequent market crises will be under control. As a result of this stability, the traders and businessmen compete n the market efficiently. This reduces the market instability to some extent. The effects of stability in the domestic market will influence the foreign trade market. Afterwards stable conditions may prevail in foreign exchange market. Thus , the stability in the exchange rates of all countries pave the way for international economic integration or unity.

Countries following the fixed exchange rate system agree to keep their currencies at a fixed, pegged rate and to change their value only at fairly infrequent intervals, when the economic situation forces them to do so. Under the gold standard, the values of currencies were fixed in terms of gold. Until the breakdown of the Bretton woods system in the early 1970, each member country of the IMF defined the value of its currency in terms of gold or the US dollar and agreed to maintain the market value of its currency within 1 per cent of the defined value. Following, the break of their currencies while a number of countries still embraced the fixed exchange rate system.

16.5.1. Arguments for the Stable Exchange Rate System

The relative merits and demerits of the fixed and flexible exchange rate systems have long been topic for debate. A number of arguments have been put forward for and against each system. The important arguments supporting the stable exchange rate system.

Exchange rate stability is necessary for orderly development and growth of foreign trade. If exchange rate stability is not assured, exporters will be uncertain about the amount they will receive and importers will be uncertain about the amount they will have to pay. Such uncertainties and the associated risks adversely affect foreign trade. A great advantage of the fixed exchange rate system is that it eliminates the possibilities of such uncertainties and risks. Especially the developing countries, which have persistent balance of payments deficits, should necessarily adopt the stable exchange rate system to prevent continuous depreciation of the external value of their currencies.

Exchange rate stability is necessary to attract foreign capital investment, as foreigners will not be interested to invest in a country with an unstable currency. Thus, exchange rate stability is necessary to augment resources and foster economic growth. Unstable exchange rates may encourage the flight of capital. Exchange rate stability is necessary to prevent its outflow. A stable exchange rate system eliminates speculation in the foreign exchange market. A stable exchange rate system is a necessary condition for the successful functioning of regional grouping and arrangements among nations. Foreign trade plays a very important role in case of a number of countries.

For certain countries, the value of foreign trade exceeds GNP. Exchange rate stability is especially important for such countries to ensure the smooth functioning of the economy. Its absence will give rise to uncertainties and this would disturb the foreign trade sector and, thereby, the economy. A stable exchange rate system is also necessary for the growth international money and capital markets. Due to the uncertainties associated with unstable exchange rates, individuals firms and institutions may shy away from lending to and barrowing from the international money and capital markets.

16.5. 2. Problems of Fixed Exchange Rate System:

In reality fixed exchange rates don't prevail in the markets. All exchange rates are intrinsically volatile. The fixed exchange rates or unchanged exchange rates affect the growth of trade. Sometimes, the cost of production changes due to changes in the level of technology, shortage of raw materials and labour supply. The prices of both exports and imports vary. If the exchange rate fails to change according to these changes in the prices of commodities many problems come up leading to economic crisis. These will have adverse effects on the balance of payments position of a country. To overcome these problems under the fixed exchange rate regime government has to change its monetary policy and also the money supply. These policy changes may result in inflation or deflation. Then it becomes a problem for many countries to follow the fixed exchange rate system.

The crisis situations in some countries force changes in exchange rates of other countries and thereby to change the level of international trade and commerce. According to one opinion, change is an indication of growth and development. Non-economic factors also cause changes in some countries and force changes in the fixed changes rates. For example, with the growth of population of the demands for the import of goods and services increases and in turn the demand for foreign exchange increases forcing the exchange rate to change. Hence, it is difficult for the exchange rate to be stable for a long time.

16.6. Flexible Exchange Rate System:

Under the flexible exchange rate system, exchange rates are freely determined in an open market primarily by private dealings, and they, like other market prices, vary from day-to-day. Under the flexible exchange rate system, the first impact of any tendency toward a surplus or deficit in the balance of payments is on the exchange rate. A surplus in the balance of payments will create an excess demand for the country's currency and the exchange rate will tend to rise. On the other hand, a deficit in the balance of payments will give rise to an excess supply of the country's currency and the exchange rate will, hence, tend to fall.

Automatic variations in the exchange rates, in accordance with the variations in the balance of payments position, tend to automatically restore the balance of payments equilibrium. A surplus in the balance of payments increases the exchange rate. This makes

foreign goods cheaper in terms of the domestic currency and domestic goods more expensive in terms of the foreign currency. This, in turn, encourages, imports and discourages exports, resulting in the restoration of the balance of payments equilibrium. On the other hand, if there is a payments deficit, the exchange rate falls and this makes domestic goods cheaper in terms of the foreign goods more expensive in terms of the domestic currency this encourages exports, discourages imports and thus helps to establish the balance of payments equilibrium. Theoretically, this is how the flexible exchange rate system works.

16.6.1. The cases for Flexible Exchange Rates:

The fundamental case for flexible exchange rates is built upon the law of supply and demand. According to this law, the price should regulate the quantities supplied and demanded so that the market clears and equilibrium is reached. If the price would rise temporarily over its normal level, supply would increase and demand would decrease, and the price would be driven back by competitive forces to its equilibrium level. Likewise, if the price would fall, supply would also fall, the demand would increase and the price would be driven up to its normal level. Efforts at government price-fixing will unfailingly create difficulties. If the government sets the price at its equilibrium level, intervention has no effect. Otherwise, the authorities set the price too high or too low. In the first case supply will exceed demand, and the government, or somebody else, will have to absorb the surplus production. In the second case, the price is set too low, and demand will be larger than supply, forcing the authorities either to meet the excess demand out of their own stocks or to try to restrict demand.

The difficulty with price-fixing is that it will soon create problems in all cases except the one in which the price happens to be fixed at its equilibrium level. That the authorities would happen to pick this one price out of the infinite set of prices is hardly likely. Since, the probability of picking a price that is not the equilibrium price is large, the prospects are that price-fixing will cause problems. If the price is set too high, production will be too large. If the government finds it impossible to lower the price (for instance, because of commitments to producers), it will have to try to restrict production. Setting production quotas, applying taxes on production, or undertaking some other restrictive measures. Distributing surpluses without regard to price, by propaganda, etc, might also encourage consumption.

If the price is fixed too low, shortages will occur and price controls will have to be applied. In a situation of permanent shortage, price controls will hardly be effective in the long run. Rationing might be use, but black markets and various forms of economic disorder will probably emerge. The government might try to use other long-run measures to stimulate production like investments incentives and subsidies for encouraging technical progress. However, such means of overcoming the side-effects of price-fixing are cumbersome, and their effectiveness is open to question. The advocates of flexible exchange rates maintain that exactly these types of problems will occur if the exchange rate is fixed.

There is no reason to believe that the government would find the equilibrium price for foreign exchange in terms of the national currency if it tries to fix the exchange rate. Anyway, as soon as the underlying economic conditions change, the exchange rate should also change. As soon as the fixed exchange rate deviates from the equilibrium price of foreign exchange, problems will arise. If the price of foreign currency is set too low, the balance of payments will show a deficit. This means that the currency is overvalued. Imports will then be encouraged, while exports will be placed at a disadvantage. The country will run down its stock of foreign exchange. Sooner or later it will be forced to take some policy action: it will have to deflate the economy to decrease imports, or it will have to deflate the economy to decrease imports, or it will have to various restrictions on imports, or it will have to devalue its currency.

If, on the other hand, the price of foreign currency is too high, in other words if the national currency is undervalued, a surplus in the balance of payments will develop. There might be special reasons why a country would want its currency to be undervalued; one might be that the country has nationalistic leanings and wants its currency to be “strong”. But if the country takes straight-forward economic view of its exchange rate, the bargain price that foreigners will pay for its currency will create problems. The country will have to accumulate foreign reserves. This will expand the country’s money supply and stimulate inflation. In order to check the surplus the country can choose between various policies. It might restrict exports or encourage imp0orts. It might restrict exports or encourage imports. It might foster capital exports or engage in development assistance on a scale that its citizens find undesirable. It might also apply various kinds of controls to check exports and promote imports or try to neutralize the impacts on its money supply. Finally, it might have to appreciate its currency.

16.6.2. Cases against Flexible Exchange Rates:

A number of economists strongly advocate the adoption of the flexible exchange rate system. Nobel laureate, Milton Friedman, for instance, argues, there is sincerely a facet of international economic policy for which the implicit acceptance of a system of rigid exchange rates does not create serious and unnecessary difficulties. He is of the view that sooner a system of flexible exchange rates is established; the sooner unrestricted multilateral trade will become a real possibility. And it will become one without, in any way, interfering with the pursuit by each nation of domestic economic stability according to its own rights.

A number of economists, however, point out that certain serious problems are associated with the system of flexible exchange rates. We present here some important arguments against and for flexible exchange rates. Flexible exchange rates present a situation of instability, creating uncertainty and confusion. Friedman disputes these views and argues that a flexible exchange rate need not be an unstable exchange rate. If it is, it is primarily b because there is underlying instability in the economic conditions governing international trade. And a rigid exchange rate may, while itself remaining nominally stable, perpetuate and accentuate other elements of instability in the economy. The mere fact that a rigid official exchange rate does not change while a flexible rate does is no evidence that the former means greater stability in any more fundamental sense.

The system of flexible exchange rates, with its associated uncertainties, makes it impossible for exporters and importers to be certain about the price they will have to pay or receive for foreign exchange. This will have a dampening effect on foreign trade. Friedman encounters this objection by pointing out that under flexible exchange rates, traders can almost always protect themselves against changes in the rate by hedging in the future market. Such markets in foreign currency readily develop when exchange rates are flexible. However, as Sodersten points out, it is certainly true that no market exists today that can protect against the risks connected with a system of flexible exchanges, and it is doubtful if such a market can be established in the future, if a system of flexible exchange were introduced. A system of flexible exchange might, therefore, have considerably dampening effect on the volume of foreign trade.

Under flexible exchange rates, there will be widespread speculation, which will have a destabilizing effect. Against this, it is argued that normally, speculation is supposed to be destabilizing, it implies that speculators lose money on their activity. However, Farell question this argument and shows that speculation can be, at the same time, profitable and destabilizing. The system of flexible exchange rates gives an inflationary bias to an economy. When the currency depreciates due to payments deficit, imports become costlier and this stirs up an inflationary spiral. The supporters of the flexible exchange rates, however, counter this criticism by stating that when imports become costlier, the demand for them falls, compelling foreign suppliers to reduce prices. Though it is theoretically possible, it may not be realized. The general feeling is that flexible exchange rates may have an inflationary impact on the economy.

According to the advocates of flexible exchange rates, all the troubles that an undervalued or overvalued currency causes could be avoided if the authorities could see the light and begin to float the currency. A flexible exchange rate would not necessary lead to large fluctuations. It would be stable as long as the underlying economic conditions were not changing. Only if these changed would the price of foreign currency also change. Further some private speculators would smooth out random fluctuations around the normal value. If the currency appreciated above its equilibrium value, if its price fell in terms of foreign currency speculators would buy the currency; and if depreciated, speculators would sell the currency. Thereby they would smooth out fluctuations and help to keep the exchange rate stable. If the underlying conditions changed, however, the price of foreign exchange would also change. The same factors, which under fixed rates give, rise to deficits and surplus in the balance of payments would under floating rates make the exchange rate depreciate or appreciate. Thereby equilibrium would be preserved and the government could be freed from considerations regarding the external balance.

Central to the arguments for flexible rates is the opinion that government intervention in the economy should be restricted. The controls and the restrictions that often accompany fixed exchange rates are objectionable to those who favor maximum individual freedom. Attempts at fixing or manipulating exchange rates are, according to this view, especially objectionable because the control of exchange rate is often entrusted to experts who are effectively out of reach of any democratic control. The exchange rate is often pegged out of consideration for other economic goals, like preserving a certain market structure or

influencing the income distribution. However, such goals can be reached more effectively by the use of more direct means than exchange-rate policy.

The great virtue of flexible exchange rates, according to its proponents, is that such a system will free the government from considerations about the balance of payments. Instead, the government can concentrate its activities on domestic economic policy. Under fixed rates, countries, which are averse to inflation, will be pitched against countries who view inflation with quantity. With flexible rates, each country can choose whatever mixture of unemployment and inflation it prefers. Flexible exchange rates should therefore give an increased freedom both to individuals and to countries to purse whatever aims they have for their economic policies.

16.7. Fixed vs Flexible Exchange Rate Systems:

The fundamental argument for flexible exchange rates is that they would allow the citizens of a country to pursue their economic interests with minimum of restrictions. At the same time, they would allow the authorities t work for domestic aims free from balance of payments considerations by giving them autonomy with respect to their use of monetary, fiscal and other policy instruments. Because flexible exchange rates would grant autonomy to the national government while being consistent with an efficient organization of the world economy. The case for fixed exchange rates rests on the argument that they would stabilize trade and improve resource allocation .the advantages of fixed exchange are much the same as those derived form having a common national currency, and reasoned case for fixed exchange rates builds substantially on the theory of optimum currency areas. A common currency of fixed exchange rates would also improve the allocation of resources by promoting integration of the economies using fixed exchange rates. The horizon of firms would be larger and they could reap increased returns to scale and allocate capital and labor in a more efficient way. The price level would become more stable and social gains could result form an increased use of money, while the need for currency speculators and forward brokers would diminish. However, the scope for independent monetary policies would decrease.

Important factors to take into account when analyzing the pros and cons of exchange rate regimes are uncertainty, speculation and inflation. In principle, flexible exchange rates might increase or they might decrease uncertainty. For practical purposes, it seems that they

would increase uncertainty for traders. This would have a dampening effect on the volume of foreign trade. A decrease in the volume of trade would have to be counted as a cost on the part of flexible rates compared with the benefit that a fixed exchange rate would entail in this respect. A pegged exchange rate could be regarded as subsidy to those engaged in foreign trade. There can be different views as to who should carry the burden of this subsidy. It must be stressed that the question of exchange rates and uncertainty is very involved and that the implications of a certain exchange-rate regime can vary greatly for different economies.

The effects of speculation are open questions to which no cut-and-dried answers can be given. The limited experiences from the 1920s seem to show that speculations at that time was destabilizing. Since floating rates became common in 1973, fluctuations in exchange rates have been large. It seems that destabilizing speculation has caused some of the excessive fluctuations. Regarding inflation, the problem in more clear-cut. A system of flexible exchange rates will give an inflationary bias to an economy. A depreciation of the exchange rates will undoubtedly have tendency to raise the price level. For most industrial countries, a 'ratchet effect' will probably be at work, which will lead to a depreciation producing its full inflationary impact on the price level, though an appreciation will not have comparable effect in a downward direction, as prices and wages can be expected to be rigid in a downward direction. To this must also be added the fact that flexible exchange rates might lead to an increase in frictional employment because of a tendency to 'over-reallocate' resources. Flexible exchange rates, therefore, can hardly avoid having an inflationary impact on an economy. This is especially true when there is a depreciation trend in the exchange rate.

If a system of flexible exchange rates has a definite weakness with respect to inflation, it has strength over fixed rates when it comes to maintaining a high level of employment. A system of exchange rates might make it very difficult for a country to attain both full employment and equilibrium in the balance of payments. Flexible exchange rates have a distinct advantage here as they automatically involve an element of expenditure-switching, which will make it easier for a country to reconcile the goals of high level of employment with external equilibrium.

There is, as we have seen, no neat answer to the question of whether a country should go for a system of fixed or flexible exchange rates. The answer will depend on

circumstances. It will depend on the characteristics of the economy, and it will change with time as the economy changes. Value judgments are also involved, and ultimately the answer could depend on values and view of a political nature. One or more general comments might be justified. The greater the openness of an economy and the more dependent on foreign trade it is, the larger are the risks connected with flexible exchange rates. The larger, then, will be the inflationary effect and the greater will be the losses connected with Triffin's 'rachet effect' and the resource-allocation effect. If there is no downward or upward trend in the exchange rate, the country might do well to stay on a system of fixed exchange rates.

If there is trend in the exchange rate, things might turn out differently. If the cost level of one country rises faster than it does in other countries, this will usually mean that the country runs into balance-of-payments difficulties and that there is a depreciation trend in the exchange rate. If this is the case, fixed exchange rates could put an intolerable pressure on the economy, as a balancing of trade will mean a continually falling rate of employment. For countries that find it difficult t keep their cost level in line with the rest of the world, the attempt to maintain a fixed exchange rate could become a very frustrating under taking.

This last point hints at a problem of great importance. In a world of fixed exchange rates, external disequilibrium will undoubtedly arise. The rate and the pattern of economic growth vary among countries. Rates of inflation vary. Some countries are more ambitious than others as far as domestic economic goals are concerned. These factors will for some countries produce persistent depreciation trend in the exchange rate. These countries will basically have to choose between maintaining a fixed exchange rate until depreciation is forced upon them of going over to a system of flexible exchange rates.

16.8. Conclusion:

The determinants of foreign exchange rate are discussed first and then the determination of equilibrium exchange rate is analyzed afterwards. We have reviewed the arguments for and against the fixed and flexible systems. Which system, then, should a country adopt? The answer will depend on circumstances. It will depend on the characteristics of the economy, and it will change with time as the economy changes. Value judgments are also involved, and ultimately the answer could depend on values and views of a political nature. Whether a system of fixed or flexible exchange rates will prevail will depend economic circumstances. In times of reasonably calm economic development the prospects for fixed exchange rates are good. If the world economy experiences great stress

and large disturbances, fixed exchange rates will not be operational and flexible rates are likely to develop.

16.9. Technical Terms:

Fixed Exchange Rate:

This refers to the fixed or unchanged rate of one country's currency with the other or many currencies for some time. Time period is very important here to identify the stability in exchange rate.

Floating Exchange Rate:

This refers to the changes in the exchange rate of one country's currency with other or many countries currencies in accordance with the changes in the demand for and supply of foreign exchange.

Desired or optimum exchange rate:

This refers to the floating exchange rate according to changing market conditions. It basic features are stability and flexibility.

16.10. Self Assessment Questions:

1. Describe fixed exchange rate and issues associated with this system?
2. Explain the advantages of flexible exchange rate system?
3. Compare and contrast fixed exchange rate and flexible exchange rate system?
4. Analyze the advantages of fixed exchange rate systems?
5. Analyze the disadvantages of fixed exchange rate systems?

16.11. Reference Books:

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LESSON - 14

International Monetary Fund

17.0 **Objectives**: After going through this lesson, you should be able

- To develop ability to know the International Monetary Fund
- To develop ability to understand IMF objectives and Functions
- To develop working knowledge of Organization and structure of IMF
- To develop specialized knowledge and understanding of Working of IMF

17.1 Introduction:

The International monetary system refers to the customs, rules, instruments, facilities, and organizations facilitating international payments. Sometimes the international monetary system is also referred to as an international monetary order or regime. The IMF duly recognized that the international monetary system cannot consist of fixed arrangements expected to be suitable for ever. Accordingly, suitable changes in the policies and operation of the Fund are directed towards meeting the financial requirements of the dynamic world economy.

The most important objective of the Fund was to establish monetary cooperation amongst the various member countries. The major causes of the Second World War were the absence of monetary cooperation amongst the countries of the world. Hence, it was now considered necessary to establish international monetary cooperation to prevent the outbreak of war in future. The I.M.F. was established to eliminate instability of foreign exchange. Another objective of the I.M.F. was establish a multilateral trade and payments system in place of the old bilateral trade agreements because the latter obstructed the free flow of international trade. The I.M.F. helps to promote the export of capital from the richer to the poorer countries so that the latter could develop their economic resources for achieving higher living standards.

17.2 The need for the IMF

The International Monetary Fund is one of the things born as a result of the Bretton Woods Agreement concluded in 1944. The IBRD or the World Bank is the other twin. While the World Bank was supposed to take care of the problems of reconstruction and development, the IMF was entrusted with the task of looking after the problems of international liquidity and exchange rate stability.

The inter-war period (1918-1939) was characterized by international monetary confusion and chaos. The gold standard was abandoned in exchange rates. The policy of free trade was abandoned and the imposition of tariffs quotas exchange controls, competitive exchange rate depreciations and devaluations came into prominence. Multilateral trade gave way to bilateral trade. Countries began to experience balance of payments lender ships and the problem of world liquidity shortage became more acute. A need was felt for an orderly conduct of international trade exchange rate stability and augmenting sources of International liquidity. In response to that need, the IMF was born after protected negotiations were held at Bretton Woods, in 1944.

17.3. 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 this 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.

17.4 FUNCTIONS OF THE FUND

1. The IMF operates in such a way as to fulfill 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.

17.5 ORGANISATION AND STRUCTURE OF THE FUND

Plans for international institutions that would organize the international monetary system circulated among the allied powers during the Second World War. A conference in 1944 of 44 nations at Bretton Woods, New Hampshire, led among other things to the creation of the International Monetary Fund (IMF). The Bretton Woods system that the IMF was to supervise rested on two pillars: the maintenance of stable exchange rates and a multilateral credit system. The IMF would organize the system, consult with member countries about exchange-rate changes, and create international liquidity when needed.

17.5.1 MEMBERSHIP.

The Second Amendment of the Articles of Agreement made important changes in the organization and structure of the Fund. As such, the structure of the Fund consists of a Board of Governors, and 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 ad 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 remuner4ation 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 (U.S.A., UK, W.Germany,France and Japan) having the 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.

17.5.2 **STRUCTURE OF THE FUND**:

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 he Executive Board. Besides acting as a Chairman of the Executive Board, the Managing Director is the head of the Fund staff and is responsible for its organization, 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.

17.6 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.

17.6.1. **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 quota 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 land US dollars whichever was less. Under the second Amendment effective from 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 Drawings Rates (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 member's quotas. With the Eleventh eview2 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.

17.6.2 **FUND BORROWINGS.**

Besides performing regulatory and consultative functions, the Fund is an important financial institution. The bulk financial resources come 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 industrialized 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 industrialized 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.

17.6.3 **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 it 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 installments up to 100% of its quota from credit balances. Drawings from credit tranches are conditional because the members have to satisfy the Fund of a 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 of a member country is making particularly strong efforts to correct its balance of payment disequilibrium and adjust its economy.

Other credit facilities: Since the 1960's 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 31/4 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 specialized 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 up to a period of 10 years and loans up to 300 per cent of a member's quota are allowed. It is based ono 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 counties.

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 5 ½ 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 up to 100 per cent of quota over a three-year programme period, with provision for up to 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 the external shocks on account of factors beyond its control. In 1990, the Fund introduced an import element into CCFF for a temporary period up to 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 worker's 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 56 billion to help Russia and other 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 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 weakness. 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.

17,6,4 **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 +/- per cent enquired 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 counter disorderly conditions; and (c) to take into account in their intervention policies the interests of other members.

17.6.5 **OTHER FCILITIES:**

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 baking 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 specially 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.

17.7 Achievements and Failures of the Fund:

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The IMF has been severely criticized 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.

17,7,1 **Fund Conditionalities**: The Fund has developed Conditionalities over the last five decades or so which a country has to fulfill for getting a loan from the Fund. Prior to the 1970's the Fund laid stress on expenditure reduction for meeting disequilibrium in the balance of payments of a country. In the 1970's 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 Conditionality 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 ever 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.

17.7.2 **High interest rates**: Besides, the 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.

17.7.3 **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 the 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 their importance of the Fund.

17.7.4 **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.

17.7.5 **Failure to maintain exchange rate stability**: The Fund has failed in the objective of promoting exchange stability and maintains orderly exchange arrangements among members. Under the original Fund agreements the existing rate was permitted to fluctuate with a range of s1 per cent above the 1 per cent below the official price. This was known as the "adjustable peg" system. The exchange rate of the member country was fixed in terms of the "golden dollar" system. Over the year 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 system of nationally managed floating, joint floating, and pegged exchange rates. According to Prof. Schwartz, the IMF has lost its objective.

17.7.6 **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.

17.7.7 **Discriminatory politics**: The Fund has been criticized for its discriminatory policies against the developing countries and in favour of the developed countries. It is, therefore, characterize 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.

17.7.8 **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 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 the 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.

17.8 **India and 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 16,1948\9, 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. Between1947 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 three-year period beginning from November9, 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 has 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 form the3 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 Fud 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 Services Department, the Fiscal Affairs Department, and the IMF Institute. Thus India has gained much as a member of the Fund.

17.9 Reforms needed at 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. 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 safely 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 reorganizing 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 preset 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 is 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 World Bank.
14. For an effective role as the global monetary and financial system, there should be transparency and accountability of its functioning.

17.10 Summary

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 legalize 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 188.

17.11 **Technical terms:**

1.Exchange Stability

2. Multilateral system

3. International prosperity

4. Short-term credit

5. Lending operations

6. Gold Standard

7. Credit facilities

8. New Economic Policy

9. Creditworthiness

10. International monetary system

17.12. **Self assessment questions;**

1. Explain the Objectives and Functions of IMF?

2. Describe the Organization structure of the IMF?

3. Illustrate the operations of IMF?

4.Explain the achievements and failures of IMF?

17.13. **Reference books:**

1. Simha S.L.N. International Monetary Reform, Vora & Co., Bombay,1973

2. Canyasaiah and Ranganadhachari : Money, Banking, International Trade, and Public Finance , Maruthi Book Depot, Guntur

3. Johnson H.G.; Further Essays in Monetary Economics

4. IMF-Reports

5. www.google.com

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LESSON - 15

International Bank for Reconstruction and Development (IBRD)

18.0 **Objectives:** After reading this lesson the student should be able to

- Know the objectives and structure of the Bank
- Learn the Importance of World Bank in the Monetary system
- Understand the functions of the Bank
- Study the achievements and failures of the Bank
- Apprise the significance of World Bank to the Indian Economy

18.1 **Introduction:** International Bank of Reconstruction and Development (World Bank) is a sister institution of the I.M.F. Both the institutions came into existence simultaneously as a result of the Bretton Woods Conference held in 1944. Though there are several common points between the two institutions, yet there are some fundamental differences in their objectives and functions. The objective of the I.M.F. is to remove the short-term disequilibrium in the balance of payments of the member-countries by lending to them foreign currencies out of its own stock.

The objective of the World Bank, on the other hand, is to eliminate the longing long-terms disequilibrium in the balance of payments of member-countries by advancing long-term loans to them for development purposes. The aim of the Bank is the reconstruction and the development of the economies of the member countries. According to Prof.John H.Williams, the World Bank is even more important than the I.M.F. In view, there would hardly be any need for the Fund if the World Bank were to perform its functions well.

18.1.1 **Organization:** 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 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-President and Directors of various departments and regions. The Board of Governors is the super 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.

18.1.2 **Capital structure:** The IBRD started with an authorized 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 authorized 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.

18.1.3 **Membership**: The members of the International Monetary Fund are the members of the IBRD. It had 182 members in 2000. There were 188 members of the Bank in 2015. If a

country resigns its membership, it is required to pay back all loans with interest on due dates. If he 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.

18.2. Objectives of the IBRD

The various objectives of the World Bank, as incorporated in the Articles of Agreement are as follows:

(1) To help in the reconstruction and development of member-countries by facilitating the investment of capital for productive purposes including the restoration and reconstruction of economies devastated by war.

(2) To encourage the development of productive resources in developing countries by supplying them investment capital.

(3) To promote private foreign investment through guarantees and participation ;in loans and other investments made by private investors.

(4) To supplement private foreign investments by direct loans out of its own capital for productive purposes.

(5) To promote long-term balanced growth of international trade and the maintenance of equilibrium in the balance of payments of member-countries by encouraging long-term international investments.

(6) To bring about an easy transition from a war-time economy to a peacetime economy.

(7) To help in raising productivity, the standard of living and the conditions of labour in member –countries.

The World Bank advances loans to member-countries primarily to help them lay down the foundation of sound economic growth. The loans made by the Bank either directly or through guarantee are intended for certain specific projects of reconstruction and development in member-countries.

18.3 Functions of IBRD:

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 participationin 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 relational loans through other channels so that more useful and urgent small and large projects are dealt with first.

18.4 **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 unutilized access to funds in the markets in which it borrows.

The second objective is to minimize 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 maximize 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 capacity8 to lend at longer maturities than it borrows. At the same time, it provides its borrowers with a modest degree of maturity transformation.

18.5 **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 authorized 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 (FRN) 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.

18.6 **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 of principal payments.

The bank provides the following facilities to member countries:

18.6.1 Structural Adjustment Facility (SAF) Since 1985, the IBRD has introduced SAF to borrowing countries in order to reduce their balance of payments deficits whiulc 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.

18.6.2 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 totaling 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 5 ½ years of disbursement.

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 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 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.

18.6.3 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 review of state enterprises studies to **strengthen development-orientation and project-implementation capabilities, studies to increase** the mobilization of domestic resources, review 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.

18.6.4 **Conditionalities of 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 depoliticized 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.

18.7: **Other activities of the Bank**: The other activities of the IBRD include training, technical assistance, inter-organizational cooperation, economic research and studies, operations evaluation, and settlement of investment disputes of its members.

18.7.1 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.

18.7.2 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) institutijon-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 foro 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 adviser for technology service on evaluation and monitoring panels, and demographic, economic advice on project preparation.

18.7.3 **Inter Organizational co operations**: The IBRD is also engaged in inter-organizational cooperation between IBRD and other international organizations is based on formal agreements such as the Co-operative Programme between it and the FAO, the UNESCO, the WHO, the GATT the UNCTAD, the United Nations Environment Programme (UNEP) the UNDP, the United Nations Industrial Development Organization (UNIDO), the International Fund for Agricultural Development (IFAD), the ILO, the African Development Bank, the Asian Development Bank etc.

18.7.4 **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.

18.7.5. **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 reports. The EDI also includes a course devoted to monitoring and evaluation by borrowers which is conducted by it in collaboration with EDI staff.

18.7.6 **Settlement of Investment Disputes**: The Bank has set up International Centre of Settlement of Investment Disputes (CSID) between States and Nationals of other States. All members of the Bank have signed and deposited their instruments of ratification pertaining to this. The Bank has successfully mediated in solving many international Investment disputes such as the River Water Dispute between India and Pakistan, and of the Suez Canal between Egypt and the U.K.

18.8 **Achievements and Failures of the Bank**: 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 1970's 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 Carribean 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 criticism of its lending policies. Some of them are discussed hereunder.

18.8.1 **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.

18.8.2**. Less Aid to Developing Countries**: The Bank; has also been criticized 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 successfully 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.

18.8.3 **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 utilization of a loan. As the project is completed with the loan assistance, the repaying capacity of the borrower increases gradually.

18.8.4. **Discriminatory:** The Bank has been criticized for being discriminatory in its purpose-wise and region-wise assistance to its members. It is from the fiscal year 1990 that the lending

po9licy 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, sewage, human resources development, environment, etc.

18.8.5 **Hard conditional ties:** 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 installment of SAF is only released after a review of the reform programmes that are date-bound.

18.9 **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 in 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 $1.8billion. The total sanctioned loans received by India till June 2000 was $11.071 million. Of these, outstanding loans stood as $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, aluminum, fertilizers, railway modernization, technical assistance, industrial development, finance corporation, 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, 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.

18.10. **Summary:** 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 totaled $ 18.5 billion.

18.11 **Technical Terms:**

1. Balanced growth

2.International Monetary cooperation

3. Exchange Stability

4. Multilateral system of payments

5. International prosperity

6. short-term loans

7. Monetary policy

8. Fiscal policy

9.Fund Borrowing

10. structural adjustment Facility

18.12. **Self assessment questions:**

1. What are the main objectives behind the establishment of the IMF? How far the Fund has been successful in achieving these objectives?

2. Explain the Functions of IBRD?

3. Describe the achievements and failures of the IBRD?

4. Describe the relation between India and IBRD?

5. Explain the recent strategies of IBRD?

18.13 **Reference books;**

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2. Mithani, D.M. International Economics

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5.Gupta, K.R. International Economics, Atmaram & Sons, Delhi

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LESSON - 16

International Finance Corporation

19.0 **Objectives:** After studying this lesson the student should be able to

- Know the need for establishment of I.F.C
- Understand the organization and structure of I.F.C
- Study the main functions of I.F.C
- Learn the relationship between India and I.F.C
- Observe how I.F.C. providing financial assistance to Private enterprises

19.1 **Introduction:**

The International Finance Corporation (I.F.C.) is an affiliate of the World Bank. It was established on 20th July 1956 with the object of assisting private enterprises in developing countries by providing them with the risk capital. The World Bank grants loans only to member-governments or to private enterprises with a guarantee of the member-governments concerned. Again, the World Bank provides only loan capital to private enterprises. It does not provide risk capital to the private enterprises in member-countries. In fact the development of private enterprises is held up for lack of adequate risk capital. Hence, there was an; urgent need for some international financial institution which would be willing to provide risk capital to the private industrial undertakings in developing countries. The I.F.C. was set up to meet this particular requirement of private industrial undertakings.

19.2 **Organization:** 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 organizational 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 ex0officio Chairman of the Board of Directors of the IFC. But the Corporation has eight departments. Of these four relate to investment which functions on geographical basis. The remaining four departments relate to capital markets, finance and management, legal matters, and engineering which operate on functional basis.

19.2.1 **Membership:** As already pointed out; above, the I.F.C. is an affiliate of the World Bank. Its membership is separate from that of the World Bank. But it is only the members of the World Bank who can become members of the I.F.C. It is not essential that all the members

of the World Bank should also be the members of the I.F.C. In fact, the membership of the I.F.C. is optional for the members of the World Bank. In fact, the number of members of the I.F.C. was 110 on 30th June 1986.

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.

19.2.2 **Financial Resources**: The Corporation was started in July 1956, with an authorized capital of 100 million Dollars. This capital has been increased from time to time to meet the increasing requirements of the Corporation. On June 21, 1984, the Board of Directors approved a proposal to double the authorized capital of the I.F.C. to 1300 million Dollars. This capital increase was agreed to by the Board of Governors, on December 26, 1985. It would provide the financial support for the growth and diversification of I.F.C's activities. The Corporation has also been borrowing funds from the World Bank to supplement its financial resources. Up to 30th June 1986, it had borrowed 400 million Dollars from the World Bank in four loans. The aggregate resources of the I.F.C. stood at 1300 million Dollars on 30th June 1986.

In the beginning the authorized capital of the IFC was $ 100 million which was divided into 1,00,000 shares of $1000 each. At present, its authorized 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.

19.3 **Objectives of the IFC:** The main objective of the I.F.C. is to accelerate the pace of economic development of the member-countries. The objectives for which the IFC was set up have been laid down in Article 1 of its Articles 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 Governments concerned, in case 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".

19.4 **Investment Criteria:** While extending financial assistance to private enterprises, the Corporation keeps the following points in view:

(1) The borrowing enterprise should be expected to make profits in course of time. In fact, profitability is an essential criterion for loans to be made by the I.F.C.

(2) The borrowing enterprise should be ;such as to make a definite contribution to the economic development of the country in which it is located.

(3) The Corporation is prevented by its Charter to invest more ;than 22 million Dollars in any single venture.

(4) The Corporation can make investment in a private enterprise only if more than 50 per cent of the capital is forthcoming from that enterprise itself.

(5) So far as the equity is concerned, the Corporation cannot provide more than 25 per cent of the aggregate capital of the borrowing enterprise.

19.5 **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:
(1) 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.

19.5.1. **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 Corporation 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.

19.5.2 **Foreign and Local Capital:** The IFC participates in promoting productive private investment in developing countries b 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.

19.5.3 **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 p0olicy assistance to member governments so that they may develop the necessary investment climate to attract foreign and local private enterprise.

19.5.4. **Capital Market Development**: The Corporation has a Capital Markets Department which provides specialized 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.

19.5.5. **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 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.

19.6 **Review of the working of IFC:**

From 1956 to 30th June 1986 the total financial assistance given for 302 development projects in the private sector in 80 developing countries amounted to 2400 million Dollars. The regional distribution of this amount was as follows: 39.5 per cent to Latin America, 28 per cent to Asia, 17.5 per cent to Africa and 15 per cent to Europe. The industries aided by the Corporation; included paper, cement, textiles, iron and steel, fertilizers, chemicals, mining, food processing, public utilities, printing, publishing and tourism. The Corporation also provided funds to the developing countries for the development of money and capital markets.

Attempts have also been made from time to time to increase the capital resources of the I.F.C. to meet its increasing requirements. The Article of the Agreement of the World Bank and the I.F.C. were amended in October 1966, to enable the I.F.C. to borrow funds from the World Bank. According to this amendment the I.F.C. could borrow up to 400 million Dollars from the Bank to enable it to use its entire share capital and reserves for making equity investment in private industrial undertaking. During the fiscal year ending 30th June 1986 the Board of Directors proposed doubling of the I.F.C. share capital to 1.3 billion Dollars.

The Indian projects, in which the I.F.C. invested 43 million Dollars, were Bajaj Auto Ltd's 169.6 million Dollar project to manufacture 3,75,000 motor cycles and scooters annually; for Bihar Sponge Iron Ltd's 1,50,000 tonnes-a-year sponge iron plant and for Gwalior Rayon Silk Manufacturing (Weawing) company Ltd's 5,00,000 tonnes-a-year expansion of its new Khor (Madhya Pradesh) Cement Plant.

The IFC Annual Report for 1986 stated that the Corporation would hereafter be more responsive to the needs of the private sector investors in developing countries including India.

The I.F.C.s five-year programme (1985-89) envisaged investment of 7000 million Dollars. This programme called for increased emphasis on four activities, all of which necessitated a significant increase in equity investment by the Corporation; increased activity in sub-saharan Africa, oil and gas exploration and development, Corporate restructuring assistance and expansion of I.F.C.'s technical and financial capital market assistance.

The Annual Report for 1986 showed a continuous emphasis on lower income developing countries. In 1986, 33 projects were in countries with a per capita income of 800 Dollars or less. In sub-Saharan Africa, a high priority area under the 5- year programme, 16 projects were approved by the Board.

The I.F.C. had made a total investment of 207 million Dollars in India up to June 30, 1986 in 14 Indian manufacturing enterprises, such as, steel forgings, diesel engines, roller bearings and other components used in tractors, motor vehicles, pumps etc., electric cables, textile machinery fertilizers, and an alloy steel plant.

During the fiscal year, 1986 (July 1985-June 1986) the I.F.C. approved 85 investments in 39 developing countries and one region for an aggregate investment of 1156 million Dollars. During the same year, total disbursements of committed loans and equity investments amounted to 324.8 million Dollars.

The I.F.C. had drawn up a 5 year programme which aimed at increasing the volume of loans and equity investments with a view to promoting the private sector in developing countries.

Mr. William Ryrie, Executive Vice-President of the I.F.C. during a visit to India in October 1986 offered to double I.F.C.'s investments in India which at the moment accounted for only six per cent of its total loans. The I.F.C., he suggested, could also play a significant role in transferring sophisticate technology to India through sponsorship "because of its unrivalled connections". Mr. Ryrie also offered to help India in modernizing its capital market and getting its stock markets computerized. The I.F.C. announced in September 1989 its willingness to increase lending to India to a level between 200 to 300 million Dollars a year.

19.7 **Achievements and Failures of IFC**: The working of the I.F.C. has been subjected to the following criticism:

(1) **Inadequate Resources**. The Corporation suffers from a serious shortage of investible resources. As such, it is not in a position to meet the loan requirements of the member-countries in full. The total credit assistance granted upto 30th June 1984, was of the order of 2300 million Dollars. This amount appears to be insignificant when we take into account the increasing financial requirements of private enterprises in developing countries.

(2) **Stiff Terms of Loans**: The Corporation generally imposes stiff conditions on the borrowers at the time of giving loans to them. For example, the Corporation requires the borrowers to repay the principal and the interest thereon in terms of American Dollars only. Obviously this condition cannot be easily fulfilled by developing countries which are already confronted with serious Dollar shortage.

(3) **High Interest Rates**. The Corporation charges an interest rate varying between 6 to 7 per cent on its loans. The rate is certainly a high rate of interest for developing countries. The objective of the I.F.C. is not to earn profit but to render the maximum financial assistance to the largest number of developing countries.

(4) **Discriminatory treatment**: The Corporation has also been accused of practicing discrimination against the countries of Asia and Africa. A major portion of loan assistance has gone to Latin American countries which happen to be members of the American Bloc.

Despite the above criticisms the I.F.C. has played a useful role in stimulating the flow of capital, both domestic as well as foreign, to private business enterprises in developing countries. Though its own credit assistance is rather modest, main success lies in encouraging the flow of private capital from the developed to the developing countries.

19.8 **India and IFC:** India is a founder of the IFC. She has been receiving assistance in a variety of areas from the IFC since its inception. There include automobiles, shipping, electricity, cement, fertilizers, 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, polyster and textiles, agribusiness exports etc.

19.9 **Summary:** 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.

19.10 **Technical Terms;**

1. Productive investment
2. Private capital
3. Direct investment of IFC
4. Technical Assistance of IFC
5. Capital market development
6. Partnership
7. Risk capital
8. Legitimate business expenditure
9. Foreign capital
10. India and IFC

19.11 **Self assessment questions:**

1. Explain the organization and structure of IFC?
2. What are the objectives of IFC?

3. Describe the main functions of IFC?

4. Explain the relationship between India and IFC?

19.12 **Reference books;**

1. I.M.F and World Bank, Finance and Development, Vols. 1-8

2. World Bank Annual Reports

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LESSON - 17

International Development Association

20. O. Objectives:

The Objectives of this Unit are to give you an understanding:

- Know the origin, organization and functions of IDA
- Learn the objectives and financing of IDA
- Understand the relations of India and IDA

- Study the role of IDA in International Monetary system

20.1 Introduction:

The establishment of the International Development Association (I.D.A) was another step in the direction of increasing international liquidity in the World. The International Development Association was established in September, 1960 as an affiliate of the World Bank. It provides soft loans to the member countries and also said it is "Soft loan window of the IBRD. In other words, the object of the I.D.A., was to provide loans to the member countries on liberal terms with regard to the rate of interest and the period of repayment. The interest charged on the I.D.A. loans was lower than that of the World Bank. Further, the borrowing countries were allowed longer periods, say 50 years or so, for repayment of loans. Besides, the loans taken by member-countries could be repaid in their own national currencies. They were under no obligation to repay the loans in hard currencies as was the case with the World Bank. It is on this ground that the IDA is often referred to as the "Soft loans Window" of the World Bank.The President of the World Bank is its head. The IDA was started for providing soft loans, as different from conventional loans which IBRD provides, to economically sound projects which create "Social capital" such as the construction of roads and bridges, slum-clearance and urban development, sanitation and so on. IDA's assistance is concentrated on the very poor countries mainly those with an annual per capital gross national product of less than 520 dollars.

20.1.1 IDA- Organization:

The organization 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. Its Annual Report forms part of the World Bank Report and is submitted simultaneously.

The IDA has a Board of Governors, Executive Directors and a president, all of whom are holders of that position in the Bank, serving ex-officio in the IDA. The membership of the IDA is open to all member countries of the World Bank and 120 of them have joined to date. The IDA's subscriptions are roughly proportionate to subscriptions to the Bank's capital. As in the bank, the voting rights are roughly proportionate to subscriptions.

20.1.2 IDA- Membership

The membership of the IDA is open to all members of the World Bank. In June 2001, it had 182 members. The members of the IDA are divided into two parts. Part-I countries are developed countries which are required to pay the subscription in gold or freely convertible currencies. Part-II countries are less developed countries which are required to pay 10 percent of their subscription in gold or freely convertible currencies, and the remaining 90 percent is payable in their own currency. As per the Articles of association of the IDA assesses countries based on their per capita income, lack of access to private capital markets, and policy performance in implementing pro-growth and anti-poverty economic or social reforms.

20.2 Objectives of IDA:

The international Development Association has been formed "to promote economic development, increase productivity and thus raise standards of living in the less developed areas of the World included within the association membership, in part and by providing finance to meet their important development requirements on terms which are more flexible and bear less heavily on the balance of payments than that of conventional loans, thereby furthering the development objectives of the IBRD and supplementing its objectives."

Besides, the Articles of Agreement mention clearly that IDA financing shall be for purposes which "are of high developmental priority in the area or areas concerned and except in special circumstances--- for specific projects." The IDA is authorized to finance "any project----- which will make an important contribution to the development of the area or the areas concerned, whether the project is revenue producing or not or directly productive. Thus projects such as water supply, sanitation, and housing and like are eligible for financing." In other words, the important stipulation of the articles of Agreement is that the projects should be of "high developmental priority."

IDA aims to reduce poverty by providing interest free credits and grants for programs that boost economic growth, reduce inequalities and improve people's living conditions. 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 removal of poverty.

20.3 Functions of IDA

The main function of IDA is providing loans to developing countries to remove poverty and development of infrastructure and health facilities. The IDA loans are known as “credits” which are made to governments only. At present, countries with per capita income of less than 695 dollars at 1990 prices can borrow from it. Before approving a credit, the special committee of the IDA considers three criteria;

1. Poverty Criterion: A country where population pressure is high and productivity is low, thereby leading to a low standard of living of the people.

2. 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.

3. Project Criterion: The projects for which credits are to be utilized must yield financial and economic returns to justify them.

On the basis of these criteria, the IDA sanctions loans to Developing countries for agriculture, education, health, nutrition, water supply, sewerage, and infrastructure. Such credits which are known as “soft loans”.

20.4 IDA- Financial Resources

The financial resources of IDA include the initial subscriptions from members, general replenishments from its more industrialized members, transfers from the net earnings of the World Bank.

The IDA's funds are obtained from three main sources a) member's subscriptions, b) periodic replenishments provided by richer members and certain special contributions and c) transfer of income from the IDA credits. While IBRD raises most of its funds on the world's financial markets, IDA is funded largely by contributions from the governments of the richer member countries. Donors get to gather every three years to replenish IDA funds. 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 percent in convertible currencies or gold and 90 percent in their own currencies.

Aside from their contributions under replenishment agreements, a number of countries have agreed over the years to make voluntary increases and special contributions in excess of their normal shares. Since 1964, the IDA has received regular support from the IBRD through the transfer of some of its net income not needed for the Bank's purposes.

The total funds including member's subscriptions and other supplementary resources of the I.D.A. amounted 10 11,855 million Dollars on 30th June 1986. The Seventh Replenishment of the I.D.A. funds was intended for the period July 1984 to June 1987 for a period of three years. The World itself had set 16 billion Dollars as the target sum for the 7th Replenishment. But owing to the recalcitrant attitude of the U.S Government, the target had to be scaled down to 9 billion Dollars, with the annual U.S contribution reduced to 750 million Dollars instead of the proposed 950 million Dollars by the U.S.A The reduced size of the 7th Replenishment at 9 billion Dollars cast a shadow of disappointment among the developing countries of the Third World. The size was even smaller than the 12 billion Dollars size of the 6th Replenishment. It was too small even to meet the barest requirements of the developing countries. Attempts to raise the 8th Replenishment of the I.D.A. had begun in the early part of 1986.The necessary resources will be channeled over the member-countries about the size of the 9th Replenishment of I.D.A The I.D.A. extended its credits to more than 90 developing countries. up to 1989.-2013

20.4.1 IDA-Financing policy

The Financial assistance, which IDA grants, has three distinct features, they are outlined as follows:

a) IDA's credit is interest free, only a small service charge is payable annually on the amounts.
b) The repayment period is very long- fifty years.
c) The repayment of the loan generally will begin only after a ten- year period of grace and is in very small percentage, from one to three percent a year after a period of grace is over. It is for these reasons that IDA's loans are called soft loans.
d) The IDA grants loans for projects whether they are directly productive or not.
e) The IDA loans are generally repayable in foreign exchange.
f) IDA loans are granted to the government of the country concerned.

IDA's financial assistance may be extended to a member- government, or to the government of a territory included within IDA's membership, to a public or private entity or organization. Unlike IBRD, IDA may not ask for the guarantee of the member government when loans are made to other agencies, it also co-operates with other public international bodies and member-countries providing financial and technical assistance to the less developed countries.

20.5 IDA Assistance: The I.D.A. provides to the member-countries "soft loans" which are generally interest-free loans. But there is a nominal service charge on the amount of outstanding loans. This charge is intended to cover the administrative expenses of the I.D.A. The I.D.A. as already said, provides long term loans repayable over a period of 50 years with an initial grace period of 10 years. No repayment is to be made during the initial period of 10 years. Afterwards 1 percent of the principal amount of the loan is repayable annually for a period of 10 years and during the next 30 years; the balance of the outstanding loan is to be amortized at an average rate of 3 percent per annum. The I.D.A. provides loans for such projects as water supply, sanitation, health, education, urban development, etc. which do not make immediate contribution to the economic development of the country. India was the largest recipient of credit from the I.D.A. in view of its large size , natural resources and population. India has thus received quite a substantial aid from the I.D.A. for its development projects.

During 1985-86, the I.D.A. approved a total lending of 3140 million Dollars for the various member-countries. Of this, India's share was 625 million Dollars which was distributed as follows: Agriculture and Rural Development-471 million Dollars: population, Health and Nutrition—51 million Dollars: water supply and sewerage—41 million Dollars.

The I.D.A. has, undoubtedly, played a useful role providing credit assistance to developing countries on liberal terms, since its inception in 1960. But the I.D.A. has been able to extend aid to the developing countries on a somewhat modest scale in view of the limited resources at its disposal. No doubt, its resources have been increased from time to time as a result of various replenishments, but the fact remains that the resources at the present moment are not at all commensurate with the increasing requirements of the developing countries.

20.5.1Third Window of the World Bank

As already said, the World Bank lends to member-countries on somewhat stringent conditions, but its affiliate—the International Development Association(IDA) is prepared to advance loans to developing countries on very soft terms..The I.D.A both charges no interest or charges very nominal interest on its loans and advances to developing countries. The amount of financial assistance available to the developing countries from the World Bank and the I.D.A. was rather inadequate. To step up this assistance, the World Bank as well as the I.M.F. pooled their resources to open a Third Window in 1975 for the benefit of developing countries. Additional loans were to be given to developing countries from this window. The loans from this Window were to be given on intermediate terms. In other words, the terms would neither be as stringent as those of the World Bank nor as soft as those of the I.D.A. This Third Window of the World Bank had been approved for one year only. Its tenure could be extended further if the members agree to do so. The developing countries could secure from this Window loan assistance varying from 500 to 1000 million Dollars for their development projects. To feed this Window, a separate fund knows as Special Subsidy Account had been set up by the World Bank. Contributions from richer member-countries were to be credited to this Account. The loans to developing countries were to be given out of this Account. Likewise, the World Bank has also opened a Special Interest Subsidy Account which was to be utilized to provide financial assistance to debtor countries to enable them to pay interest on loans obtained through the Third Window. On every loan contracted by a developing country, an interest equivalent to 4 percent per annum was payable out of this Account. The difference between this interest of 4 percent and the standard interest rate chargeable by the World Bank on its loan was to be paid by the developing country contracting loan through this Third Window. Thus, the Third Window provided loans to developing countries at subsidized interest rates. The developing countries with an annual per capita income of 375 Dollars or less stood to gain special benefits out of loans contracted from the Third Widow. Nearly 39 developing countries were qualified to secure loan assistance from the Third Window during 1976. They included countries like India, Pakistan, Sri Lanka, Ghana, etc.

20.5.2 Achievements of IDA

One of the World's largest sources of aid, IDA provides support for health and education, infrastructure and agriculture, and economic and institutional development to the World's poorest.

- 3.5 million teachers recruited and/or trained in 2002-2012
- 117 million people with access to health services in 2003-2013
- 597 million children immunized in 2003-2013
- 116,000 km of roads built or fixed in 2002-2012
- 123 million people with access to water sources in 2002-2012
- 195 million women received pre natal care in 2003-2013.

20.6 India and IDA

IDA is viewed as a means of furthering the development activities of the World Bank and as a supplement to the Bank's activities.IDA has granted a number of credits to India for her development schemes. The grant of credit for development projects given by IDA to India has been in the nature of continuous flow.

Up to 1979-80, India had been the single largest beneficiary of the IDA assistance which was 40 percent of the total credits committed to less developed countries. 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 percent of the total assistance. From 1985 onwards, it has ranged between 15 to 20 percent every year. During 2000, India received 1.2 billion dollars interest free IDA loan for elementary education, health, nutrition food society, social safety program, environment security and supervision etc.

In conclusion it may be stated that IDA is expected to make a distinct contribution to the economic development of backward nations, furthering their development projects and supplementing the activities of World Bank.

20.7 Summary

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 Developing countries has

been reduced to half of what it was earlier. The average life expectancy has increased by 13 percent, and the adult literacy rate has risen to 60 percent.

Despite, these achievements the IDA has not been able to render development assistance for the complete removal of poverty in developing countries due to lack of resources. The developed countries, especially the USA, have been the stub ling blocks in increasing the IDA assistance to the developing countries had fallen from 100 percent in 1988 to 85 percent in 2000. According to recent World Bank assessment, out of 350 projects of IDA- supported in developing countries, only 59 percent performed satisfactorily due to the efforts of governments of developing countries. Still it has been successful in acting as a catalyst for their development.

20.8 Technical terms

1. Credits,
2. Replenishment,
3. Convertible currencies
4. Project,
5. Soft Loan
6. Soft Window
7. Assessment
8. Developing countries
9. Development project
10. Third Window of the World Bank

20.9 Self assessment questions

1. What are the objectives of the IDA?
2. Explain the Financial policy of the IDA?
3. Describe the role of IDA in development of Third world Countries?
4. Illustrate the relationship between India and IDA?

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