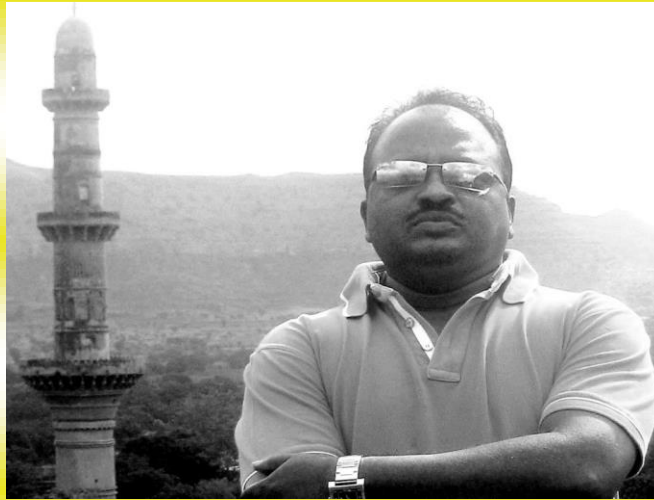


BUSINESS ECONOMICS – III

TY B COM (SEM-VI)



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SEMESTER - SIX

Module 1 – INTERNATIONAL TRADE.

CHAPTER – 1

THEORIES OF INTERNATIONAL TRADE

PREVIEW.

- The theory of comparative cost advantage.
 - The Heckscher-Ohlin theory of International Trade.
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THE THEORY OF COMPARATIVE COST ADVANTAGE.

The comparative cost advantage theory of international trade was put forward by David Ricardo in his well-known work 'Principles of Political Economy', 1817. David Ricardo based his theory of comparative cost advantage on his labor theory of value. According to the labor theory of value, the value of any product can be determined by the labor content or the labor cost and the exchange of goods take place because of the relative content of labor in the products. If the prices of products in each industry are higher than the labor cost, it will attract labor from other industries and the supply of products will increase until the prices become equal to labor cost. The principle of labor cost assumes that labor is the only productive factor, that it is homogeneous, perfectly mobile between occupations and regions within a country and that there is perfect competition in the labor market. Since the factors of production are immobile between countries, the labor theory of value was found to be inadequate to explain international trade. To explain the basis of international trade, David Ricardo put forward the theory of comparative cost advantage.

According to the doctrine of Comparative Cost Advantage, international trade takes place because every country has different advantages in the production of different products. A country will specialize in the production of that product in which it has a greater comparative advantage or her comparative disadvantage is the least. A country will therefore export the product in which it has comparative advantage and import the products in which it has less comparative advantage or has a comparative disadvantage.

David Ricardo's Theorem of Comparative Cost Advantage.

“Other things being equal, a country tends to specialize in and export those products in the production of which it has maximum comparative cost advantage or minimum comparative disadvantage. Similarly, the country's imports will be of products having relatively less comparative cost advantage or greater disadvantage.

David Ricardo's Model of Comparative Cost Advantage.

David Ricardo put forward a two-countries, two products and one factor model. He made the following assumptions to explain his doctrine of comparative cost advantage:

1. Labor is the only productive factor.
2. Production cost is measured in terms of labor content in the products.
3. Labor is perfectly mobile between occupations and regions within a country but immobile between countries.
4. Labor is homogenous.
5. The Doctrine of Free Trade is observed by the countries involved in trade.
6. There are constant returns to scale.
7. There is full employment in the economy, and
8. There is perfect competition.

Illustration.

The theory of comparative cost advantage can be illustrated by assuming that there are two countries A and B and two products X and Y with production cost being measured in labor units. The theory proves the fact that international trade is possible even when there is no absolute cost difference in the production of products in two countries. Obviously, if the production cost is equal in two countries, no trade will take place. Hence, all the three cost conditions are illustrated in Tables 12.1, 12.2 and 12.3.

Absolute Cost Difference and Absolute Cost Advantage.

The absolute cost advantage theory of international trade was put forward by Adam Smith. According to Smith, a country will specialize in the production of that product in which she has an absolute cost advantage over the other country. The theory of absolute cost advantage is illustrated in Table 12.1. Country A has an absolute advantage over B in the production of X and country B has an absolute advantage in the production of product Y. Hence, country A will specialize in product X and country B will specialize in product Y and both countries will trade products X and Y in the ratio 1:1 and gain 0.5 units more as the domestic cost ratio between X and Y in Country A is $1X = 0.5 Y$ and in Country B is $1Y = 0.5X$.

Table 12.1: Absolute Cost Difference (Cost of Production in Labor Units).

	Country A	Country B	Comparative Cost Ratio
Product X	100	200	$100/200 = 0.5$
Product Y	200	100	$200/100 = 2$
Domestic Exchange Ratio	$1 X = 0.5 Y$	$1 X = 2 Y$	

Equal Cost Difference and Absence of Any Advantage.

According to David Ricardo, if there is equal cost difference or that if the domestic cost ratio is same in two countries, trade will not take place between them. Such a situation is illustrated in Table 12.2.

Table 12.2: Equal Cost Difference (Cost of Production in Labor Units).

	Country A	Country B	Comparative Cost Ratio
Product X	100	150	$100/150 = 0.66$
Product Y	200	300	$200/300 = 0.66$
Domestic Exchange Ratio	$1 X = 0.5 Y$	$1 X = 0.5 Y$	

Comparative Cost Difference and Comparative Cost Advantage.

Countries specialize in the production of certain products because of comparative cost advantage. The competitive advantage of nations therefore lies in comparative cost advantage. Comparative cost difference is illustrated in Table 12.3.

Table 12.3: Comparative Cost Difference (Cost of Production in Labor Units).

	Country A	Country B	Comparative Cost Ratio
Product X	100	150	$100/150 = 0.66$
Product Y	200	250	$200/250 = 0.80$
Domestic Exchange Ratio	$1 X = 0.5 Y$	$1 X = 0.6 Y$	

Country A has an absolute advantage in the production of both the products whereas Country B has an absolute disadvantage in the production of both the products. But, Country A has a comparative cost advantage in product X because her labor cost is 66 per cent of Country B's labor cost whereas in case of Product Y, the comparative cost ratio is 80 per cent. The comparative cost advantage in Product X is therefore higher than that of Product Y. In contrast, Country B has least comparative disadvantage in Product Y as compared to Product X because the cost of production of Product X is 50 per cent more and that of Product Y is only 25 per cent more than that of Country A's cost.

Country A will therefore specialize in Product X and Country B will specialize in Product Y. Both the countries will gain if they enter trade. Country A will gain if it gets 1Y for less than 2X and Country B will gain if it gets more than 1.66X for 1Y. If the terms of trade between the two countries is settled in the ratio $1Y = 1.83X$ then Country A will save 0.17 X for every one unit of Y imported and Country B will gain 0.17X for every one unit of Y exported.

Critical Analysis of the Theory of Comparative Cost Advantage.

The theory of Comparative Cost Advantage put forward by David Ricardo is a logical explanation of the competitive advantage of nations in the sphere of international trade. Prof. Samuelson making observation on the theory says, “The theory of comparative advantage has in it a most important glimpse of truth.... A nation that neglects comparative advantage may have to pay heavy price in terms of living standards and potential rates of growth”. Thus, it is not denying the fact that world trade based on comparative advantage would lead to greater output of goods and services and greater economic welfare than without it. However, the theory is not without its own limitations. Economists like Bertil Ohlin and Graham have made most severe criticisms of the theory. The criticisms and limitations of the theory brought out by these and other economists are as follows:

1. **The Theory is based on the outdated Labor Theory of Value.** All value can be attributed to labor in the historical sense. However, the creation of value is attributed to the four factors of production. It will also be difficult to determine the embodiment of labor in land, capital and enterprise. Hence it would be appropriate to determine the monetary cost of value creation. Further, labor is not homogeneous both within and without an industry and therefore wages are not uniform.
2. **Unrealistic Assumptions.** Assumptions made by David Ricardo to explain his theory are unrealistic. Labor is not perfectly mobile both within and without a country. Ricardo assumed that while labor is perfectly mobile across industries and regions within a country, it is perfectly immobile between the countries. This assumption regarding the mobility of labor is wrong. In reality, labor is not perfectly mobile both within and without a country. To impart occupational mobility to labor, labor needs to be retrained and redeployed and geographical mobility of labor depends upon its attitude. Attitudes are subjective and hence labor cannot be perfectly mobile between regions within a country. Further, labor has become imperfectly mobile between countries in the modern times. The assumption of constant costs is incorrect because as the scale of output increases, costs would change. Under increasing cost conditions, the possibility of specialization would be reduced.
3. **International Division of Labor is not possible.** According to Frank Graham, international division of labor is not possible in the world because size and requirements of different countries are different. It is not practical for a large and populous country to depend upon only on one country for the import of goods in which it does not have a comparative advantage. In fact, a country would diversify its sources of supply of both raw materials and finished goods and while doing this, may sacrifice comparative cost advantage.
4. **Transport Costs are not considered in the Theory.** David Ricardo ignored the element of transport costs while determining comparative cost advantage. Trade would take place only if the comparative advantage is greater than the transport cost.

5. **The Theory is Unrealistic and Static.** According to Bertil Ohlin, the principle of comparative cost is applicable to all trade and not to international trade alone. It is unrealistic because it is based on two products and two country model. It is static because it cannot explain the trade dynamics of the modern world. David Ricardo ignored the demand side of the theory and concentrated only on the supply side i.e. the comparative cost.

Conclusion.

Notwithstanding the criticisms made and limitations of the theory, the principle of comparative cost advantage is fundamental to international trade. In the absence of comparative cost advantage, trade between countries would be futile. By expounding the principle of comparative cost advantage, David Ricardo has also expounded the principle of Free Trade, a principle that has now engulfed the 21st century world. Appreciating David Ricardo's contribution to international trade theory, Prof. Samuelson observes, "Whether or not one of two regions is absolutely more efficient in the production of every good than is the other, if each specializes in the products in which it has a comparative advantage, trade will be mutually profitable to both regions. Real wage of productive factors will rise in both places."

THE HECKSCHER-OHLIN THEORY OF INTERNATIONAL TRADE.

The modern theory of international trade, known as the Heckscher and Ohlin Approach to International Trade is also known as the General Equilibrium theory. The modern theory explains the causes of comparative cost advantage as these were not explained by David Ricardo. The following assumptions are made:

1. Trade takes place between two countries and only two commodities produced by two factors of production namely labor and capital.
2. Consumer tastes are identical in the two countries but their factor endowments are different.
3. There is perfect competition in both the factor and product markets and there is full employment.
4. There is free trade and transport costs are absent.
5. Factor inputs are more mobile within the country than between the countries.
6. Factor intensities are different in both the commodities.

The Concept of Factor Abundance.

The modern theory states that countries specialize in the production of those products which they can produce by using factors abundant in supply in a higher proportion. In this, two countries, two commodities and two factor model, a capital abundant country will produce and export

capital intensive product and a labor abundant country will produce and export labor intensive product.

The Price Criterion of Factor Abundance.

Factor abundance by factor prices can be explained as follows. Let us assume that there are two countries; Country I and Country II. Let us assume that price ratio of capital and labor in Country I is lower than Country II. Symbolically, this situation can be expressed as follows:

$$\frac{P_{K1}}{P_{L1}} < \frac{P_{K2}}{P_{L2}}$$

Where P_{K1} = the price of capital in Country I.
 P_{L1} = the price of labor in Country I.
 P_{K2} = the price of capital in Country II.
 P_{L2} = the price of labor in Country II.

Capital is relatively cheap in Country I and is therefore considered abundant in capital. In contrast, labor is relatively cheap in Country II and hence is considered abundant in labor. According to the Hecksher-Ohlin theory, a country will specialize in those products which can be produced by employing the abundant factor in a larger proportion. Thus, Country I will produce and export capital intensive products and Country II will produce and export labor intensive products.

The Hecksher-Ohlin theory can be diagrammatically represented as in Figure 12.1. In this figure, two Isoquants AA and BB are common to both the countries and represent one unit of Product A and B respectively. Product A is capital intensive and product B is labor intensive. In Country I, capital is abundant and cheap and the relative factor prices are indicated by the line P_1P_1 . Since isoquant AA represents only one unit of Product A and factor price line P_1P_1 is tangential to this isoquant at point R, it is seen that one unit of Product A can be produced by OK_1 of capital and OL_1 of labor. However, the two factors; capital and labor can be exchanged for each other in a ratio indicated by the slope of factor price line P_1P_1 . This means that OL_1 of labor will be exchanged for K_1C of capital and OK_1 of capital will be exchanged for L_1D of labor. The factor price line P_1P_1 can also be considered as the cost line CD and cost of producing both A and B can be expressed in terms of capital alone or labor alone. Let us consider Product A. Cost of producing one unit of product A in terms of capital alone is OC and in terms of labor it is OD. In respect of commodity B in Country I, the cost of producing one unit of B in terms of capital alone or labor alone is the same as that of producing one unit of product A.

In Country II, labor is abundant and therefore cheap. The factor price line for Country II is less steep or flatter than Country I. The factor price line for Country II is P_2P_2 . It is tangential to isoquant AA at point M. Another factor price line P_3P_3 is below P_2P_2 and is parallel to it. It is tangential to isoquant BB at point N. From this we find that while the cost of producing one unit of A in terms of capital in Country II is OE, the cost of producing one unit of B in terms of capital remains only OF. Thus, in country II, a given amount of Product B can be produced at a lower cost than the same amount of Product A.

Country I abundant in capital will specialize in the production of capital intensive Product A and export it and in return import labor intensive Product B from country II which specializes in its production due abundant supply of labor.

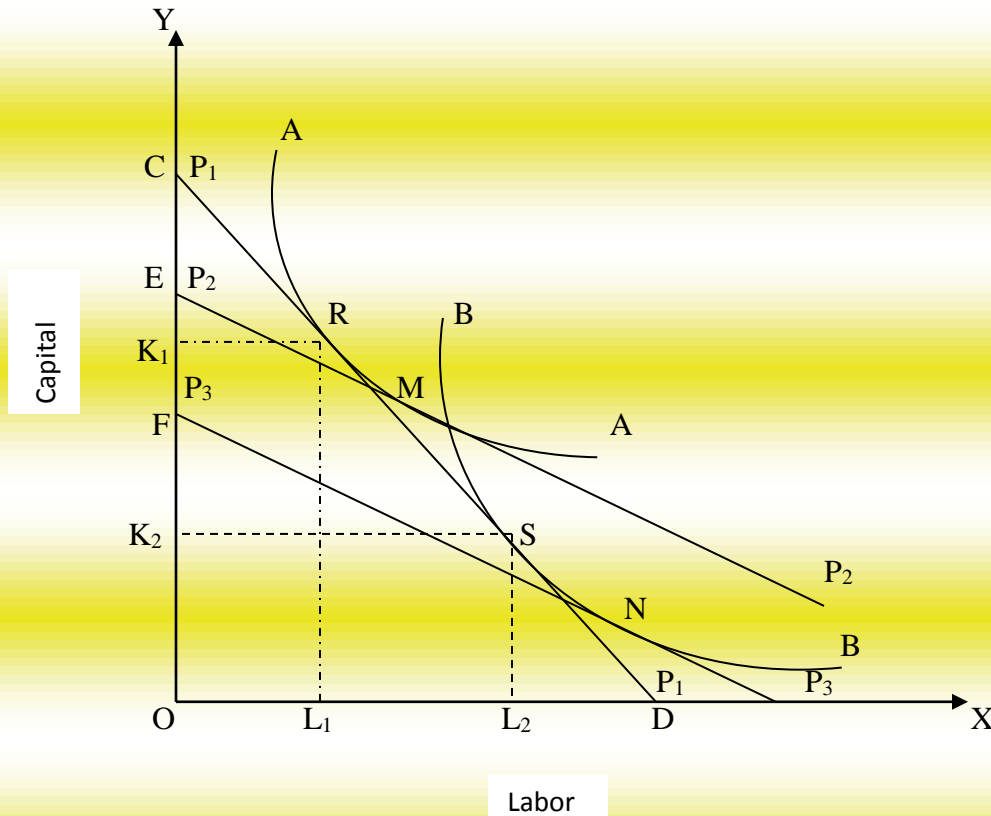


Fig.12.1: Factor abundance in terms of Factor Prices.

COMMODITY & FACTOR PRICE EQUALIZATION.

Commodity Price Equalization.

In the absence of trade, prices of different products in different countries will not be the same due to different factor endowments. Let us assume that Country I has a comparative cost advantage in Product A and this advantage is not offset by the demand factors. Hence, it exports product A to Country II. Similarly, Country II exports Product B to Country I. The opening of trade will therefore disturb the relative prices in the two countries. In Country I, price of Product A will begin to rise due to exports to Country II. In country II, the price of A will fall due to increased supply resulting from imports. Price of A in Country II will continue to fall until it becomes equal in both the countries. The trade will equalize price of B in the same manner in both the countries. Exports of B from country II will lead to higher price in Country II and a lower price in Country I due to imports. This process will continue until the price of B becomes equal in both the countries. It can be concluded that if international trade is free from trade barriers, it has a tendency to equalize the commodity prices in all the countries which participate in trade. Symbolically, commodity price equalization can be expressed as follows:

$$\frac{P_{1A}}{P_{1B}} = \frac{P_{2A}}{P_{2B}}$$

Where P_{1A} = the price of product A in Country I.
 P_{1B} = the price of product B in Country I.
 P_{2A} = the price of product A in Country II.
 P_{2B} = the price of product B in Country II.

Factor Price Equalization.

In the absence of trade, each country will produce both the commodities. However, Country I will use capital intensive techniques to produce both the products and country II will employ labor intensive techniques to produce both the products. A country using relatively more a factor will have lower marginal productivity. Hence, the marginal productivity of capital in Country I will be lower than Country II and vice versa. However, with the opening of trade, this situation will change. As trade opens, the capital abundant country will increase the output of capital intensive product which will lead to higher capital prices. Similarly, the labor abundant country will expand the scale of output of the labor-intensive product and this will lead to higher labor prices. Capital prices will rise in capital abundant country and labor prices will rise in labor abundant country until the prices of the factors equalize in both the countries.

IMPORTANCE OF THE HECKSHER-OHLIN THEORY OF INTERNATIONAL TRADE.

The Hecksher-Ohlin theory has succeeded in removing some of the weaknesses of the classical theory of international trade propounded by Adam Smith and David Ricardo. According to Ohlin, international trade is a special case of inter-regional trade and thus can be explained in terms of the same theory which explains trade between the two regions of a country. Thus, there is no need for a separate theory of international trade. Further, the outdated labor theory of value was put away by Hecksher-Ohlin and the theory of general equilibrium which is an acceptable theory determining commodity and factor prices was used. The modern theory explains the causes of comparative advantage which the classical economists failed to do. According to Ricardo, as long as differences in efficiency of labor exist between two countries, trade will continue to take place between them. However, these differences will wither away due to cross border transfer of technical knowledge and the scope for international trade will perish. According to the modern theory, differences in factor endowments and factor proportions will never be eliminated completely and hence trade will continue to take place.

CRITICAL ANALYSIS OF THE HECKSHER-OHLIN THEORY.

The Heckscher-Ohlin theory of international trade has been criticized as follows:

1. The theory implies that if countries have identical factor endowments, trade will not take place between them. However, in reality trade does take place between countries with identical factor endowments. It is argued that trade occurs due to cost differences and cost differences are not entirely due to factor endowments. Transport cost and economies of scale also influence cost and price differences between different countries.
2. International trade also takes place due to product differentiation. Staffan Linder says that countries with identical factor endowments and consumer preferences with more or less the same level of income will trade and exchange differentiated products.
3. The Heckscher-Ohlin theory is also based on static assumptions of given factor endowments, constant consumer incomes and tastes and constant production functions. These assumptions do not hold good in the long run. Hence the theory will not be applicable to a dynamic economy.

Questions.

1. **Explain the Comparative Cost Advantage theory of International Trade.**
2. **Explain the modern theory of International Trade.**

SEMESTER - SIX

Module 1 – INTERNATIONAL TRADE.

CHAPTER – 2

TERMS OF TRADE

PREVIEW.

- Meaning.
- Types of Terms of Trade.
- Gains from Trade (Offer Curves)

MEANING.

The gains from specialization and international trade are shared between countries on the basis of terms of trade. The terms of trade measure the quantity of imported goods that can be obtained per unit of goods exported. A rise in the price of imported goods with export price remaining constant will lead to a fall in terms of trade for the trading country because the country must export a larger quantity of exports to import the same quantity. Similarly, a rise in the price of exported goods with import price remaining constant will lead to a rise in terms of trade for the trading country because the country must export a smaller quantity of exports to import the same quantity of goods. The ratio of export and import prices measures the amount of imports than can be obtained per unit of goods exported.

International trade is multilateral i.e. several countries are simultaneously involved in international trade. Hence the terms of trade of a country is computed in terms of an index number:

$$\text{Terms of Trade} = \frac{\text{Index of Export Prices}}{\text{Index of Import Prices}} \times 100$$

A rise in the index is known as a favorable change in a country's terms of trade. A favorable change means that the exporting country can import more goods for a given quantity of exports whereas an unfavorable change means that the exporting country will be able to import lesser goods for a given quantity of exports. For instance, if the export price index goes up from 100 to 140 and the import price index goes up from 100 to 120, the terms of trade index will rise from 100 to 116. At the new terms of trade, a unit of exports will buy 16 per cent more imports than at the initial terms of trade.

$$\text{Terms of Trade} = \frac{140}{120} \times 100 = 116$$

In the above example, the export prices have increased by 40 per cent and the import prices have gone up by only 20 per cent, thereby leading to a gain of 16 per cent to the country in our example. However, the rise in the index of export prices must be due to a rise in international demand for the goods of exporting countries. If the rise in export prices is due to a rise in domestic cost of production of export goods, the terms of trade will turn out to be unfavorable because export goods will become less competitive in the international market and international buyers may buy the goods from those countries which are willing to sell at a lower price.

TYPES OF TERMS OF TRADE.

There are three major types of terms of trade. They are Net Barter Terms of Trade, Gross Barter Terms of Trade and Income Terms of Trade. To this, Jacob Viner added another four, namely: Single Factoral Terms of Trade, Double Factoral Terms of Trade, Real Cost Terms of Trade and Utility Terms of Trade.

1. **Net Barter Terms of Trade (NBTT).** The ratio of price of exports (P_x) to price of imports (P_m) is known as NBTT. The price ratio may be expressed as:

$$NBTT = \frac{P_x}{P_m} \times 100$$

If $P_x > P_m$, terms of trade are favorable and vice versa. NBTT is also known as commodity terms of trade. The concept of NBTT is used as a device to measure short term changes in trading positions.

2. **Gross Barter Terms of Trade (GBTT).** Professor Taussig developed the concept of Gross Barter Terms of Trade in which prices are replaced by the ratio of quantities of exports and imports. The GBTT is an index of the ratio of the total physical quantity of exports and imports. GBTT is expressed in percentage terms as:

$$GBTT = \frac{Q_m}{Q_x} \times 100$$

Prof. CP Kindleberger has observed that when trade is not balanced, there will be difference in the NBTT and GBTT. However, when the trade is balanced, there will be no difference between the two indices. The GBTT will improve if the quantum of imports increases, exports remaining constant and vice versa. Prof. Taussig introduced the concept of GBTT to include unilateral payments like tributes and remittances into the NBTT because the NBTT considered only merchandise exports and imports. Prof.

Taussig was criticized for this inclusion because trade has no influence over unilateral payments and remittances. The GBTT do not capture the price and capital movements in their entirety. Hence, NBTT is found to be a more useful concept than GBTT. Prof. Viner supported the criticism by observing that only those unilateral payments arising out of trade may be included to compute the trade index. Prof. Haberler also observed that non-trade unilateral payments may be considered separately and not be included in the trade index. Due to the widespread support to NBTT, the concept of NBTT is preferred over GBTT.

3. **Income Terms of Trade (ITT).** GS Dorrance put forward the concept of Income Terms of Trade to indicate the international income of a country. It is measured by multiplying the volume of exports with the NBTT. ITT is expressed as:

$$ITT = \frac{Px \times Qx}{Pm}$$

The Income Terms of Trade indicates the import capacity of a country. The ITT is a better measure than NBTT for developing countries. However, NBTT is the most widely accepted measure of gains from trade.

Table 2.1: Index Numbers of Foreign Trade of India (Base Year 1999-2000 = 100)

Year	Unit Value Index		Volume Index		Terms of Trade		
	Exports	Imports	Exports	Imports	Gross	Net	Income
1	2	3	4	5	6 = 5/4	7 = 2/3	8 = 7 × 4 ÷ 100
2000-01	102	109	125	99	79	94	118
2001-02	103	112	126	103	82	92	116
2002-03	106	118	150	109	73	83	125
2003-04	114	132	161	128	80	86	138
2004-05	131	157	179	150	84	83	149
2005-06	139	179	106	174	84	78	161
2006-07	158	206	227	191	84	77	175
2007-08	166	210	245	218	89	79	194
2008-09	194	239	267	262	98	81	216
2009-10	196	215	264	288	109	91	240
2010-11	223	243	304	311	102	92	279
2011-12	268	425	331	246	74	63	208
2012-13	284	459	357	261	73	62	221

Note:

i) Net terms of trade (NTT), i.e., the ratio of overall export unit value index to similar Import index.

ii) Gross terms of trade, i.e., the ratio of overall import quantum Index to similar export index.

iii) Income terms of trade = (NTT x QIE)/100

iv) QIE=Quantum Index of Exports.

Source: Table 7.6, p95, IES 2013-14.

In Table 2.1, Net, Gross and Income Terms of Trade of India for the period 2000-01 to 2012-13 are given. Column number 7 indicates the NBTT of India which reveals a huge decline over the 12-year period. India is seen to be a sustained loser in terms of making gains from international trade. However, the ITT has increased in a sustained manner until 2010-11 indicating growing ability of India to import from the rest of the world. During the 12-year period, India's ability to import has increased by 87 per cent. The sharp decline in the ITT in 2011-12 was due to a sharp decline in the NTT.

JACOB VINER'S CONCEPTS OF TERMS OF TRADE.

Prof. Viner introduced the following concepts of terms of trade:

1. Single Factoral Terms of Trade.
2. Double Factoral Terms of Trade.
3. Real Cost Terms of Trade.
4. Utility Terms of Trade.

Single Factoral Terms of Trade (SFTT). The SFTT is a better index than the NBTT. The SFTT is the ratio of export price index and the import price index adjusted for changes in the productivity of a country's factor inputs in the production of exports. The SFTT is expressed as:

$$SFTT = \frac{P_x}{P_m} \times F_x$$

Here, F_x stands for productivity of factor inputs in exports or the export productivity index. F_x is measured as the index of cost in terms of quantity of factors of production used per unit of export.

Double Factoral Terms of Trade (DFTT). SFTT does not take into account the domestic cost of production of imports. To remove this limitation, Viner put forward the concept of DBTT which is expressed as:

$$DFTT = \frac{P_x}{P_m} \times \frac{F_x}{F_m}$$

However, the concepts of Single and Double factoral terms of trade could not be used in practice because of the difficulties in measuring the movements in productivity of factor inputs.

The Real Cost Terms of Trade (RCTT). The RCTT determines the real gains from international trade. It is obtained by multiplying the single factorial terms of trade with the index of the amount of disutility per unit of productive resources used in producing exports (Rx). RCTT is expressed as:

$$RCTT = \frac{Px}{Pm} \times Fx \times Rx$$

The Utility Terms of Trade. The Utility Terms of Trade is obtained by multiplying the RCTT with the index of the relative utility of imports and the foregone commodities (U). The UTT is expressed as:

$$SFTT = \frac{Px}{Pm} \times Fx \times Rx \times U$$

In practice, the RCTT and UTT could not be used due to the difficulties in measuring utilities and dis-utilities. Thus, the only concept which is used for all practical purposes is the NBTT.

GAINS FROM TRADE.

The classical theory of international trade is based on free trade between countries of the world and that trade benefits all participants due to comparative cost differences. The main benefits or gains of international trade are as follows:

1. **Maximum Output.** Free trade maximizes world output. Trade enables the developing countries to benefit from technological development taking place in the advanced countries. Developing countries can import the most modern means of production and maximize their output. Economist G Haberler and AK Cairncross observes that developing countries need foreign capital and technological knowhow for their development and without earning foreign exchange through exports, they will not be able to import foreign capital.
2. **Enlarged Consumption Basket.** International trade helps countries to import those goods and services which are either not produced at home because of the higher costs or the factor endowments of the country are not suitable to produce such goods. Countries of the world can therefore enjoy a larger consumption basket with trade than without trade.

3. **Greater Competition and check on Domestic Monopolies.** International trade increases the scope of competition thereby increasing the efficiency of domestic producers. Further, due to greater competition, the emergence of monopolies can be prevented. Greater competition can increase the economic welfare of the people.
4. **Mobility of Goods.** International trade in goods and services is a proxy for factor mobility. The disadvantages of factor endowments are greatly neutralized and the trading countries are benefited from international division of labor.
5. **Increase in the Size of the Markets and Rise in Real Incomes.** According to Professor Myint, due to specialization, international trade expands the size of markets and hence goods and services are produced on a larger scale, thereby reducing the cost of production. Greater demand for goods and services not only increases factor prices but also lead to innovation and reduced cost of production. Thus, higher demand and lower cost would increase the real income of factor owners.

GAINS FROM TRADE (THE OFFER CURVE APPROACH).

The Law of Reciprocal Demand put forward by JS Mill to explain the determination of terms of trade considered only two commodities. However, countries involved in international trade export and import many goods and services. The goods that can be exported or imported need to be determined. The problem of determining export goods and import goods was solved by Marshall and Edgeworth with their '**offer curve approach**'. The offer curves are international demand curves. Goods exported by a country are measured in terms of one common unit. For instance, the exports of Germany and England are expressed in terms of 'representative bales' of German and English goods. 'Bale' thus becomes a unit of measure of exports and contains a constant quantity of labor and capital from either of the countries. The real cost of a bale remains constant while the individual goods in the bale may change. The theory of terms of trade put forward by Marshall is based on the following assumptions:

1. Two countries are involved in trading only commodities.
2. Labor and capital are the two factors of production.
3. Full employment in the trading countries.
4. Perfect factor mobility within the countries.
5. Goods are traded for goods and hence there is absence of currency.
6. There is perfect competition and free trade in either of the countries.
7. There is comparative cost advantage and complete specialization.
8. Transport cost is not considered.

Offer Curves.

Marshall explained his theory of terms of trade by constructing reciprocal demand schedules of England and Germany. These schedules are graphically represented by Offer Curves or reciprocal demand curves of each country. The offer curve of a country shows various amounts of a commodity that would be offered by it in exchange for different amounts of another

commodity imported. It is based on the relative prices of two commodities. The offer curve expresses demand for one commodity (imports) in terms of supply of another commodity (exports) at various prices. Let us assume that England exports E-bales and imports G-bales as shown in Figure 2.1.

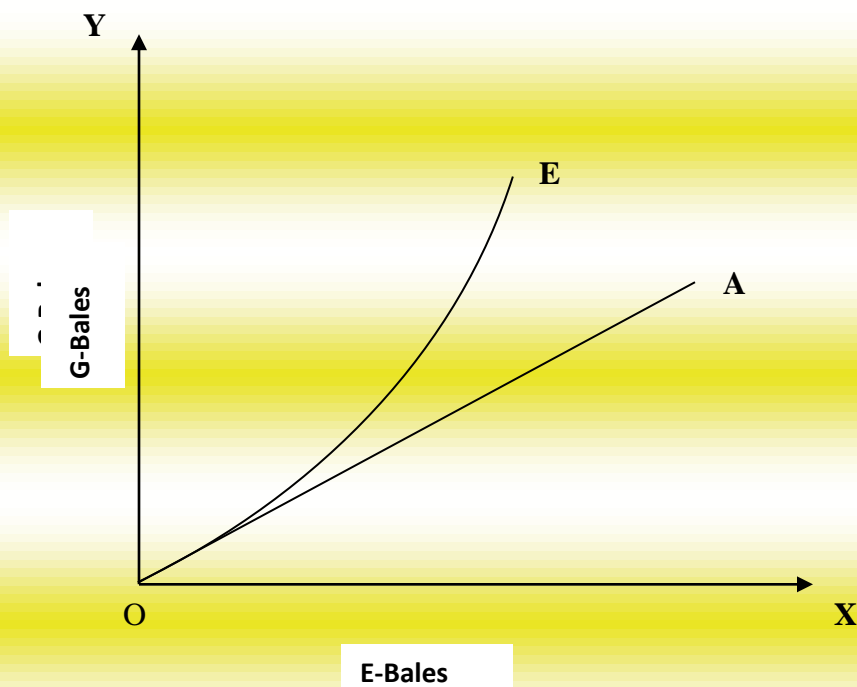


Fig. 2.1 – Offer Curve of England.

The offer curve OE in Fig. 2.1 depicts various quantities of E-bales exported by England in exchange for various quantities of G-bales at various terms of trade and hence it is the supply-demand curve of England. The offer curve OE shows the demand for G-bales in terms of supply of E-bales. The offer curve is convex towards the X-axis. It implies that the additional number of German bales can be sold in England only for lesser and lesser quantities of English bales. The price line OA depicts the ratio of domestic cost of producing one E-bale to one G-bale in England or the price ratio between E and G bales.

The price line OA is the limit beyond which the offer curve of England OE cannot go because England will not export E bales for less G bales than it can produce them at home. Kindleberger has pointed out that when a country is indifferent whether it produces it at home or buys it from abroad at the same price, the offer curve may follow the price line for a distance in the absence of trade i.e., the offer curve will be tangent to the price line. But beyond this distance or tangency, the offer curve OE moves away from the price line OA because England would offer a smaller and smaller quantity of its bales for additional German bales. A similar offer can be drawn for Germany which is depicted in Figure 2.2.

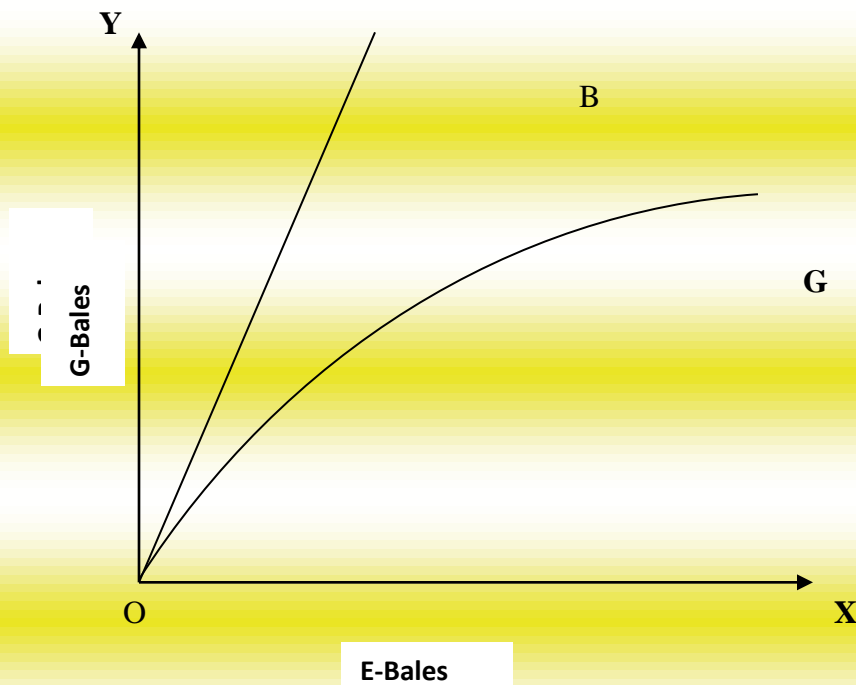


Fig. 2.2 – Offer Curve of Germany.

In Fig. 2.2, OG is the offer curve of Germany. It is the supply demand curve of Germany. It reflects the quantum of goods that Germany is willing to offer for various quantities of English goods. The offer curve OG is convex towards the Y-axis. Convexity implies that additional units of English bales can be sold in Germany only for a lesser and lesser unit of German bales. The price line OB shows the ratio of the domestic cost of producing one G-able to one E-bale in Germany. It is also the limit beyond which the Germany's offer curve OG will not go.

Equilibrium Terms of Trade.

The equilibrium terms of trade will be determined between the price lines OA and OB representing domestic cost ratios in England and Germany because the offer curves of both the countries are located between the two price lines. The actual terms of trade within these limits depend upon the reciprocal demand for the bales in both the countries. Trade will take place and both countries will gain if the terms of trade are determined inside the price lines. However, there will be no trade if the terms of trade are determined outside the price lines.

The equilibrium terms of trade between England and Germany is shown in Fig. 2.3. The reciprocal demand or offer curves intersect at point E and the equilibrium terms of trade (NBTT) EM/OM is determined. At point, 'Q', the balance of trade is in equilibrium because the supply and demand curves of both the countries are equal. Equilibrium point 'Q' indicates that England

exports OM units of E-bales and imports OQ units of G-bales and Germany exports OQ units of G-bales and imports OM units of E-bales.

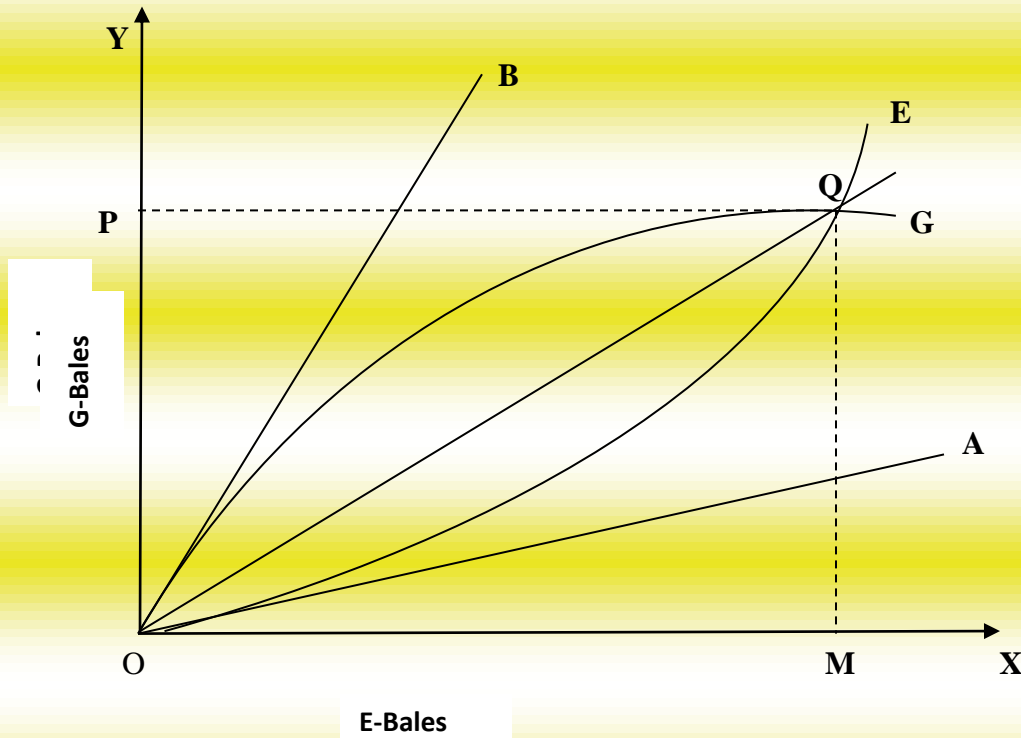


Fig.2.3 – Equilibrium Terms of Trade between England and Germany.

Changes in the Terms of Trade.

Along with the market forces of demand and supply of goods, the elasticity of demand and supply also influence the terms of trade. For instance, if Germany's demand for English bales becomes more elastic, her offer curve will shift upward and the new offer curve will be OG_1 . The new offer curve intersects England's offer curve at point Q_1 . England will now get a larger quantity of G-bales. At the new terms of trade, England will get Q_1T G-bales for MN quantity of E-bales. If England's demand for German bales becomes more inelastic, the English offer will curve shift to the left and intersect the German offer curve to the left of point Q_1 bringing about a further improvement in the terms of trade of England. Changes in the terms of trade between England and Germany are shown in Figure 2.4 below.

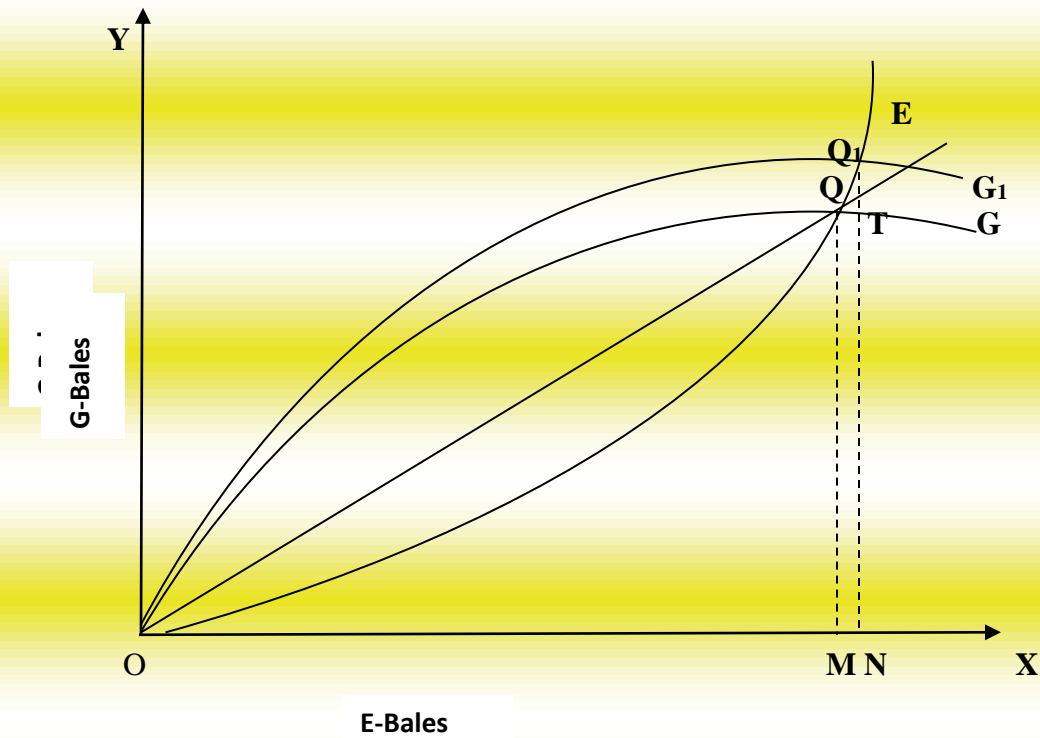


Fig.2.4 –Changes in the Terms of Trade between England and Germany.

Questions.

- 1. Explain the meaning and types of terms of trade.**
- 2. Explain Viner's concepts of terms of trade.**
- 3. Explain the gains from trade.**
- 4. Explain the offer curve approach to terms of trade.**

SEMESTER VI

Module II – INTERNATIONAL TRADE & WTO.

CHAPTER – 3

STRUCTURE OF BALANCE OF PAYMENTS

PREVIEW.

- **Balance of Trade and Payments.**
 - **Causes of Disequilibrium in the Balance of Payments.**
 - **Measures to correct disequilibrium (Monetary & non-monetary).**
 - **Emerging Trends in India's Balance of Payment position since 1991.**
-

CONCEPT OF BALANCE OF PAYMENT.

Definition. The Balance of Payment is defined as “a systematic record of all economic transactions between the residents of a country and residents of foreign countries during a certain period”.

- Systematic record refers to the system of double entry book keeping system.
- Economic transactions include all such transactions that involve the transfer of title or ownership.
- The term ‘resident’ refers to the nationals of the reporting country. For example, tourists, diplomats, military personnel, temporary and migratory workers and the branches of foreign companies operating in the reporting country do not fall in the category of residents.
- The time is generally one year.

Usefulness of the Concept of Balance of Payment.

- The BOP data is useful in policy formulation for the external sector.

- To study the strengths and weaknesses of a country in the field of international trade.
- Inter-temporal study helps in knowing the B o P position of the country.
- Study of other countries' B o P position helps in identifying threats and opportunities that exist in the international arena for a given country.
- Study helps in converting weaknesses into strengths and threats into opportunity.
- It helps in knowing changes in the composition and direction of foreign trade (See table 3.1).

Table3.1

Share of Agricultural and Manufactured Goods in India's Exports and the Direction of Indian Exports (in percentage)

Category	2000-01	2013-14
Agriculture and allied exports	16.00	15.6
Manufactured Goods	78.80	63.7
Petroleum and Crude Products	04.20	20.1
Top 15 countries	*58.46	57.89
Export- Import Ratio	*0.68	0.69
<p>1. Top 15 include: China, USA, UAE, Saudi Arabia, Switzerland, Germany, Hong Kong, Indonesia, Singapore, Iraq, Kuwait, Belgium, Nigeria, Qatar and Korea.</p> <p>2. A coefficient of export and import ratio between 0 and 1 implies that India's imports are greater than exports and if the coefficient is greater than one, India exports more than it imports.</p> <p>*2010-11, Source – IES 2013-14, Table 7.7, p-127.</p>		

- It indicates future consequences of the post trade performance of a country. Regular and large deficit shows growing international indebtedness and regular large surplus indicates the dangers of inflation.

BALANCE OF PAYMENTS ACCOUNTS. The Balance of Payments accounts are divided into two categories namely current and capital accounts. Payments made by residents of the reporting country to foreigners are called debits and payments made by the residents of the rest of the world to the reporting country are called credits.

Current Account. The current account contains entries related to export and import of merchandise and service that change the current level of consumption or national income of the country.

Capital Account. The capital account contains entries relating to movement of short term and long term capital both in and out of the country along with gold and foreign exchange reserves leading to increase or decrease of a country's total stock of capital.

Table 3.2
Balance of Payments Accounts (A hypothetical example)

Credit (Receipts) (in Rs. Crore)		Debit (Payments) (in Rs. Crore)	
(A) Current Account			
1. Goods Exported	800	8. Goods imported	1200
2. Services Exported	400	9. Services imported	800
3. Incomes from investment in the foreign country.	400	10. Incomes to foreigners on investment in the reporting country.	800
4. Unilateral receipts.	800	11. Unilateral payments.	400
Total	2400	Total	3200
(B) Capital Account			
5. Long term borrowing	800	12. Long term lending	320
6. Short term borrowing	400	13. Short term lending	240
7. Sale of gold/assets	400	14. Purchase of gold/assets	200
		15. Errors and omissions	40
Total	4000	Total	4000

Current Account. The current account of the Balance of payments of a country consists of real economic transactions of actual transfer of goods and services from one country to other countries. While imports reduce national income, exports lead to rise in national income.

- Entries at Serial Numbers 1 to 4 and 8 to 11 are real or income creating transactions.
- The current account has two types of income creating transactions i.e. trade or merchandise account and the invisible account.
- The trade account consists of exports of goods. Thus, the income earned from goods exported (Rs.800 Crore) is shown as the credit entry and the import payment (Rs.1200 Crore) is shown as the debit entry.

- The invisible account consists of all other transfer payments in the form of incomes. Income earned through the export of services is insurance, banking, interest on loans, tourist expenditure, transport charges etc. The reporting country has earned Rs.400 Crore from the export of services and has spent Rs.800 Crore for receiving these services from foreign countries.
- The second entry in the invisible account is income from investment in the foreign countries through interest/dividend. This amounts to Rs.400 Crore on the credit side and Rs.800 Crore on the debit side.
- The third entry in the invisible account shows unilateral receipts on the credit side and unilateral payments on the debit side. These payments and receipts consist of gifts and charities which are given and received freely without the obligation to repay. Thus, receipts or payments because goods exported or imported constitute the visible account or the trade account. All other income earning transactions constitute invisible accounts.

According to the International Monetary Fund, the following transactions have been accepted as invisible transaction:

1. Travel because business, education and health.
2. Insurance premium and payment of claims.
3. Investment income including interest, rents, dividends and profits.
4. Transnational transportation of goods, warehousing during transit and other transit expenses.
5. Income from services such as advertising, commissions, pensions, patent fees, royalties, subscription to periodicals, membership fees etc.
6. Repayment of commercial credits.
7. Donations, migrant remittances, legacies.
8. Contractual amortization and depreciation of direct investment.

Capital Account.

The capital account of Balance of Payment consists of those items which affect the existing capital stock of the country. The broad categories of capital account items are short term and long term capital movements both in and out of the country and changes in the gold and exchange resources.

- Short term capital movements include purchase of short term securities such as treasury bills, commercial bills and acceptance bills, speculative purchase of foreign currency and cash balances held by foreigners.
- Long term capital movements include direct investments in shares or bonds or real estate or physical assets such as plant building, equipment etc, portfolio investment in government securities, and securities of firms etc and amortization of capital.
- Export of capital is a debit item whereas export of merchandise is a credit item because of export of merchandise leads to inflow of foreign exchange which adds to the national

income of the reporting country and export of capital leads to outflow of foreign exchange which leads to withdraw from the foreign exchange resources of the reporting country.

- Gold and foreign exchange reserves are maintained to impart stability to the exchange rate of the home currency and to make payments to the creditors in case there are payment deficits on all other accounts.
- Assistance provided by IMF, World Bank etc is shown in the capital account. Countries like the US and the UK show a separate official settlement account in addition to current and capital accounts. The official settlement account records the change in the foreign exchange reserves and reserves of monetary gold held by the monetary authority.
- Increase in reserves is debit items and decrease is credit item.

Balance of Payment and Balance of Trade.

Balance of Payment is a wide concept than Balance of Trade. Balance of payment includes all the entries because trading in goods, services, capital flow etc. Balance of trade refers to only the difference between the value of imports and exports of merchandise or visible items whereas balance of payment covers total debits and credits of all items visible and invisible.

The net balance on the visible items i.e., merchandise exports and imports are called balance of trade. If exports are greater than imports, the Balance of Trade is positive and vice versa. The balance on current account is carried over to the capital account. A deficit in Balance of Trade is made good by external borrowing or assistance which will have a matching surplus entry in the capital account thus balancing the accounts.

Balance of Payments Always Balance.

The Balance of Payment accounts is maintained based on double entry book system where total debits will always equal total credits. Hence in the accounting sense, the balance of payment will always balance. However, imbalances do exist in different account heads as shown in the table. The balance of trade reflects a deficit of Rs.400 Crore (Rs.800 – 1200). Net negative exports of goods indicate unfavorable balance of trade. On the invisible account, the balance of services and the balance of investment income also show a deficit of Rs.400 Crore each. However, there is a surplus of Rs.400 Crore because net unilateral receipts. Thus, there is a deficit of Rs.400 Crore each on the visible as well as the invisible account. The net balance which is the sum of net visible exports and net invisible exports is the balance on current account. In this case, there is a deficit on the current account amounting to Rs.500 Crore. You will notice that the deficit on current account is made good on the capital account. The balance of loan transactions and the balance of monetary gold flow i.e., net borrowing and net monetary gold flow shows a positive balance of Rs.640 crore and Rs.200 crore. Errors and omissions of Rs.40 crore is entered to make the deficit of Rs.800 crore on current account match with the surplus of Rs.840 crore on the capital account. The items errors and omissions indicate the value of certain discrepancies in estimation resulting in situation where debits are not exactly equal to the credits. A negative value indicates that receipts are over-stated or payments are understated

or both. Similarly, a positive value indicates that receipts are understated or payments are overstated or both. If such errors are large and persistent, they indicate serious weakness in recording of transactions. Thus, because double entry book keeping system, the balance of payments will always balance. Any negative balance in the current account is made corrected by a surplus balance on the capital account and vice versa. Therefore, balance of payment always balances from the accounting point of view.

DISEQUILIBRIUM IN THE BALANCE OF PAYMENTS.

Equilibrium or disequilibrium in the balance of payments refer to the balance on those heads of the account which do not include the drawings from the IMF, use of special drawing rights, drawings from the reserves of foreign currencies held by the Central government etc. Excluding these items, if there is neither deficit nor surplus in the balance of payments, it is known to be in equilibrium. Otherwise, it will be in disequilibrium. The deficit in the balance of payment can be financed by drawings from the IMF, use of Special Drawing Rights and drawings from the reserves of foreign currencies. In 1999-2000, the deficit on the current account was financed by the surplus on the capital account of India's balance of payment. Nonetheless, India's balance of payment remains unfavorable and in disequilibrium because of a deficit on the current account. It thus means that when there is neither surplus nor deficit on the current account, the balance of payment is said to be in equilibrium. A more important concept of balance of payment is the concept of basic balance. It is based on autonomous items in the balance of payment. Autonomous items are those items which cannot be easily changed or influenced by the government because they are determined by long term factors. Autonomous transactions take place on their own because of peoples' desire to consume more or to make higher profits. For instance, both export and import of goods and services which are items on the current account are undertaken to make profit or consume more goods and services. Exports and imports take place irrespective of other transactions included in the balance of payment accounts. It is for this reason they are called autonomous transactions. Autonomous transaction also includes long term capital movements both on private and government account contained in the capital account. If exports are equal to imports, there will be no other transaction but if they are not equal, it will lead to short term capital movements in the form of international borrowing and lending. These capital movements are undertaken for bridging the deficit in the balance of trade. Since the short-term capital flows are accommodating or compensatory in nature, they are called induced transactions. Induced transactions include borrowing from the International Monetary Fund or Central Banks of other countries, drawings from Special Drawing Rights account. Induced transactions are excluded from the concept of basic balance. Thus, when autonomous transactions are equal and there is no need for induced transactions, the balance of payment is in equilibrium. This equilibrium in the balance of payment is a state of balance which can be sustained without government intervention. The concept of basic balance therefore can be stated as:

$$(X - M) + LTC = 0$$

Where, X stands for exports.

M stands for imports, and

LTC stands for long term capital movements.

If exports are greater than imports ($X > M$), long term capital movement will be negative and equal to net exports (X_n) which means there will be net capital outflow. Similarly, if exports are less than imports ($X < M$), long term capital movement will be positive and equal to net imports (M_n) which means there will be an inflow of capital to bridge the deficit in the current account.

CAUSES OF DISEQUILIBRIUM.

Short run or long run disequilibrium in the balance of payments of a country is caused by numerous factors which may operate simultaneously or singularly. Different countries may experience different types of disequilibrium with different contributing factors at different points of time. The generalized causes of disequilibrium in the balance of payment can be explained as follows:

Business Cycles.

Business cycles are an important cause of cyclical disequilibrium in the balance of payments of a country. Difference in timing and occurrence of trade cycles in the trading countries also causes cyclical disequilibrium. Further, the intensity of prosperity and depression in different countries can cause cyclical disequilibrium. Difference in income and price elasticity of demand for imports in different countries is yet another cause of cyclical disequilibrium. For instance, if the prosperity phase of a country like United Kingdom is more intense than that of United States, then United Kingdom will have a deficit in the balance of payment and United States will enjoy a surplus. This is because of the fact that the demand for imports in United Kingdom will be relatively greater than the demand for imports in United States.

Large Developmental Expenditures.

In case of developing countries, the main cause of disequilibrium in the balance of payments is their persistently growing developmental and investment expenditures and these countries continually depend upon the advanced countries for their capital imports and the dependence seems to be inherently continuous because the developmental gap between the advanced countries and the developing countries. The result of this developmental gap is unfavorable terms of trade which causes persistent current account deficits in the balance of payment of developing countries. Further the developing countries are largely agricultural economies involved in the process of industrialization. Progressive industrialization contributes to increasing demand for primary products resulting in their price rise and reduced exportable surplus. Unfavorable terms of trade on account of primary goods exports and reduced exports surplus on account of growing domestic demand for primary products compounds the problem of deficit resulting in structural disequilibrium and sometimes fundamental disequilibrium in the long run.

Changing Demand for Exports.

Economic self-sufficiency appears to be an important aim of every country developing and advanced. The developed or the advanced countries aim to be self-sufficient in primary

products, particularly the food articles and thus their demand for imports of primary goods gets reduced over time. This results in a fall in the exports of developing countries and adversely affecting their balance of payments. Similarly, the developing countries also try to be economically self-sufficient in terms of their capital requirements, thus reducing their capital imports. However, because the developmental gap and technological backwardness along with unfavorable terms of trade, the developing countries have regular net negative exports and therefore a persistent disequilibrium in their balance of payments.

High Growth Rate of Population.

The rate of growth of population in high income countries is 0.6 per cent per annum whereas in the case of low income developing countries, it is as high as two per cent per annum (see page 279 of WDR 2000-2001). A high population growth not only demands higher imports but also contributes to a persistent rise in the demand for primary products resulting in secular disequilibrium in the balance of payments.

Heavy External Borrowings.

A country with a persistent and sometimes rising deficit on the current account without adequate inflow of foreign exchange on the capital account may have to take recourse to external assistance and commercial borrowings. Heavy external borrowing, particularly external commercial borrowing necessitates debt servicing in the form of principal and interest payments. Deficit in the balance of payment would continue as long as the country borrows more than what it lends to other countries.

Inflation.

Inflation is a chronic problem in developing countries and India is a classic example of an inflation infected country. Inflation assumes significance in the context of balance of payments when the domestic inflation rate is much higher than what is prevalent amongst your trading partners. In such a situation, import demand will be higher along with higher demand for domestically produced goods and services. This will reduce the exportable surplus and lead to a deficit in the balance of payment. Further, on account of higher domestic prices, the demand for exports will fall necessitating a depreciation or devaluation of the home currency. Devaluation of the home currency will help exports to rise and imports to fall. However, imports will fall only if they are price elastic. In case of developing countries, import demand being relatively inelastic, the deficit in the balance of payment continues after a brief reprieve.

International Demonstration Effect.

According to Ragner Nurkse, increasing interaction between the developing and the advanced countries results in an international demonstration effect. International demonstration effect refers to the phenomenon of imitation by the developing countries of the conspicuous consumption pattern of the advanced countries. The developing countries have a high marginal propensity to consume. On account of the international demonstration effect, higher MPLC translates into higher imports without matching exports. The developing countries also try to

replicate the production pattern of advanced countries by importing sophisticated capital goods and know-how. Thus, international demonstration effect not only leads to higher import of consumer goods but also capital goods all contributing to deficit in the balance of payments.

Flight of Capital.

Countries with full convertibility both on current account as well as capital account are particularly exposed to the danger of capital flight in the event of a currency crisis. The Mexican currency crisis of 1994-95 and the east-Asian crisis of 1997 are two examples of capital flight. Countries with huge exposure to foreign capital flows in the form of portfolio investment and short term capital borrowing are highly susceptible to speculative attack on their home currencies leading to foreign exchange crisis. For instance, net inflow into Mexico in 1993 was \$60 billion and during the Mexican crisis of 1995, net outflow reached \$75 billion. A speculative attack on a currency takes place when foreign and domestic depositors suddenly shift their funds out of domestic banks into foreign currency. These attacks take place because investors receive information that affects the attractiveness of keeping money in a country whose economic characteristics appears to be doubtful.

Imposition of Non-tariff Barriers.

Non-tariff barriers in the form of quantitative restrictions or import quotas, countervailing duties in the name of social clause, ban on certain items of import in the name of child labor content are imposed by the advanced countries on developing countries which adversely affect their export performance. Under the multi-fibre agreement, comprehensive quota restrictions on import of clothing and textiles into the advanced countries were imposed. Similarly, the social clause which was moved by the United States to be incorporated in the Marrakesh Declaration in 1994 proposed to levy a countervailing duty on imports from developing countries in order to offset the low labor costs prevailing in these countries. The comparative cost advantage enjoyed by the developing countries on account of low labor cost was sought to be neutralized under the guise of a humanitarian concern that the developing countries adopt proper standards of living for the workers and pay better wages. The 'social clause' was withdrawn on account of strong opposition from the developing countries. Non-tariff barriers in the form of quotas, countervailing duties, child labor content etc adversely affect the exports of developing countries and thereby their balance of payments.

Globalization of the World Economy.

Globalization refers to the process of economic integration of the member countries of the World Trade Organization. In the year 1999, one hundred and thirty-four countries were members of the WTO. Globalization is sought to be achieved through reduction of trade barriers, free flow of capital between the member nations and free flow of technology. Since the terms and conditions of the world trade under aegis of WTO is set by the powerful countries of Europe and the Americas, the developing countries are found to be at disadvantage in the globalizing world economy. The imposition of non-tariff barriers on the exports from developing countries discussed earlier, have been adversely affecting the balance of payments of these countries. In the emerging global village, the developing countries have very little bargaining power to bring

about a level playing field in world trade. With inelastic capital imports and elastic exports and with the free flow of finance capital, the developing countries are found to be more vulnerable in the context of their balance of payments position.

MEASURES TO CORRECT DISEQUILIBRIUM.

A fundamental disequilibrium in the balance of payments of a country needs timely correction. If the balance of payment of a country shows persistent and growing deficit, the country must initiate measures to improve its foreign exchange resources. The foreign exchange reserves can be improved by import reduction and by increasing exports. Both would require adjustment through exchange rates and trade controls. The adjustment mechanism used to correct disequilibrium in the balance of payments consists of monetary and non-monetary measures. Deflation, exchange depreciation, devaluation and exchange control are the monetary measures whereas import duties, import quotas or quantitative restrictions and export promotion drives are the non-monetary measures. Effective implementation of monetary measures helps to increase exports and reduce imports. They function through the price mechanism and hence they influence indirectly. Non-monetary measures are direct in their impact. For instance, import duties and quantitative restrictions in the form of quotas directly reduce imports and export promotion measures directly increase exports.

Monetary Measures to Correct Disequilibrium in the Balance of Payments.

Deflation.

Deflation is a deliberate attempt by the monetary authorities of the country to bring down the general price level. The general price level is brought down by reducing money supply with the help of both quantitative and qualitative measures of credit control. A country with a deficit in the balance of payment will increase the bank rate which will be followed by higher interest rates charged by the commercial banks. Thus, investment demand will fall resulting in the fall in employment income. Lower income will lead to reduced demand for domestic goods and service and fall in their prices. Lower prices would help increase the demand for exports and decrease the demand for imports. Further, lower domestic demand will increase the exportable surplus and lower domestic incomes will reduce the propensity to import, thus correcting the deficit in the balance of payment. However, deflation as a monetary measure to correct disequilibrium is not free from limitations. It will be successful only in the case of a regime of fixed exchange rates. For instance, under a flexible exchange rate system, the country which tries to boost exports by deflationary measures may have to face an appreciation in the external value of its currency vis-à-vis the foreign currency. Thus, gains made by reduced prices may be offset by an appreciation in the exchange rates thus nullifying the whole exercise. Further, the effective impact of a deflationary policy depends upon the elasticity of imports and exports. If the elasticity of demand for imports and exports are greater than unit, a mild deflation will be sufficient. In case, the elasticity of demand for exports and imports is less than unity, a strong dose of deflation would be required. However, a deflationary spiral will adversely affect domestic employment, output and incomes. Thus, a deflationary policy to correct disequilibrium won't be the correct prescription because such a policy would be paradoxical to development requirements of developing economies.

Exchange Depreciation.

Exchange depreciation is said to have taken place when there is a fall in the external value of the currency of a country. However, exchange rate depreciation being de-facto and because of market mechanism, is possible only under a regime of flexible exchange rates. For instance, let us assume that the US Dollar is exchanged for Rs.40. If the Indian demand for American exports rose more proportionately than the American demand for Indian exports, there will be a negative trade balance in India's balance of payments reflecting a higher demand for US dollars. Higher demand for US dollars will result in the appreciation of the dollar and depreciation of the rupee and the new exchange rate let us assume will be Rs.45 to a US dollar. The depreciation of the Indian rupee will help increase the demand for Indian exports because Indian exports have become cheaper. Similarly, an opposite effect takes place on the demand for imports which have now become dearer. The demand for imports or US exports falls and the deficit in the balance of payments is reduced.

Exchange rate depreciation is also not free without its limitations. Exchange rate depreciation will be successful in reducing and correcting the disequilibrium in the balance of payments only if the demand for imports and exports is relatively elastic and if it is relatively inelastic, a bigger depreciation will be required to bring about a fall in imports and a rise in exports. Further, if your trading partner in our example, i.e., the US allows its currency to depreciate as a retaliatory measure, the entire Indian effort to depreciate its currency will be in vain. Yet another adverse impact on the depreciating country will be unfavorable terms of trade. If the import content in exportable goods is high, the price of exports will rise thus nullifying the depreciation exercise. Finally, exchange depreciation may result in an inflationary spiral because rise in domestic price level and increase in nominal incomes.

Devaluation.

Devaluation of the home currency is an alternative to depreciation. It is a generally adopted method by countries facing a deficit in the balance of payments. Devaluation is an official recognition of the fall in the external value of the home currency. While depreciation is de-facto, devaluation is de-jure.

The **International Monetary Fund** allows devaluation only when the country is trapped in a fundamental disequilibrium. The impact of devaluation will be the same as that of depreciation i.e. the exports will become cheaper and the imports dearer, thus bringing about a correction in the balance of payment. However, devaluation as a measure to correct persistent deficit in the balance of payment will be successful only under certain conditions.

Firstly, the **elasticity of demand** for exports and imports should be **greater than unity**. Otherwise, devaluation will further worsen the deficit in the balance of payments.

Secondly, if the country exercising devaluation exports non-traditional items with a large international demand, it will gain because improved terms of trade. However, if the export consists of primary goods and the imports that of manufactured goods, then the terms of trade will become unfavorable, thereby worsening the balance of payment situation.

Thirdly, after devaluation, the country should be able to maintain domestic price stability. If devaluation leads to domestic price rise, the purpose of devaluation will be defeated. However, the domestic cost price structure of a country may change if the domestic output of import substitutes is not increased resulting into the price rise. Further, if the reduction of exportable goods is not increased and if the rise in demand for exports is met by reducing the supply in the domestic market, prices will rise in the domestic market and make exports less profitable.

Fourthly, if the import content of the exportable goods is high and if the country is capital deficit and certain to import capital goods at a higher price, cost of production will go up making imports less attractive to foreign countries. Further, if the price rise in certain category of goods has chain effect leading to a rise in the general price level, organized labor will demand compensation in the form of dearness allowance and there will be cost push inflation in the country. However, if devaluation is combined with deflationary measures in the domestic economy, domestic price stability can be maintained with a certain degree of success.

Fifthly, devaluation by a country, facing deficit in the balance of payments should not be countered by competitive devaluation by foreign countries or foreign countries should not off-set the impact of devaluation by imposing tariff and non-tariff barriers.

Finally, devaluation will be effective only if export promotion and import discouraging measures are simultaneously implemented. However, devaluation has its negative side. It is a sign of the economic weakness of a country and has the potential to induce price rise in the domestic economy. Further, it leads to a rise in cost of debt servicing and if the macro-economic management of the country is not sound and the country may have to take recourse to devaluation from time to time as in the case of India.

Exchange Control.

Exchange control refers to restrictions imposed by the Central bank of a country on the use of foreign exchange to correct the disequilibrium in the balance of payments. When an exchange control is adopted, the Central bank collects all the foreign exchange earnings and releases foreign exchange only for unavoidable and essential imports.

Exchange control as a monetary measure is superior to deflation, depreciation and devaluation because it directly controls the demand and supply for foreign exchange. The exporters are required to surrender all their foreign exchange earnings to the Central bank and the imports must obtain permission for import of goods. The foreign exchange resources with the Central bank are distributed amongst imports according to the quotas fixed. Exchange control is therefore a very effective method of correcting deficit in the balance of payment of a country. However, exchange control is not a permanent solution to long run disequilibrium because it only suppresses demand for imports and does not cure the causes of deficit.

Non-Monetary Measures of Correcting Disequilibrium in the Balance of Payments.

A judicious mix of monetary and non-monetary measures needs to be simultaneously implemented to correct disequilibrium in the balance of payments. Both surplus and deficit in the balance of payments call for correction. In the case of a persistent surplus, the measures adopted to correct a deficit must be turned on their heads or reversed. For instance, a country with a favorable balance of payments will face an appreciation in the external value of its currency. In that case, the Central bank must encourage imports and discourage exports by pursuing cheap money policy and revaluation of the currency.

Non-monetary measures help in correcting disequilibrium in the balance of payments without changing the exchange rates. In case of a deficit in the balance of payments, the non-monetary measures aim at promoting exports and discouraging imports. The following non-monetary measures can be used to correct deficit in the balance of payment.

Export Promotion Measures.

Export promotion helps to improve the foreign exchange reserves of a country and thus corrects the deficit. The government may implement export promotion measure such as export subsidies, tax concessions to exporters, marketing facilities, export incentives, loans to exporters on a priority basis, setting up of export zones and 100% export oriented units, organization of trade fairs in foreign countries etc. Exportable surplus should be created of those goods which have a high demand in the foreign countries by expanding production capacities and by discouraging domestic consumption of such goods.

Import Control Measures.

Import duties, import quotas and import substitution are the three important measures of import control. These measures are complementary to export promotion measures to correct the deficit in the balance of payments. Import duty is a fiscal instrument used to control imports. They result in increase in the price of imported goods leading to a fall in import demand and reduction in the deficit. Import quota is a direct method of correcting disequilibrium in the balance of payments. Import quotas have the immediate impact in limiting imports as the marginal propensity to import becomes zero as the quota limit is reached. Import quota is a quantitative measure of import restriction and hence they are highly effective than import duties. The third measure to control imports is through import substitution. Import substitution requires setting up of industries which can produce import substitutes inside the country. However, import substitution industries needs to be set up with indigenous capital and technology and the goods so produced must be comparable in quality.

Conclusion.

Both monetary and non-monetary measures used to correct disequilibrium in the balance of payments are known to be an adjustment mechanism. Adjustment through changes in exchange rates relates to exchange rate depreciation and devaluation. Adjustment through changes in income and price relates to deflation and adjustment through controls relates to exchange controls and trade controls. Exchange controls refer to rationing of foreign exchange and trade controls involve export promotion and import control measures.

The non-monetary measures are considered more effective in correcting a deficit in the balance of payments. Import duties, quantitative restrictions in the form of import quotas and import promotion measures are found to be more effective in correcting a deficit.

INDIA'S BALANCE OF PAYMENTS SINCE 1991.

The year 1991 is known as the year of Economic Crisis in the post independent economic history of India. The economic crisis of 1991 was an external sector crisis. The International Monetary Fund bailed India out of the crisis but with a condition to initiate structural reforms in the Indian economy. In the same year, India initiated the New Economic Policy and went through a program of structural adjustment. Liberalization, Privatization and Globalization were the three corner stones of this new economic policy. The current account deficit in the year 1990-91 was 3.1 per cent of GDP. The Gulf War of 1991 was a major contributor to the crisis suffered by India. Prices of crude oil and petroleum products went up heavily and remittances from the Gulf by Indian expatriates dried up. The Indian Rupee was overvalued and this affected Indian exports. The policy of import substitution pursued by India was not conducive to exports. With poor exports and high imports, India continued to have current account deficits. During the period 1985-90, the trade deficit averaged 3 per cent of GDP and the current account deficit averaged 2.2 per cent of GDP. These deficits were financed by external borrowings such as external assistance, commercial borrowing and NRI deposits. The government also had to take recourse to run down the foreign exchange reserves. The debt service ratio went up to 35 per cent in 1990-91. It was only after a decade of economic reforms that India for the first time had a current account surplus of 0.7 per cent of GDP in the year 2001-02. In the subsequent year, the current surplus went up to 1.2 per cent of GDP (See Table 11.3). **The structural reforms and stabilization measures undertaken by the Government of India after July 1991 were as follows:**

Devaluation of the Rupee.

To restrict imports and encourage exports, the rupee was devalued on 01st July, 1991 and on 03rd July 1991 by 22.8 per cent. The cash compensatory subsidy to exporters was withdrawn after the devaluation. To check cost-push inflation because of devaluation, appropriate monetary and fiscal measures were undertaken.

Reduction in Custom Duties.

Custom duties were reduced to increase the competitiveness of Indian exports and to control cost push inflation. Reduced custom duties also reduced the cost of Indian exports with high import

content. Further, it increased the level of competition to Indian industries. Increased competition encouraged productivity improvements in Indian industry.

Assistance of IMF and World Bank.

The Government of India took assistance from the IMF and the World Bank to overcome the foreign exchange crisis. The Bretton Wood twins agreed to bail out India only if India was to implement structural reforms. India accepted the conditions of assistance and initiated economic reforms through the New Economic Policy of July 1991.

Reduction in Fiscal Deficit.

High fiscal deficit was an important cause of inflation and poor balance of payment situation. The fiscal deficit was reduced from 7.3 per cent of GDP in 1989-90 to 4.7 per cent in 1991-92. By reducing fiscal deficit, aggregate demand was reduced. Lower aggregate demand put a downward pressure on price rise. Lower inflation encouraged exports and reduced imports, thereby helping the balance of payment situation to improve.

Market Determined Exchange Rate.

India adopted the floating exchange rate system in 1993 and the exchange rate was determined by market forces. Correction in the balance of payment to some extent was to be made automatically through market mechanism. After floating the Indian currency, the rupee depreciated against the dollar from 24.47 in 1993 to 35.50 in 1996-97. Depreciation of the rupee boosted Indian exports and increased NRI remittances.

Abandoning the Policy of Import Substitution.

The protectionist policy was given up by the Government and peak import duties were reduced from 150 per cent in 1992-93 to 15 per cent in 2006-07. Import substitution was proving to be highly inefficient and due to the poor quality of manufactured goods in India, the demand for Indian exports was not increasing. The policy of free trade adopted by the Government increased the competitiveness of Indian industry and led to increasing exports. India's share in world exports went up from 0.5 per cent to one percent since the implementation of economic reforms.

IMPACT OF ECONOMIC REFORMS ON BALANCE OF PAYMENTS.

The program of economic reforms both internal and external was initiated in 1991. Since then, the balance of payment situation has improved considerably. From a current account deficit of 3.1 per cent in 1990-91 to a surplus of 2.3 per cent in 2003-04 and thereafter small deficits of less than one per cent of GDP, the balance of payment situation has become comfortable as India continues to have overall surplus on the balance of payments. The Balance of Payments summary for the period 1990-91 to 2013-14 is given in Table 3.3. Also, see table 3.4 on Selected External sector indicators.

The balance of payment situation of India grew from strength to strength since the beginning of economic reforms in 1990-91. The current account deficit increased from US \$2.5 billion in 2004-05 to US \$38.38 billion in 2009-10. In percentage terms, it went up from 1.2 per cent of GDP to 2.8 per cent of GDP. The doubling of the CAD can be attributed to the impact of the Global Financial Crisis of 2008-09 on the external sector of the Indian economy. Until 2007-08, the CAD had remained in the range of 1.1 to 1.3 per cent of the deficit. Due to rising oil prices, there was a reversal from current account surpluses seen between 2001-02 and 2003-04 to current deficit from 2004-05 onwards. The capital account after having financed the current account deficit had a surplus of US\$ 13.44 billion in 2009-10 which went into the foreign exchange reserves. In 2008-09 i.e. the year immediately after the GFC, the portfolio investments were negative to the extent of US\$ 14.03 billion and hence the balance of payment account showed an overall negative balance of US\$ 20.08 billion. The foreign exchange reserves were therefore down by US\$ 20.08 billion. Due to a quick recovery of the Indian economy from the negative impact of the GFC, in the subsequent year i.e. in 2009-10, the balance of payment account showed an overall positive balance of US\$ 13.44 billion. This was because a positive portfolio flow of US\$ 32.39 billion. The balance of payment situation remained stable in the year 2010-11 and 2011-12.

Current account deficit (CAD) declined sharply from a record high of US\$ 88.2 billion (4.7 per cent of gross domestic product in 2012-13 to US\$ 32.4 billion (1.7 per cent of GDP) in 2013-14. After staying at dangerously unsustainable levels of well over 4.0 per cent of GDP in 2011-12 and 2012-13, the improvement in Bop position is a welcome relief. This is because even as CAD came down, net capital flows moderated sharply from US\$ 92.0 billion in 2012-13 to US\$ 47.9 billion in 2013-14, that too after a special swap window of the RBI under the non-resident Indian (NRI) scheme, overseas borrowings of banks alone yielded US\$ 34.0 billion. This led to some increase in the level of external debt, but it has remained at manageable levels. The large depreciation of the rupee during the year, notwithstanding sizeable accretion to reserves in 2013-14, could partly be attributed to frictional forces and partly to the role of expectations in the forex market. The rupee has stabilized recently, reflecting an overall sense of confidence in the forex market as in other financial markets of a change for better economic prospects. There is a need to nurture and build upon this optimism through creation of an enabling environment for investment inflows to sustain the external position in a yet uncertain global environment. The India's balance-of-payments (BoP) position improved dramatically in 2013-14, particularly in the last three quarters. This owed in large part to measures taken by the government and the Reserve Bank of India (RBI) and in some part to the overall macroeconomic slowdown that fed into the external sector.

A sharp improvement was seen in the outcome during 2013-14 with the CAD being contained at US\$ 32.4 billion as against US\$ 88.2 billion and US\$ 78.2 billion respectively in 2012-13 and 2011-12. The stress in India's BoP, which was observed during 2011-12 because of the euro zone crisis and inelastic domestic demand for certain key imports, continued through 2012-13 and the first quarter of 2013-14. Capital flows (net) to India, however, remained high and were sufficient to finance the higher CAD in 2012-13, leading to a small accretion to reserves of US\$ 3.8 billion. A large part of the widening in the levels of the CAD in 2012-13 could be attributed to a rise in trade deficit arising from a weaker level of exports and a relatively stable level of

imports. The rise in imports owed to India's dependence on crude petroleum oil imports and higher levels of gold imports since the onset of the global financial crisis. The levels of non-petroleum oil lubricant (PoL) and non-gold and silver imports declined in 2012-13 and 2013-14.

Capital flows (net) moderated sharply from US\$ 65.3 billion in 2011-12 and US\$ 92.0 billion in 2012-13 to US\$ 47.9 billion in 2013-14. This moderation in levels essentially reflects a sharp slowdown in portfolio investment and net outflow in 'short-term credit' and 'other capital'. In the latter half of May 2013, the communication by US Fed about rolling back its program of asset purchases was construed by markets as a sign of imminent action and funds began to be withdrawn from debt markets worldwide, leading to a sharp depreciation in the currencies of EMEs. Those countries with large CADs saw larger volumes of outflows and their currencies depreciated sharply. As India had a large trade deficit in the first quarter, these negative market perceptions led to sharper outflows in the foreign institutional investors (FIIs) investment debt segment leading to 13.0 per cent depreciation of the rupee between May 2013 and August 2013.

The government swiftly moved to correct the situation through restrictions in non-essential imports like gold, customs duty hike in gold and silver to a peak of 10 per cent, and measures to augment capital flows through quasi-sovereign bonds and liberalization of external commercial borrowings. The RBI also put in place a special swap window for foreign currency non-resident deposit (banks) [(FCNR (B))] and banks' overseas borrowings through which US\$ 34 billion was mobilized. Thus, excluding one-off receipts, moderation in net capital inflows was that much greater in 2013-14. The one-off flows arrested the negative market sentiments on the rupee and in tandem with improvements in the BoP position, led to a sharp correction in the exchange rate and a net accretion to reserves of US\$ 15.5 billion for 2013-14.

Current account developments in 2013-14

The broad trend witnessed since 2011-12 continued through to the first quarter of 2013-14. With imports continuing to be at around US\$ 120-130 billion per quarter for nine quarters in a row and exports (except the last quarter of the two financial years) below US\$ 80 billion for most quarters, trade deficit remained elevated at around US\$ 45 billion or higher per quarter for nine quarters till April-June 2013. The widening of the trade deficit in the first quarter mainly owed to larger imports of gold and silver in the first two months of 2013-14. In tandem with developments in the globe of a market perception of imminence of tapering of asset purchases by the US Fed, the widening of the trade deficit led to a sharp bout of depreciation in the rupee. This essentially reflected concerns about the sustainability of the CAD in India. The government and RBI took a series of coordinated measures to promote exports, curb imports particularly those of gold and non-essential goods, and enhance capital flows. Consequently, there has been significant improvement on the external front.

The measures taken led to a dramatic turnaround in the BoP position in the next three quarters and for the full fiscal 2013-14. There was significant pick-up in exports to about US\$ 80 billion per quarter and moderation in imports to US\$ 114 billion per quarter in the next three quarters. This led to significant contraction in the trade deficit to US\$ 30-33 billion per quarter in these three quarters. Overall this resulted in an export performance of US\$ 318.6 billion in 2013-14 as against US\$ 306.6 billion in 2012-13; a reduction in imports to US\$ 466.2 billion from US\$

502.2 billion in 2012-13; and a reduction in trade deficit to US\$ 147.6 billion, which was lower by US\$ 48 billion from the 2012-13 level. As a proportion of GDP, trade deficit on BoP basis was 7.9 per cent of GDP in 2013-14 as against 10.5 per cent in 2012-13.

A study of the performance of trade deficit in 2013- 14 vis-à-vis 2012-13 indicates that of the total reduction of US\$ 48.0 billion in trade deficit on BoP basis, reduction in imports of gold and silver contributed approximately 47 per cent, reduction in non-PoL and non-gold imports constituted 40 per cent, and change in Exports constituted 25 per cent. Higher imports under PoL and non-DGCI&S (Directorate General of Commercial Intelligence and Statistics) imports contributed negatively to the process of reduction to the extent of 12 per cent in 2013-14 over 2012-13.

Net invisibles surplus remained stable at US\$ 28-29 billion per quarter resulting in overall net surplus of US\$ 115.2 for 2013-14. Software services improved modestly from US\$ 63.5 billion in 2012-13 to US\$ 67.0 billion in 2013-14. Non-factor services however went up from US\$ 64.9 billion in 2012-13 to US\$ 73.0 billion partly because business services turning positive in all quarters with net inflows of US\$ 1.3 billion in 2013-14 as against an outflow of US\$ 1.9 billion in 2012-13. Business services have earlier been positive in 2007-08 and 2008-09. Private transfers improved marginally to US\$ 65.5 billion in 2013-14 from US\$ 64.3 billion in 2012-13. However, investment income outgo was placed at US\$ 23.5 billion in 2013-14 as against US\$ 22.4 billion in 2012-13. There has been an increase in the levels of gross outflow in recent quarters reflecting the large levels of net international investment position (IIP), which is an outcome of increased levels of net financing requirements in 2011-12 and 2012-13.

As an outcome of the foregoing development in the trade and invisibles accounts of the BoP, the CAD moderated sharply in 2013-14 and was placed at US\$ 32.4 billion as against US\$ 88.2 billion in 2012-13. In terms of quarterly outcome, the CAD was US\$ 21.8 billion in April-June 2013 and moderated to around US\$ 5.2 billion in July-September 2013, US\$ 4.1 billion in October-December 2013, and further to US\$ 1.3 billion in January-March 2014. As a proportion of GDP, the CAD was 1.7 per cent in 2013-14, which when adjusted for exchange rate depreciation compares favorably with the levels achieved in the pre-2008 crisis years.

Capital/Finance account in 2013-14

Outcomes in 2013-14 were a mixed bag. The higher CAD in the first quarter of 2013-14 was financed by capital flows; but the moderation observed in the fourth quarter of 2012-13 continued through 2013-14. The communication by the US Fed in May 2013 about its intent to roll back its assets purchases and market reaction thereto led to a sizeable capital outflow from forex markets around the world. This was more pronounced in the debt segment of FII. In the event, even though there was a drastic fall in the CAD in July-September 2013, net capital inflows became negative leading to a large reserve drawdown of US\$ 10.4 billion in that quarter. FDI net inflows continued to be buoyant with steady inflows into India backed by low outgo of outward FDI in the first two quarters. In the third quarter, while there was turnaround in the flows of FIIs and copious inflows under NRI deposits in response to the special swap facility of the RBI and banks' overseas borrowing program, there was some decrease in the levels of other flows. This led to a reserve accretion of US\$ 19.1 billion in the third quarter notwithstanding that

the copious proceeds of the special swap windows of the RBI directly flowed to forex reserves of the RBI. In the fourth quarter, while FDI inflow slowed, higher outflow because overseas FDI together with outflow of short term credit moderated the net capital inflows into India.

Thus, for the year net capital inflow was placed at US\$ 47.9 billion as against US\$ 92.0 billion in the previous year. While net FDI was placed at US\$ 21.6 billion, portfolio investment (mainly FII) at US\$ 4.8 billion, ECBs at US\$ 11.8 billion, and NRI deposits at US\$ 38.9 billion, there were significant outflows because short-term credit at US\$ 5.0 billion, banking capital assets at US\$ 6.6 billion, and other capital at US\$ 10.8 billion. The net capital inflows in tandem with the level of CAD led to a reserve accretion of US\$ 15.5 billion on BoP basis in 2013-14. The accretion to reserves on BoP basis helped in increasing the level of foreign exchange reserves above the US\$ 300 billion mark at end March 2014.

OUTLOOK

The improvement in the BoP position during the second half of 2013-14 was swift and owed to exceptional measures like restrictions on non-essential imports and limited period incentives for certain varieties of capital flows and the impact of overall economic slowdown on imports. Sustaining the robust outcome in the medium term is a challenge as some of the restrictions need to be gradually withdrawn and there is need to adjust to not merely the asset purchase shrink by the US Fed but also to the eventual exit from the accommodative monetary policy stance by the advanced economies. Given the as yet uncertain global environment and the frequent bouts of flight to safety of capital on aversion to all kinds of risks, there is need to put in place a mechanism for closely monitoring developments and assessing vulnerabilities to take measures to cope with the situation.

Higher levels of the twin deficits owe to both external and domestic factors. The focus of policy attention should be on fuller pass-through of global oil prices to domestic markets and putting in place alternative instruments for incentivizing domestic savings and lessening thereby the appetite for gold bullion as investment option. One of the important lessons of the turmoil in BoP position in 2013-14 was that the levels of CAD (by implication trade deficit) are important and in the immediate term the need is to ensure that it is limited to sustainable levels that are easily financed by stable sources of capital flows.

While the pick-up in growth in the advanced economies offers some comfort for growth of exports, a pick-up in GDP growth in the domestic economy, less than adequate pass-through of global oil prices to domestic consumers, and a complete withdrawal of restrictions on non-essential imports could potentially strain the BoP position. With close monitoring and policies calibrated to emerging contexts upfront, it is likely that the CAD may be limited to around US\$ 45 billion (2.1 per cent of GDP) in 2014-15, which is likely to be fully financed by stable sources of capital/financial flows leading to a stable exchange rate environment without the need for any major intervention in this regard.

Table 3.3: Balance of Payments (Summary)

India's Balance of Payments (1990-91 to 2013-14) (in USD Millions)								
		1990-91	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
1	Exports	18477	37542	45452	44703	53774	66285	85206
2	Imports	27915	55383	57912	56277	64464	80003	118908
3	Trade Balance	-9438	-17841	-12460	-11574	-10690	-13718	-33702
4	Invisibles (n)	-242	13143	9794	14974	17035	27801	31232
	Non-factor services	980	4064	1692	3324	3643	10144	15426
	Income	-3752	-3559	-5004	-4206	-3446	-4505	-4979
	Private Transfers	2069	12256	12854	15398	16387	21608	20525
	Official Transfers	461	382	252	458	451	554	260
5	Goods & Services Balance [(3 – 4(a))]	-8458	-13777	-10768	-8250	-7047	-3574	-18276
6	Current A/c Balance	-9680	-4698	-2666	3400	6345	14083	-2470
7	External Assistance (n)	2204	891	410	1117	-3128	-2858	1923
8	Commercial Borrowing (Net)	2254	333	4303	-1585	-1692	-2925	5194
9	NRI Deposits	1537	1540	2316	2754	2978	3642	-964
10	F I (net)	103	5117	5862	6686	4161	13744	13000
	Of which:							
	FDI (Net)	97	2093	3272	4734	3217	2388	3713
	Portfolio (Net)	6	3024	2590	1952	944	11356	9287
11	Other flows (net)+	2304	2959	-4383	-615	8321	5735	9476
12	Capital account (n)	8402	10840	8508	8357	10640	17338	28629
13	Reserve use (- increase)	1278	1278	-5842	-11757	-16985	-31421	-26159

Table 3.3 (Continued): Balance of Payments (Summary)

		2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
I	Current Account						
1	Exports	105152	128888	166162	189001	1,82,442	256159
2	Imports	157056	190670	257629	308520	3,00,644	383481
3	Trade Balance (X-M)	-51904	-61782	-91467	-119519	-1,18,203	-127322
4	Invisibles(n)	42002	52217	75731	91604	80,022	79269
	A. Non-factor services	23170	29469	38853	53916	36,016	44081
	B. Income	-5855	-7331	-5068	-7110	-8,038	-17952
	C. Transfers	24493	29825	41706	44798	52,045	53140
5.	Goods & Services Balance (3 - 4A)	-28734	-32313	-52614	-65603	-82,187	-83241
6.	Current A/c Balance (3 - 4)	-9902	-9565	-15737	-27914	-38,181	-48053
II	Capital Account						
1	Capital account balance	24954	46171	107901	7395	51,634	63740
	i. External Assistance (n)	1702	1775	2114	2439	2,890	4941
	ii. External Commercial Borrowing (Net)	2508	16103	22609	7861	2000	12160
	iii. Short Term Debt	3699	6612	15930	-1985	7,558	12034
	iv. Banking Capital (net)	1373	1913	11759	-3245	2,083	4962
	of which NR Deposits (net)	2789	4321	179	4290	2,922	3238
	v. F I (net)	15528	14753	43326	8342	50,362	42127
	of which:						
	A. FDI (net)	3034	7693	15893	22372	17,966	11834
	B. Portfolio (net)	12494	7060	27433	-14030	32,396	30293
	vi. Other flows (net) ^a (net)+	660	4047	10847	-5916	-13,162	-12484
III	Errors and Omission	-516	968	1316	440	-12	-2636
IV	Overall Balance^b	15,052	36,606	92,164	-20080	13,441	13050
V	Reserve use	-15052	-36606	-92164	+20080	-13,441	-13050
	(-) increase/ (+)decrease						

		2011-12 (PR)	2012-013 (PR)	2013-14 (P)
I	Current Account			
1	Exports	309774	306581	318607
2	Imports	499533	502237	466216
3	Trade Balance (X-M)	-189759	-195656	-147609
4	Invisibles(n)	111604	107493	115212
	A. Non-factor services	64098	64915	72695
	B. Income	-15988	-21455	-23028
	C. Transfers	63494	64034	65276
5.	Goods & Services Balance (3 - 4A)	-125661	-130741	-74914
6.	Current A/c Balance (3 – 4)	-78155	-88163	-32397
II	Capital Account			
1	Capital account balance	67755	89300	48787
	i. External Assistance (n)	2296	982	1032
	ii. External Commercial Borrowing (Net)	10344	8485	11777
	iii. Short Term Debt	6668	21657	-5044
	iv. Banking Capital (net) of which NR Deposits (net)	16226 11918	16570 14842	25449 38892
	v. F I (net) of which:	39231	46711	26386
	A. FDI (net)	22061	19819	21564
	B. Portfolio (net)	17170	26891	4822
	vi. Other flows (net) ^a (net)+	-7008	-5105	-10813
III	Errors and Omission	-2432	2689	-882
IV	Overall Balance^b	-12831	3826	15508
V	Reserve use (-) increase/ (+)decrease	12831	-3826	-15508

Source: Collated from various issues of IES. PR: Partially revised. a – includes among others delayed export receipts and rupee debt service. b – Overall balance includes total current account balance, capital account balance

and errors and omissions.

Questions.

- 1. Define the terms 'Balance of Payments' and explain the usefulness of concept of Balance of Payments.**
- 2. Write a detailed note on the balance of payments accounts.**
- 3. The balance of payments always balances. Explain.**
- 4. Describe the causes of disequilibrium in the balance of payments.**
- 5. Explain the measures to correct disequilibrium in the balance of payments.**
- 6. Write a note on India's Balance of Payment position since 1991.**

SEMESTER VI

Module II –BALANCE OF PAYMENTS & WTO.

CHAPTER – 04

WORLD TRADE ORGANISATION

PREVIEW.

- The Origin of WTO.
- Objectives and Functions of WTO.
- WTO agreements regarding TRIPs, TRIMs & GATs.

THE ORIGIN OF WORLD TRADE ORGANIZATION.

During the **Second World War (1939-45)**, the warring nations strictly controlled international trade and payments to finance the war effort. These controls were carried forward into the post war period to finance reconstruction of their devastated economies. However, during the war and in its aftermath, countries were planning to liberalize trade and payments. Thus, plans were made to reduce trade barriers and encourage international lending. Towards this end, the International Monetary Fund and the International Bank for Reconstruction and Development were established to manage the International Monetary System. Trading countries decided to move away from the pre-war bilateralism to multi-lateralism. The multilateral approach led to the drafting of a charter of the formation of an International Trade Organization to be affiliated to the United Nations. The ITO died its embryonic death because the charter was not ratified by the US senate. In the year 1947, major trading countries came together with the purpose of reducing tariffs and encouraging international trade. This agreement bore fruit in the form of GATT (General Agreement on Tariffs and Trade). **Amongst the 23 countries who signed the GATT agreement, India was one and thus the founding member of GATT. The core of GATT is the ‘Most Favored Nation’ clause. K under the MFN clause, each tariff bargain made at a GATT meeting is extended to all members.** GATT rules discourages withdrawals of concessions, outlaw discriminatory practices and prohibit the use of import quotas except by countries facing Balance of Payment problems. However, it provided for the formation of customs unions or free trade area subject to the condition that such formations encouraged flow of trade between the countries and did not raise trade barriers to the disadvantage of other member nations of the GATT.

Progressive reduction of tariffs and trade barriers was sought to be made through different rounds of trade negotiations over a period of time. So far, eight rounds of multilateral trade

negotiations have already taken place. The first round of talks was held at Havana in 1947 and the last and the eighth round of talk was held at Punta del esta in Uruguay in 1986. The Uruguay Round stretched over eight years in negotiations and discussions and yet failed to deliver consensus because huge differences among member nations on issues such as agricultural subsidies, multi-fibre agreement, market access, trade in services, anti-dumping, intellectual property rights etc. In order to break the deadlock in negotiations, **Mr. Arthur Dunkel, Director General of GATT** compiled a detailed document known as Dunkel Proposals and presented it before the member countries as a compromise document. **The Dunkel Proposals finally culminated in an Act on 15th December, 1995 and India signed the agreement along with 117 nations on 15th April, 1994. The signing of the final Act of the Uruguay round by member nations of GATT set the tone for the establishment of the World Trade Organization. India ratified the WTO agreement on 30th December, 1994 and became founder member of the WTO which came into existence on 01st January, 1995.** The WTO now has 149 member countries accounting for more than ninety percent of international trade. China and Taiwan entered the WTO towards the end of 2001. It has underlined the following guiding principles for member nations in the sphere of international trade:

1. Countries should work to lower trade barriers.
2. All trade barriers should be applied on a non-discriminating basis across nations i.e. all nations should enjoy 'MFN' status.
3. When a country increases its tariffs above agreed upon levels, it must compensate its trading partners for the economic injury, and
4. Trade conflicts should be settled by consultations and arbitration.

OBJECTIVES OF THE WTO.

The objectives of the WTO as spelt out in the preamble to the Marrakesh Agreement are as under:

1. Elimination of discriminatory treatment in International Trade relations.
2. Reduction of tariffs and non-tariff barriers to trade.
3. Facilitate higher standards of living, full employment and a steadily growing volume of real income and effective demand.
4. Ensuring full and efficient use of the world resources.
5. To ensure that the Less Developed Countries and the developing countries secure a fair share in the growth of international trade in conformity with their development requirements.
6. To ensure a sustained expansion of output and international trade, and

7. To promote an integrated, viable and durable world trading system.

FUNCTIONS OF THE WTO.

The WTO has the following five specific functions:

1. To facilitate the implementation, administration and operation and further the objectives of the Multilateral Trade Agreements and to provide the framework for the implementation, administrative and operation of plurilateral trade agreements.
2. To provide a forum for negotiations among its members concerning their multi-lateral trade relations in matters dealt with under the agreements.
3. To administer the ‘understanding on rules and procedures governing the settlement of disputes’.
4. To administer the ‘Trade Review Mechanism’, and
5. To achieve greater coherence in global economic policy making, the WTO shall cooperate, as appropriate with the International Monetary Fund and the International Bank for Reconstruction and Development and its affiliated agencies.

WTO AGREEMENTS REGARDING TRIPs, TRIMs & GATs.

India being a founder member of the WTO and a signatory to the WTO agreement on TRIPs, TRIMs and GATs, these agreements were put into force with the transformation of GATT into WTO on 01st January, 1995.

TRADE RELATED INTELLECTUAL PROPERTY RIGHTS. In India, patents were covered under the Patent Act of 1970 which was not in conformity with the provisions of Article 27 of the TRIPs agreement. The Patent Act of 1970 provided for process patenting and not product patenting. The TRIPs agreement allowed countries like India a framework for providing product patents in the fields of pharmaceuticals and agricultural chemicals. The agreement on TRIPs was to be enforced in its entirety from 01st January, 2005.

The agreement on TRIPs requires member countries to provide patent protection to all products or processes in all fields of technology. This protection is granted subject to the following three conditions:

- a) The product or the process is a new one.
- b) It contains an inventive step.

- c) It is capable of industrial application for 20 years from the grant of the patent.

TRIPs agreement covers the following seven intellectual properties:

- a) Patents.
- b) Copyrights and other related rights.
- c) Geographical indications.
- d) Industrial designs.
- e) Trade marks.
- f) Layout designs of integrated circuits.
- g) Undisclosed information including trade secrets.

Under the agreement on TRIPs, patents are made available for both product and process inventions in the field of industrial technology. The industrial, agricultural and the biotechnology sectors are covered under the patent provisions. The patent regime is feared to affect the drugs and pharmaceutical industry in India. It is estimated that about 70 per cent of the drugs will be covered by the new patent laws. This will entail royalty payment to the patent holders resulting in a steep rise in prices of drugs in India. However, there are conflicting estimates of the percentage of the drugs that will be covered by the new patent laws. For instance, Bibek Debroy, Director, Rajiv Gandhi Institute for Contemporary Studies observed that only less than ten per cent of the drugs are covered by the patents worldwide. The rest of the drugs have become generic, i.e. they need no protection. TRIPs also extend patent like protection to agriculture. Accordingly, protection is sought to be extended to micro-organisms, non-biological and micro-biological processes and plant varieties. Article 27 of the agreement on TRIPs states that India may provide for protection of plant varieties either by patent or by an effective sui-generic system or by a combination of both. **India's ancient use of Haldi (Turmeric) was sought to be patented under the American Law in 1995. Dr. RA Mashelkar, Director General of Council of Scientific and Industrial Research challenged it. The US patent office acknowledged its mistake and cancelled the patent on Haldi. An American company has been granted a patent right for Neem as a pesticide. Basmati rice which was a universal variety in India has been patented as Kasmati and Texmati. Attempts are being made to patent Tulsi (Basil). India needs to work hard on documenting its traditional knowledge on Ayurvedic and herbal plants and obtain patent protection or a sui-generic system in order to prevent bio-piracy.**

TRADE RELATED INVESTMENT MEASURES (TRIMs).

The text on TRIMs provides that governments shall not discriminate against foreign capital i.e. foreign capital should be given national treatment. The main features of the text on TRIMs are as follows:

- a) All restrictions on foreign capital, investors and companies should be abandoned.

- b) National treatment to foreign investors i.e. they will be given the same rights as a national investor has about investment.
- c) Unrestricted investment in all spheres of economic activities.
- d) No limitation on the extent of foreign investment in any economic activity.
- e) Free imports of raw materials and components.
- f) Local content clause will not be imposed on foreign investors.
- g) No mandatory export obligations on foreign investors.
- h) Elimination of restrictions on repatriation of dividend, interest and royalty income.
- i) Complete exclusion of provisions such as phased manufacturing programs which is intended to increase the indigenous content in manufacture.

The developing countries were required to remove prohibitory conditions that favor domestic industry by 2000. India notified the TRIMs required by it before 2000. It notified two TRIMs conditions namely; the one relating to local content requirements in the production of certain pharmaceutical products and the second relating to dividend balancing requirements in the case of investment in 22 categories of consumer items. These were to be eliminated by 01st January, 2000. The developing countries including India requested for extension of transition period for the elimination of the notified TRIMs. The Seattle Ministerial Conference and Cancun conferences failed and hence no final decision is taken on this request of the developing countries. Restrictions on foreign capital investment both portfolio and direct have been progressively reduced and more and more industries and sectors of the national economy have been thrown open to foreign investment. The opening of the insurance sector in foreign direct investment has been the latest in the league with the international airlines industry very much on the block. FDI in the insurance sector was limited to 24 % until now. The Parliament took a decision to raise the FDI limit in the insurance sector to 49% in December, 2014.

GENERAL AGREEMENT ON TRADE IN SERVICES (GATs).

GATS include all services such as financial services, telecommunications, transport, and tourism, audio visual and professional services. Member countries are required to fulfill certain basic obligations about international trade in services. **GATS are applicable to those service providers who enter transaction with consumers of foreign countries, for instance tourism. It also applies to services provided by the commercial presence of a supplier of one country in the territory of another, for instance a bank providing banking service in another country. Further, it is applicable to services supplied by companies of one country in the territory of another. But, GATS do not cover services provided by the government which are not supplied on a commercial basis. Member countries are obliged to provide MFN status to other member countries. Member countries must maintain transparency in trade**

in services. Accordingly, each country is required to publish all her relevant laws and regulations pertaining to services along with international agreements pertaining to trade in services. Every member country is required to provide information sought by any other member country relating to any service covered by GATS. **Member countries are also required to give national treatment to Foreign Service providers.**

Only those countries facing balance of payment problems are exempted from the application of GATS. Member countries may also be exempted on the grounds of national security and for protecting public order. Member countries are required to provide market access to Foreign Service providers. Hence no restrictions will be placed on the number of service suppliers, total value of service transactions, and the total number of service operations, joint ventures through which service may be supplied and the participation of foreign capital. However, it has excluded labor movement from its purview. It allows countries to apply immigration laws to regulate the entry of persons into their territories. Countries can apply visa requirements selectively to some countries and not others.

There is a huge developmental gap between the quality and quantity of services provided by the developed and developing countries. The main exporters of services are the USA, France, Japan and Netherlands and they account for 60 per cent of the world trade in services. These countries will enjoy the benefits of including services in the WTO agreement arrived at the Uruguay Round and thus the share of the developing countries in services will decline. However, the service exports of India have got a boost because of GATS. India has recorded a high growth in the export of services during the period 2003-04 to 2007-08. Service exports grew at a CAGR of 35.4 per cent per annum. In the wake of the GFC of 2008, the growth rate of service exports fell to a mere 8.3 % per annum during the post-crisis period (2008-09 to 2012-2013). In 2012, while India's share in world merchandise exports was 1.7 per cent, her share in world commercial services exports was 3.4 per cent. The growth rate of service exports in the years 2012-13 and 2013-14 were down to 2.4 and 4.0 per cent respectively.

Questions.

1. Explain the impact of WTO on India regarding TRIPs, TRIMs and GATS.
2. Explain the origin, objectives and functions of WTO.

CHAPTER: 5

FOREIGN EXCHANGE MARKET

PREVIEW.

- ❑ **Concept of Foreign Exchange Market.**
 - ❑ **Functions of Foreign Exchange Market.**
 - ❑ **Dealers in the Foreign Exchange Market.**
 - ❑ **Spot and Forward rates of Exchange.**
 - ❑ **Hedging, Arbitrage and Speculation.**
-

CONCEPT OF FOREIGN EXCHANGE MARKET.

The foreign exchange market is the international market in which foreign currencies are bought and sold. It is an arrangement for buying and selling of foreign currencies in which exporters sell the foreign currencies and importers buy them. The players in the foreign exchange market are exports and importers, travelers and investors, traders, speculators and brokers and commercial banks and central banks of different countries of the world. The US Dollar was exchanged for 61.92 Indian rupees on 09th December, 2014. The rupee – dollar exchange rate was therefore Rs.61.92 for one US Dollar or One Indian rupee would fetch 0.016 US Dollars or Rs.100 would be exchanged for USD 1.61. The Rupee – Pound Sterling exchange rate on the same day was Rs.96.37 which means the Pound Sterling – Rupee exchange rate would be UK Pound Sterling 0.01 for one Indian rupee. One Euro was exchanged for Rs.76.10 on the same day. In the foreign exchange market, there are two different rates for buying and selling of foreign currencies. This difference arises due to transaction cost in dealing with foreign currencies.

Broadly there are two systems of exchange rate determination. They are known as fixed and flexible or floating exchange rate systems. Under the **fixed exchange rate** system, the foreign exchange rate is fixed by the government. The fixed exchange rate was established in the year 1944 under an agreement reached at Bretton Woods in New Hampshire, USA. Under this system, at the fixed exchange rate, if there is disequilibrium in the balance of payments giving rise to either excess demand or supply of foreign exchange, the Central Bank of the country must buy and sell the required quantities of foreign exchange to eliminate the excess demand or supply. The system of exchange rate in which the exchange value of a currency is determined by

the market forces of demand and supply of foreign exchange is known as flexible or floating exchange rate system.

The **flexible exchange rate** system came into existence after the fall of the fixed exchange rate system in 1977. The changes in the exchange value of a currency in the foreign exchange market are known by the terms appreciation and depreciation. For instance, if the rupee – dollar exchange rate becomes Rs.65.05 in a few days hence, the rupee would be said to have depreciated against the dollar. Conversely, if the rupee – dollar exchange rate becomes Rs.60.05 then the rupee would be said to have appreciated against the dollar. The changes in the exchange rate are determined by the market forces in a flexible exchange rate system. In the case of fixed exchange rate system, the central bank must buy or sell foreign exchange so that the exchange rate is maintained at the pegged or fixed level. However, the fixed exchange rate could be changed through devaluation or revaluation only with permission from the IMF in case of fundamental disequilibrium in the balance of payments. Thus, if a country was running large and persistent deficit in her balance of payments, it could devalue its currency to improve the balance of payment position. Conversely, if a country was running large and persistent surpluses in the balance of payments, it could revalue its currency so that correction is made.

The **IMF** maintains funds which are contributed by member countries and gives loans to member countries from its reserves when they face temporary deficit in the balance of payments. If a member country has a persistent deficit in the balance of payment, the IMF would permit such a country to devalue its currency to correct the deficit so that a relatively stable or fixed exchange rate system was maintained for the promotion of world trade. To maintain the exchange rate at a given level, the central banks of different countries were required to maintain reserves of foreign currencies. The international reserve currencies are the **US dollar, UK Pound Sterling, German Deutsche marks and the Japanese Yen.**

FUNCTIONS OF THE FOREIGN EXCHANGE MARKET.

1. **Transfer Function.** The main purpose of the foreign exchange market is to help the conversion of one national currency into the national currency of another country. While the conversion takes place, purchasing power is transferred between the countries through the instruments of international payment mechanism such as telegraphic transfers, bank draft and foreign bills of exchange.
2. **Credit Function.** The foreign exchange market provides credit both national and international to promote foreign trade. For instance, foreign bills of exchange and letters of credit are used in international payments. A foreign bill of exchange with a maturity period of three months reflects a credit period of three months. It is a facility available to the importers whereas the exporters have the facility of discounting if they need money before the maturity period of the bill.
3. **Hedging Function.** The foreign exchange rate is determined by the demand for and supply of foreign currencies. The market conditions are dynamic and hence the foreign exchange rates between two national currencies keep changing from time to time. The change in the exchange rates involves the element of risk. Both exporters

and importers try to cover the risk through an institutional arrangement called the forward exchange market. The 'forward exchange market' is a market arrangement where buyers and sellers of foreign exchange come to a mutual agreement to exchange currencies at a given rate on a future date. Thus, a forward contract helps to hedge or cover the risk involved in fluctuating exchange rates. For instance, suppose an Indian exporter to USA is expecting a payment of \$ 20,000 three months hence from a US importer. The Indian exporter can fix the rupee value of his dollar receivables amounting to \$ 20,000 three months forward at a rupee-dollar conversion rate agreed upon today. Similarly, an importer can fix the home currency value of payables by buying foreign exchange forward. Banks offer forward contracts to individual importers and exporters according to the amount and maturity.

DEALERS IN THE FOREIGN EXCHANGE MARKET.

Under the Foreign Exchange Management Act 1999, the RBI has the power to give licenses to commercial banks and financial institutions to deal in foreign exchange. These bank and institutions are known as **authorized dealers**. **Co-operative** banks are also authorized deal in foreign exchange. Banks cover their open positions in currencies in London through their correspondents or branches abroad or in India in the inter-bank market. The authorized dealers dispose off their currencies by matching demand and supply in the inter-bank market. The unmatched net requirements are purchased from or sold to the Reserve bank of India. **These dealers are classified into three categories, namely, Category 'A', Category 'B' and Category 'C'**. The authorized dealers under Category 'A' can undertake all types of foreign exchange transactions through their **dealing rooms**. Category 'B' dealers include branches of banks handling all types of foreign exchange transactions and reporting to the dealing room of their banks. These branches **cannot** involve in dealing room transactions. Category 'C' dealers can undertake limited transactions. For instance, sale and purchase of foreign currencies, travelers check etc. **The foreign exchange market consists of the Central bank, authorized dealers, individual and firms, brokers and speculators and arbitrageurs.**

The foreign department of a bank draws up a position sheet on daily basis for each currency. The sale and purchases of currency is recorded in the position sheet on daily basis. The banks do not take any exchange risk by keeping uncovered balance and they therefore cover their position at the end of the day. When purchases exceed sale, the credit balance is positive and overbought. This is to be covered by equal sales of that currency. When the sales exceed purchases, the debit balance is negative, short or oversold position and is to be covered by equivalent purchases. These sales and purchases include both spot and forward deals. Before entering the inter-bank market, the banker decides how much to cover and what is the outstanding balance position in his books? Banks operate in the inter-bank market through the foreign exchange brokers. In every important center, some brokers operate in these dealings. The banker keeps some minimum balances in all his Nostro accounts to meet the customer needs as they arise. The more exactly he synchronizes the delivery dates of his purchases and sales, the greater is his profit. The finer the rates he quotes, the better is his position. The better he foresees the trends in exchange rates and interest rates in various centers, the more efficient he is and the better is his profitability.

In the inter-bank market, banks put through the dealings of purchase and sale of currency through authorized brokers. Brokers in each center are in contact with other centers in India and in foreign countries for effecting matching transactions in various currencies. In all centers, export bills, import bills and various remittances are daily purchased and sold by banks. Imports give rise to payments abroad and purchase of foreign currencies. As the bulk of the imports in India are on government account and the SBI keeps the account of the government undertakings and of the government, the SBI enters the foreign exchange market mostly as a buyer of foreign currencies. Exports are concentrated in the private sector in which all banks are involved in different degrees. Hence sales of foreign currencies in the exchange market are more evenly spread among the banks in India. In India, Mumbai, Kolkata and Chennai are the developed foreign exchange markets.

The Global Foreign Exchange Market. The global foreign exchange market is a 24-hour market with no national boundaries and without any central meeting place. However, a large part of the business is concentrated in three financial centers of New York, London and Tokyo. Out of these, the London Foreign Exchange market is the largest. A large part of the market in French Francs, Swiss Francs, Italian Lira and Spanish Pesetas is in London. The Tokyo Foreign Exchange market dominates in Asia and is replaced by Frankfurt, Switzerland, Paris and London as the sun moves west. The day's trading reaches its peak during European waking hours.

The foreign exchange market has no physical location. It is a telephone market, working directly between banks and their clients. The great part of the activity occurs between banks located in London, New York and Tokyo. Changes in net foreign exchange positions arise continuously as banks deal with their corporate clients. To accommodate those customers effectively without holding large inventories, banks rely on the inter-bank market. Inter-bank trading for most major banks accounts for 90 percent of total transactions volume. Only a bank that is active in the inter-bank market can buy and sell foreign exchange in substantial amounts. Profitable foreign exchange trading requires the acquisition of timely and relevant information. Traders' access to detailed information and their skill in interpreting it allows them to take positions that are profitable overtime. Banks seek to control the risks they take. Most do so by limiting the size of positions that traders can take. The allocation of these limits is influenced by the bank's strategic objectives with respect to foreign exchange trading by currencies, by the credit worthiness of the counter parties and by each dealer's track record. Regulatory capital requirements imposed by the Reserve Bank of India, Federal Reserve, the Bank of England and other banking authorities play an important role in the determination of trading position controls.

The foreign exchange market moves with the sun. The trading day starts in Tokyo. Traders in Tokyo will be in touch early in the morning with their colleagues on the West Coast of the United States to obtain closing prices and information regarding market conditions. Thus, foreign exchange rates are continually changing and the market never sleeps. As foreign exchange positions are always subject to risk, banks have a policy of keeping their overnight positions at the end of the day much smaller than those during the day often referred to as day light limits. Since many large international banks have affiliates and trading operations in financial centers around the world, attempts have been made to avoid the constraints on trading imposed by the necessity to reduce inventories toward the end of the trading day by passing on any ending inventories to the next affiliate, it becomes that affiliate's starting position. In this

case, decisions to buy and sell are not limited by the necessity to reduce or build up inventories in various currencies to levels that are optimal from a trading standpoint.

SPOT, FORWARD AND THE SWAP MARKETS.

The foreign exchange market has three different segments with three types of transactions. These segments are known as the spot, the forward and the swap market.

- 1. The Spot Market.** The spot market is a market where foreign exchange is bought or sold for immediate delivery. It means that delivery of foreign exchange will take place after two business days. For example, Company 'A' agrees to purchase spot US dollars 50 million from Bank 'B' against Pound Sterling on a given day at a given rate of exchange. Bank 'B' will deliver \$ 50 Million to Company 'A' by crediting the amount in a bank account specified by Company 'A' after two days from the day on which the contract was made. If the date of contract was 01st June 2006 then the delivery date would be 03rd June 2006 provided 03rd June 2006 is not a business holiday either in London or New York. If it is a business day, the delivery date is the next eligible business day.
- 2. The Forward Market.** The forward market is a market where foreign exchange is bought and sold for delivery at a future date i.e. more than two business days ahead at an exchange rate agreed upon today. For instance, an Indian exporter to US is expecting a payment of \$ One Million three months from now from a US importer. To fix the rupee value of his dollar receivables, he can sell \$ One Million three months forward at a Rupee-Dollar exchange rate agreed upon today. In the same manner, an importer can fix the home currency value of payables by foreign exchange forward. Banks offer forward contracts according to individual requirements in terms of amount and maturity.
- 3. The Swap Market.** The Swap market is a market where spot and forward contracts are entered simultaneously by two parties. For instance, a British multi-national has an Indian subsidiary. The parent company has a temporary excess liquidity in pound sterling but the Indian subsidiary needs six-month rupee financing. In this case, the parent company can enter a swap deal. It can buy rupees in the spot market for £ One Million and lend rupees to the Indian subsidiary. At the same time, it buys £ One Million six months forward at a rate known today. It protects itself against the risk of possible devaluation of the Indian rupee during the six-month period of the loan. Thus, a swap deal involves simultaneous spot deal and a matching forward deal in the opposite direction.

When a currency like dollar commands a lower price against another currency like pound sterling in the forward market, then in the spot market it is said to have a **forward discount**. If the forward price is higher, it is said to be at a **forward premium**. There are different currencies, exchange rates and currency markets in the world. The markets and exchange rates are tied together by arbitrage.

HEDGING, ARBITRAGE AND SPECULATION.

Hedging refers to covering risk involved in fluctuating exchange rates. Hedgers are traders who undertake foreign exchange trading because they have assets or liabilities in foreign currency. The change in the exchange rates involves the element of risk. Both exporters and importers try to cover the risk through an institutional arrangement called the forward exchange market. The 'forward exchange market' is a market arrangement where buyers and sellers of foreign exchange come to a mutual agreement to exchange currencies at a given rate on a future date. Thus, a forward contract helps to hedge or cover the risk involved in fluctuating exchange rates. For instance, suppose an Indian exporter to USA is expecting a payment of \$ 20,000 three months hence from a US importer. The Indian exporter can fix the rupee value of his dollar receivables amounting to \$ 20,000 three months forward at a rupee-dollar conversion rate agreed upon today. Similarly, an importer can fix the home currency value of payables by buying foreign exchange forward. Banks offer forward contracts to individual importers and exporters per the amount and maturity.

Arbitrage refers to the act of buying foreign exchange cheap and selling at a higher price. For instance, in the Zurich foreign exchange market, \$ One buys five Swiss Francs, Five Swiss Francs buy three Marks and three Marks buy \$ 1.50. Arbitrageurs will simultaneously sell francs for marks and sell marks for dollars. Arbitrageurs will continue to buy and sell in this manner until marks fall in value so that three marks purchase only one dollar. This is known as a **three-way transaction**. Similarly, if the dollar is cheaper relative to the mark in London then it is in Hamburg, arbitrageurs will simultaneously buy dollars for marks; in London and sell them in Hamburg. This will bring their prices back into line on the two exchanges. The possibility of arbitrage keeps exchange rates in line around the world because huge amount of money can be mobilized in response to a small gain.

Speculation is involved in buying and selling of foreign currencies. The existence of the forward and swap transactions in the foreign exchange market points to the activities of speculators. Both hedgers and arbitrageurs are speculators in the foreign exchange market. Their activities contribute to fluctuation exchange rates in the foreign exchange market.

Foreign exchange traders and brokers, commercial banks, hedge funds, and other financial companies represent the speculators in the foreign exchange market. Speculators in foreign exchange markets want to make profit from buying currency at a lower price and selling it a higher price. Speculators make a profit from fluctuations in exchange rates. The interbank foreign exchange market consists of large commercial banks and financial firms. These are the major speculators in the foreign exchange markets. The interbank market helps to determine the bid (buy) and ask (sell) price of currencies. This market has no trading floor, but banks can trade with each other directly or via electronic brokerage systems that connect market participants. Multinational companies are also involved in speculation because they make or receive payments denominated in various currencies to and from firms around the world. These currencies fluctuate on a daily basis.

QUESTIONS.

1. Explain the meaning and functions of foreign exchange market?

2. Explain the segments of the Foreign Exchange market?
3. Write a note on Foreign Exchange Dealers.
4. Explain the concepts of hedging and speculation with reference to the foreign exchange market.

CHAPTER: 6

EXCHANGE RATE DETERMINATION

PREVIEW.

- ❑ Exchange Rate Determination.
- ❑ Purchasing Power Parity Theory.
- ❑ Role of Central Banks in the Foreign Exchange Market.
- ❑ RBI's Intervention in the Foreign Exchange Market since 1991.

DETERMINATION OF EXCHANGE RATE.

The free market exchange rate of a currency is determined by the market forces of demand for and supply of foreign exchange. If there are two countries, India and the USA, the exchange rate of their currencies (rupee and dollar) will be determined by American demand for Indian exports and Indian demand for American exports. Indian demand for American exports means Indian demand for US dollars. Similarly, American demand for Indian exports means American demand for Indian rupees.

Demand for Foreign Exchange (US Dollars). The demand for US dollars in India is a function of the demand for US goods and services by Indian firms and individuals. There is a direct relationship between demand for US exports from India and the demand for US dollars. The demand for dollars may also arise due to Indian citizens and firms wanting to purchase assets in the United States give loans or send gifts to friends in the United States. The demand for dollars can be realized by exchanging rupees for dollars with the central bank. The demand curve for US dollars will be downward sloping as the demand for US dollars will be inversely proportionate to the rupee dollar exchange rate. Higher the exchange rate, lower will be demand for US dollars and vice versa. The demand for US dollars is shown by the demand curve DD in Fig.13.1 below.

Supply of Foreign Exchange (US Dollars). The supply of US dollars results from the demand for Indian exports from USA. The supply of US dollars will be directly proportional to the supply of exports from India to the United States. The supply of US dollars may also arise from the demand for US citizens and firms to purchase assets in India or to give loans and gifts to people in India. The supply of US dollar is derived from the demand for Indian rupees or the demand for Indian exports. The supply curve of dollars in terms of rupees is positively sloping as shown in Fig.13.1 below. Higher the rupee dollar exchange rate, higher will be the supply of US dollars and vice versa.

The Equilibrium Exchange Rate (Rs/\$). The equilibrium exchange rate will be determined by the intersection demand for and supply curve of dollars. Such an equilibrium point in Fig.13.1 is point 'E' and the equilibrium exchange rate is OR with OQ quantity of demand and supply of US dollars. At a higher price of dollars i.e. OR_1 the quantity supplied of dollars is greater than the quantity demanded by 'ab'. Excess supply of dollars will push the prices down back to the equilibrium level. Similarly, if the exchange rate is OR_2 , there will be excess demand for US dollars and demand for dollars will exceed its supply by 'cd' causing the exchange rate to go up and stabilize at the equilibrium exchange rate OR.

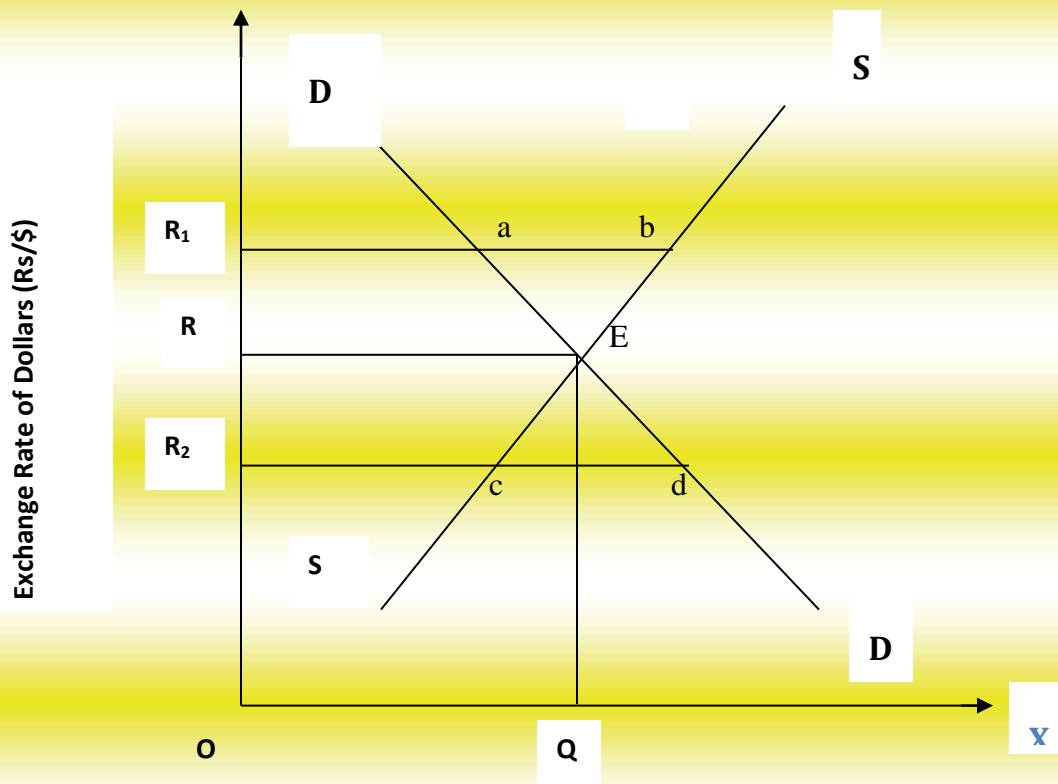


Fig.13.1: Equilibrium Exchange Rate

Changes in the Exchange Rate. The changes in the exchange rate are caused by changes in the factors that determine the demand for and supply of foreign exchange. For example, an increase in US national income will cause an increase in the demand for Indian exports which will lead to an increase in the supply of dollars in the foreign exchange market. The supply curve will shift thus to the right as S_1S_1 as shown in Fig. 13.2 below. The increase in the supply of dollars because an increase in the demand for Indian exports will lower the exchange rate of dollars in terms of rupees from OR to OR_1 . Thus, the dollar will depreciate and to that extent the rupee will appreciate. The new equilibrium exchange rate will be determined by point E_1 . The depreciation of dollar by RR_1 is caused by the excess supply of dollars equal to EF.

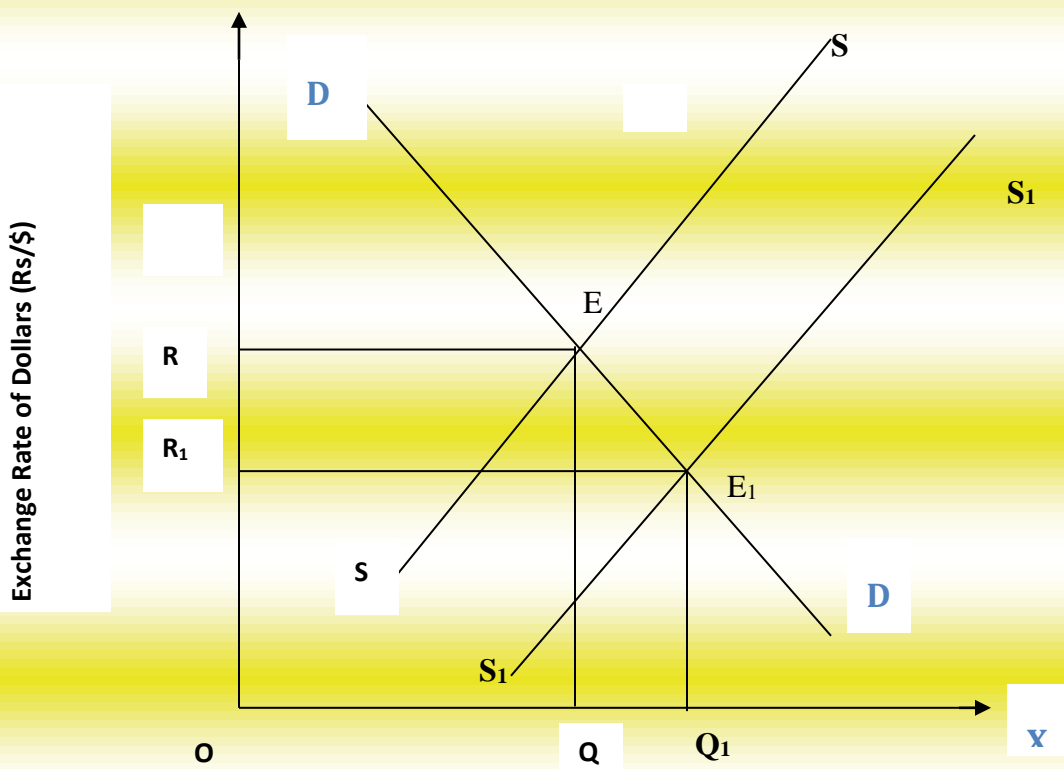
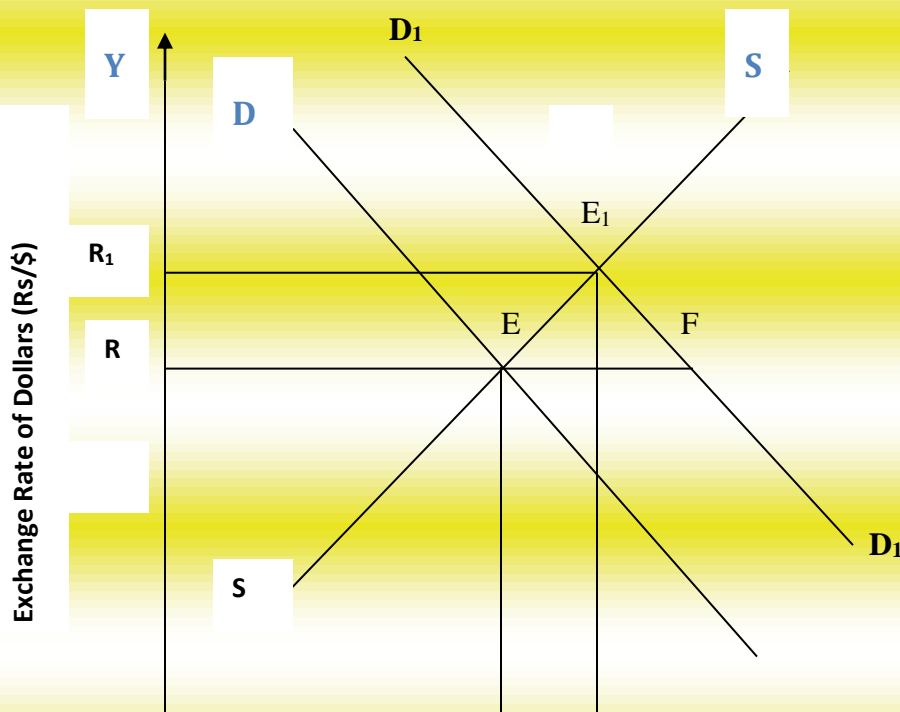


Fig.13.2: Equilibrium Exchange Rate



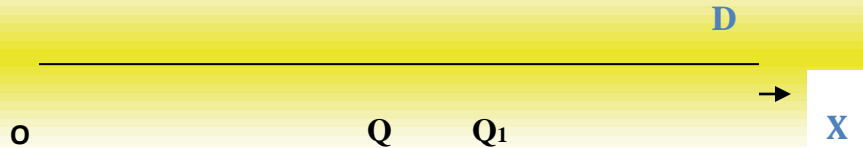


Fig.13.3: Equilibrium Exchange Rate

Further, an increase in the national income of India may cause an increase in the demand for US exports to India. Such an increase will lead to increase in demand for dollars. The increase in demand for dollars is shown by a rightward shift of the demand curve in Fig.13.3. Because excess demand for dollars over supply at the equilibrium exchange rate OR, the dollar price rises or appreciates and the new equilibrium exchange rate OR₁ is determined.

PURCHASING POWER PARITY THEORY.

The purchasing power parity theory of exchange rate determination was put forward by Professor Gustav Cassel of Sweden in the year 1920. There are two versions of the PPP theory known as the absolute and the relative versions. According to the absolute version, the exchange rate between two currencies should be equal to the ratio of the price indexes in the two countries. The formula for the absolute versions of the theory is as follows:

$$R_{AB} = P_A/P_B$$

Here, R_{AB} is the exchange rate between two countries A and B and ‘P’ refers to the price index. The absolute version is not used because it ignores transportation costs and other factors which hinder trade, non-traded goods, capital flows and real purchasing power.

The relative version which is widely used by Economists can be illustrated as follows. Let us assume that India and the United States are on inconvertible paper standard and the domestic purchasing power of \$1 in the US is equal to Rs.45 in India. The exchange rate would therefore be \$1 = Rs.45. Assuming the price levels in both the countries to be constant, if the exchange rate moves to \$1 = Rs.40, it would mean that less rupees are required to buy the same bundle of goods in India as compared to \$1 in the US. It means that the US dollar is overvalued and the Indian Rupee is undervalued. Appreciation of the rupee will discourage exports and encourage imports in India. Thus, the demand for USD will increase and that of INR will fall till the PPP exchange rate is restored at \$1 = Rs.45. Conversely, if the exchange rate moves to \$1 = Rs.50, the INR is overvalued and the USD is undervalued. This will encourage exports and discourage imports till once again the PPP exchange rate is restored.

According to the PPP theory, the exchange rate between two countries is determined at a point of equality between the respective purchasing powers of the two currencies. The PPP exchange rate is a moving par which changes with the changes in the price level. To calculate the equilibrium exchange rate under the relative version of the theory, the following formula is used:

$$R = R_0 \times \frac{P_{A1}/P_{A0}}{P_{B1}/P_{B0}}$$

Where 0 = base period,
 1 = period one,
 A&B = Countries A and B.
 P = Price Index.
 R₀ = Exchange rate in the base period.

Assuming the price index of Country 'A' (India) to be 100 in the base period and 300 in period one and that of United States to be 100 and 200 in the two periods respectively and the Original exchange rate to be Rs.40, the new PPP exchange rate would be as follows:

$$R = 40 \times \frac{300/100}{200/100} = \frac{300}{100} \times \frac{100}{200} = \frac{3}{2} = 1.5 = \text{Rs.60}$$

Thus Rs.60/- or \$1 = INR 60 will be the new PPP exchange rate. However, in reality, the PPP exchange rate will be modified by the cost of transporting goods including duties, insurance, banking and other charges. These costs are the limits within which the exchange rate can fluctuate given the demand supply situation. These limits are the 'upper limit' or the commodity export point and the 'lower limit' or the commodity import point.

Critical Assessment of the PPP Exchange Rate Theory. The PPP theory is criticized on the following grounds:

1. **Price Indices of Two Countries are not comparable.** The base year of indices in two countries may be different. The consumption basket may also be different. The PPP rate may not therefore give an accurate exchange rate based on the relative purchasing powers of any two currencies.
2. **Base Year is Indeterminate.** The theory assumes that the balance of payments is in equilibrium in the base year. It is difficult to find the base year in which the balance of payment was in equilibrium.
3. **Capital Mobility Influences the Price Level.** The theory assumes that there is no capital mobility. The general price level does not affect items such as insurance, shipping, banking transactions etc. However, these items influence the exchange rate.
4. **Changes in the Exchange Rate affects the General Price Level.** When the exchange rate depreciates, the domestic price level is influenced by the rise in import prices. Demand for exports increases, thereby raising the price of export goods. Conversely, when the exchange rate appreciates, exports are affected and imports become cheaper, thus bringing about a fall in the price level.
5. **Laissez Faire does not exist.** The theory is based on the policy of laissez-faire. However, laissez faire does not exist. International trade is greatly influenced by restrictive and protective trade policies. Non-market forces therefore influence the exchange rate.

6. **Elasticity of Reciprocal Demand influences Exchange Rates.** According to Keynes, the theory neglects the influence of elasticity of reciprocal demand. The exchange rate is not only determined by relative prices but also by the elasticity of reciprocal demand between trading countries.
7. **Changes in the Demand for Imports and Exports influence Exchange Rate.** The exchange rate is not determined by purchasing power parity alone. The demand for imports and exports also influence exchange rate. If the demand for imports rise, purchasing power parity remaining constant, the exchange rate will rise and vice versa.

Conclusion.

Despite the limitations, the PPP exchange rate theory is widely used in development economics to ascertain the real level of development of an economy. The theory is therefore useful and PPP exchange rate is therefore a useful macroeconomic tool. Haberler in support of the theory says that, “While the price levels of different countries diverge, their price systems are nevertheless interrelated and interdependent, although the relation need not be that of equality. Moreover, supporters of the theory are quite right in contending that the exchanges can always be established at any desired level of appropriate changes in the volume of money.

ROLE OF CENTRAL BANKS IN THE FOREIGN EXCHANGE MARKET.

Under the fixed exchange rate regime, the flexible exchange rate regime or in the case of managed flexibility, the role of the Central Bank in maintaining either exchange rate stability or domestic price stability remains. In the case of flexible or floating exchange rates, the equilibrium exchange rates change according to the changes in the demand for and supply of foreign exchange in the foreign exchange market. With depreciation, the domestic money supply will fall leading to credit contraction and falling prices. To restore domestic price stability, the Central bank must increase money supply through an expansionary monetary policy so that domestic income, employment and output do not become negative. Thus, under flexible exchange rates if import demand is relatively inelastic, the currency must depreciate and settle at a higher equilibrium exchange rate. In this case, the monetary policy will have no role to play in maintaining exchange rate stability. However, the shocks of appreciation and depreciation on the domestic economy can be neutralized by contractionary and expansionary monetary policies and domestic price stability can be maintained. Under a fixed exchange rate regime like the dollar standard under the International Monetary Fund, the equilibrium exchange rate can only be maintained by Central bank’s intervention in the foreign exchange market. Thus, when the demand for dollars rises than what is being supplied, the equilibrium exchange rate is maintained by running down the foreign exchange reserves to bridge the demand – supply gap. However, Central Bank’s intervention will lead to contraction in money supply. The consequences of contraction can be neutralized by expansionary monetary policy i.e., increasing money supply through open market operations, reducing the bank rate or by reducing the cash reserve ratio. However, if there is a persistent deficit in the balance of payments, the Central Bank with little foreign exchange reserves will have no alternative but to devalue the domestic currency. Thus, exchange rate stability can be maintained if disequilibrium is a short-term phenomenon.

However, under the conditions of long term disequilibrium, i.e., in the event of persistent deficits in the balance of payments, the overvalued currency must be devalued and similarly in the event of persistent surpluses the undervalued currency must be revalued. Both revaluation and devaluation will have destabilizing effects on the domestic price level.

RBI'S INTERVENTION IN EXCHANGE RATE MANAGEMENT SINCE 1991.

India followed a fixed exchange rate system until the adoption of new economic policy in 1991. However, after the adoption of floating exchange rate policy in 1993, the exchange rate of rupee versus the dollar became volatile. The foreign exchange rate of Indian rupee began to fluctuate greatly with changing market conditions. To prevent both depreciation and appreciation on a large scale, the Reserve Bank of India must take appropriate monetary measures to maintain stability in the foreign exchange rate of rupee. The exchange rate of Indian rupee is freely determined by the market forces of demand for and supply of US dollars.

Between 1993 and 2013, the foreign exchange market has experienced **six phases of volatility**. There has been a significant increase in volatility in the exchange rate after the global financial crisis of 2008. The Reserve Bank of India has made market interventions with a view to stabilize the exchange rate in each of these phases. However, success in achieving long term stability in the exchange rate will come only if trade and current account deficits are neutralized.

The First Phase (March 1993 to July 1995) - Surge in Capital Flows.

The first phase, starting from March 1993 to July 1995, was marked by a surge in capital inflows because liberalization in the capital account and a move to a market determined exchange rate. As against FDI and Portfolio flows of US\$ 341 million and US\$ 92 million respectively, in 1992-93, the corresponding figures in 1993-94 were US\$ 620 million and US\$ 3490 million.

To maintain the external competitiveness of exports and stability of the rupee, which is a prerequisite for capital inflows, RBI, intervened in the spot market and purchased dollars and, thereafter, conducted Open Market Operations to partly sterilize the expansionary impact on domestic liquidity. **The focus of exchange rate policy in 1993-94 was on preserving the external competitiveness of the rupee at a time when the economy was undergoing a structural transformation coupled with building up of the foreign exchange reserves.**

Because of RBI's intervention, India's foreign exchange reserves increased from US\$ 6.4 billion at the end of March 1993 to US\$ 20.8 billion as at the end of March 1995, representing over 7 months of import cover. There was a prolonged period of stability in the rupee-dollar exchange rate from March 1993 to July 1995 (the USD/Rupee rate remained range bound within Rs.31.37 and Rs 31.65 per US dollar), which was followed by a period of volatility or reversal of the gains made by the rupee.

The Second Phase (August 1995 to March 1996) - Impact of Mexican Crisis.

The period from August 1995 to March 1996 has been divided into two phases.

a) August-December 1995: Contagion of Mexican Crisis.

The second phase starting from August 1995 to March 1996 was marked by intense volatility in the foreign exchange market. This was due to the spread of the Mexican contagion in 1994, which resulted in a sharp devaluation of the Mexican peso in December 1994. The exchange rate of rupee, which stood at 31.40 per US dollar at end-July 1995 depreciated to 33.96 by end-September 1995 and further to 36.48 by end-January 1996. The annual average WPI inflation rate (base 1993-94=100) was quite high at 12.6 per cent during 1994-95, which contributed significantly towards the overvaluation of the rupee in real terms, though in nominal terms the rupee had remained mostly range bound for a substantial period before the volatility episode.

As the rupee was overvalued, the RBI allowed the rupee to depreciate but intervened in the market to ensure that the market corrections were calibrated and orderly. The RBI intervened in the second fortnight of October 1995 to the tune of US\$ 912.5 million. Some of the major administrative/monetary measures taken by the RBI in October/November 1995, amongst other things, were as follows:

□

1. Imposition of interest surcharge on import finance with effect from October 1995.
2. Tightening of concessions in export credit for longer periods.
3. Easing of CRR requirements on domestic as well as nonresident deposits from 15.0 per cent to 14.5 per cent in November 1995.
4. Foreign currency denominated deposits like FCNR(B) and NR(NR)RD were exempted from CRR requirements, and
5. Interest rates on NRE deposits were increased.

The decisive and timely policy actions brought stability to the market and the rupee resumed trading within the range of Rs.34.28 – Rs. 35.79 per US dollar in the spot segment during the period, October 1995 to December 1995.

b) January-March 1996: Renewed Volatility on Weak Sentiments.

The rupee sharply depreciated towards the end of January 1996 and in the first week of February 1996, when the rupee touched a low of Rs.37.95 in the spot market while the three-month forward premium rose to around 20 per cent. The depreciation was triggered by weak market sentiment coupled with demand-supply mismatch resulting from rising imports on the back of acceleration in economic activities and slowdown in capital flows to EMEs on a reassessment of the credit risks involved in the wake of the Mexican crisis.

Several administrative measures were initiated on February 7, 1996 to encourage faster realization of export proceeds and to prevent an acceleration of import payments, *i.e.*, to reduce the lags and leads. These measures enabled the rupee to stage a strong recovery in March-April 1996 and thereafter up to June 1996, the rupee generally remained range-bound within Rs.34 – Rs.35. Because of substantial capital inflows, foreign exchange assets of the RBI increased from US\$ 17.0 billion at the end of March 1996 to around US\$ 26.4 billion as at the end of August, 1997.

The Third Phase (August 1997 to August 1998) - Impact of East Asian Crisis.

The period from August 1997 to August 1998 has been divided into two phases.

In the first phase spanning from August 1997 to April 1998, because of RBI's actions, stability was restored by March 1998 with rupee experiencing moving in a range-bound manner during March-April 1998. However, renewed bout of volatility surfaced in May 1998 due to increased uncertainties emanating from spread of the crisis.

The monthly average Rs-\$ exchange rate, which was quite stable prior to the onset of the crisis and stood at 35.92 per US dollar in August 1997, depreciated continuously during the crisis period and reached a low of 42.76 per US dollar in August 1998, *i.e.*, a depreciation of 16 per cent during the period. Some of the important measures taken by the RBI (up to November 22, 1997) and subsequently during the period from August 1997 to April 1998 were as follows:

□

1. With a view to reducing arbitrage opportunities between foreign exchange market and the domestic rupee markets, and thereby reducing the demand for dollars, the interest rate on fixed rate 'repos' was raised to 5 per cent from 4.5 per cent.
2. The CRR requirement of scheduled commercial banks was raised by 0.5 percentage point.
3. An interest rate surcharge of 15 per cent on lending rate (excluding interest tax) on bank credit for imports was introduced.

On January 6 and 16, 1998, more measures were taken, which included:

1. Raising CRR for banks from 10 per cent to 10.5 per cent. Raising Bank Rate from 9 per cent to 11 per cent.
2. Raising interest rate on fixed rate repos from 7 per cent to 9 per cent.

Because of these measures, stability returned in the foreign exchange market. The exchange rate of rupee, which had depreciated to Rs. 40.36 per US dollar as on January 16, 1998, appreciated to Rs. 39.50 per dollar on March 31, 1998. The exchange rate moved in a narrow range around Rs.39.50 per US dollar in March-April 1998.

May-August 1998: Renewed Volatility due to Spread of Asian Crisis.

In May 1998, there were again uncertainties in market expectations due to the spread of the South –East Asian crisis to Brazil and Russia, nuclear weapon testing in Pokhran, which resulted in economic sanctions being imposed by the US and certain other industrialized countries, suspension of fresh multilateral lending (except for certain specified sectors), downgrading of

country rating by international rating agencies and reduction in investment by Foreign Institutional Investors (FIIs).

Because of these developments, the foreign exchange market experienced increased pressure during the period May-August 1998. The exchange rate of the rupee, which was Rs 39.74 at the end of April 1998, depreciated to Rs 41.50 by the end of May 1998 and further to around Rs 42.47 by the end of June 1998, and continued to remain at these levels till mid-August 1998 when it crossed Rs 43 mark for a brief period prompting RBI to take certain measures.

Some important measures announced by the RBI during the period were as follows:

1. Export credit denominated in foreign currency was made cheaper and banks were advised to charge a spread of not more than 1.5 per cent above LIBOR as against the earlier norm of not exceeding 2-2.5 per cent over LIBOR.
2. As a measure of abundant precaution and to send a signal to the world regarding the intrinsic strength of the economy, India floated the **Resurgent India Bonds (RIBs)** in August 1998, which was very well received by the Non-Resident Indians(NRIs)/ Persons of Indian Origin (PIOs) and subscribed to the tune of US\$ 4.2 billion.

Because of the measures announced by the RBI in August 1998, the rupee, which crossed Rs 43 mark for a brief period in August 1998, climbed back to Rs 42.50 level by end-August 1998. The rupee remained range bound after that and hovered around 42.50 per US dollar up to March 1999 but depreciated a bit and crossed the Rs. 43 per US dollar mark in the subsequent months.

The Fourth Phase - The Pre-Crisis Phase (September 1998 till August 2008)

In the fourth phase, starting from September 1998 onwards (i.e., till the advent of global financial crisis in 2008), the foreign exchange markets generally witnessed stable conditions with brief phases of volatility. The periods of volatility were managed mainly by intervention in the spot and swap markets, floatation of the India Millennium Deposit (IMD) in September/October 2000, which helped in mobilizing US\$ 5.5 billion, and appropriate monetary /administrative measures. Due to continuous excess supply of dollars in the period from April 2002 to May 2008 and intervention by RBI to maintain the stability and external competitiveness of the rupee, the foreign currency assets of the RBI rose from US\$ 51.0 billion as at end-March 2002 to US\$ 305 billion as at end-May 2008.

The Fifth Phase - The Global Financial Crisis (2008-09 to 2011-12).

Volatility in 2008-09: Collapse of Lehman Brothers

Prior to the advent of global financial crisis in 2008, external sector developments in India were marked by strong capital flows, which resulted in the exchange rate of the Indian rupee witnessing appreciating trend up to 2007-08. The robust macro-economic environment with GDP expanding at over 9 per cent during 2006-07 and 2007-08, CAD standing at 1.3 per cent of GDP in 2007-08 (1.0 per cent in 2006-07) and WPI inflation standing at a comfortable 4.7 per cent during 2007-08 also facilitated strong capital inflows. However, there was a sudden change in the external environment following the Lehman Brothers' failure in mid-September 2008. The

global financial crisis led to reversal of capital flows, particularly FII flows, ECBs and trade credit. Large withdrawals of funds from the equity markets by the FIIs, reflecting the credit squeeze and global deleveraging, resulted in large capital outflows during September-October 2008, with concomitant pressures in the foreign exchange market across the globe, including India.

After Lehman's bankruptcy, the rupee depreciated sharply from around Rs. 48 levels, breaching the level of Rs.50 per US dollar on October 27, 2008. The Reserve Bank scaled up its intervention operations during the month of October 2008 (record net sales of US\$ 18.7 billion during the month). Despite significant easing of crude oil prices and inflationary pressures in the second half of the year, declining exports and continued capital outflows led by global deleveraging process and the sustained strength of the US dollar against other major currencies continued to exert downward pressure on the rupee. With the spot exchange rates moving in a wide range, the volatility of the exchange rates increased during this period.

The Reserve Bank took several measures to control volatility, which included:



1. Announcement in mid-September 2008 by the Reserve Bank about its intentions to continue selling foreign exchange (US dollar) through agent banks to augment supply in the domestic foreign exchange market or intervene directly to meet any demand-supply gaps.
2. A rupee-dollar swap facility for Indian banks was introduced with effect from November 7, 2008 to give the Indian banks comfort in managing their short-term foreign funding requirements. For funding the swaps, banks were also allowed to borrow under the LAF for the corresponding tenor at the prevailing repo rate. The foreign exchange swap facility was discontinued in October 2009.
3. The Reserve Bank also continued with Special Market Operations (SMO) which were instituted in June 2008 to meet the foreign exchange requirements of public sector oil marketing companies (OMCs), considering the then prevailing extraordinary situation in the money and foreign exchange markets; these operations were largely (Rupee) liquidity neutral.

Because of these measures, the rupee, which depreciated sharply by 21.5 per cent from 39.99 as at end-March 2008 to 50.95 at end-March 2009 in the aftermath of the global financial crisis, staged a smart turnaround and appreciated by around 12.9 per cent in 2009-10 to 45.14 per US dollar as at end-March 2010.

Volatility in 2011-12: Deepening of Euro Zone Debt Crisis & Weak Fundamentals

After being largely range bound in the first four months of the financial year 2011-12, rupee depreciated by about 17 per cent during August to mid-December of 2011, reflecting global uncertainties and domestic macro-economic weakness. The S&P's sovereign rating downgrade of the US economy, deepening euro area crisis and lack of credible resolution mechanisms led to enhanced uncertainty and reduced risk appetite in global financial markets for EME assets, which resulted in a flight to US dollar, as it was considered a safe asset *vis-à-vis* the riskier EME assets by investors, notwithstanding the economic problems of the US, as US dollar is considered as the most secure currency in the time of uncertainty and crisis. With US dollar appreciating thus, most currencies, including the Indian rupee came under pressure.

Considering the excessive pressures in the currency markets, the Reserve Bank intervened in the foreign exchange market through dollar sale. It also took several capital account measures to stabilize rupee. that included:

□

1. Deregulation of interest rates on rupee denominated NRI deposits and enhancing the all-in-cost ceiling for ECBs with average maturity of 3-5 years.
2. Ceilings for FIIs' investment in government securities and corporate bonds were raised by US\$ 5 billion each to US\$ 15 billion and US\$ 45 billion, respectively.

Thus, the rupee appreciated by 11 per cent from 54.24 per US dollar on December 15, 2011 to 48.68 by February 6, 2012, before weakening again. The renewed pressure on rupee was mainly due to widening trade deficit, drying up of capital flows, particularly FII flows and apprehension about the exit of Greece from the euro.

The Sixth Phase - Volatility Post Chairman Bernanke's Testimony on May 22, 2013

In the aftermath of the global financial crisis and the Euro zone debt crisis, EMEs have faced enhanced uncertainty. Capital flows to EMEs have become extremely volatile with excessive capital inflows to EMEs in search of better yields, resulting from massive quantitative easing (QE) undertaken by the advanced economies, followed by sudden stops and reversals as witnessed in the post May 22, 2013 period on fears of tapering of the QE program. As a result of substantial slowdown in capital inflows, rupee depreciated sharply by around 19.4 per cent against the US dollar between May 22, 2013 when it stood at 55.4 per US dollar and August 28, 2013 when it touched historic low of 68.85 per US dollar due to sharp reversals in capital inflows, unsustainable level of CAD (4.8 % of GDP in 2012-13) deceleration in GDP growth rate (4.5 per cent in 2012-13 and 4.4 per cent in Q1 of 2013-14), high inflation (WPI inflation of 7.4 per cent in 2012-13), large fiscal deficit (4.9 per cent of GDP in 2012-13), etc. Possibility of a quantitative hardening by the US Fed triggered large selloffs by the FIIs in most EMEs, including India, leading to sharp depreciation of EME currencies, including the Indian rupee. The hardening of long-term bond yields in the US and other advanced economies increased their attractiveness prompting foreign investors to pull funds out of riskier emerging markets, which received large capital inflows in search of better yield, as a recovery in the US made the EME fixed income assets less attractive *vis-a-vis* the US, especially in the absence of large quantities of cheap money to invest in the event of QE tapering. Many of the EMEs, including India, resorted to foreign exchange market intervention coupled with other policy measures, such as, hike in interest rates, import compression of non-essential items, incentives on capital inflows, removal of bottlenecks to inflows, *etc.*, to stabilize their currencies, which yielded mixed results.

Measures taken by the RBI to contain volatility

The Reserve Bank announced several monetary policy measures on July 15, 2013. The measures, though intended to stem the volatility in the foreign exchange market, primarily operated through their effect on liquidity in the banking system by making it relatively scarce, thereby reducing demand for foreign currency. The measures included:

□

1. Recalibration in MSF rate with immediate effect to 300 basis points above the repo rate, i.e., the MSF rate was increased to 10.25 per cent from the earlier 8.25 per cent, limiting overall allocation of funds under LAF to 1.0 per cent of NDTL of the banking system reckoned at Rs. 75,000 crore with effect from July 17, 2013 and
2. Announcement to conduct open market sales of government securities of Rs. 12,000 crore on July 18, 2013.

The various measures taken by the RBI, both monetary as well as administrative, lent some stability to the rupee with the rupee exhibiting greater two way movements and stabilizing around the level of 62 - 63 per US dollar in the second half of September 2013 and around 61-62 level during October 2013. The stability of the rupee in the medium-term will depend on both external as well as internal developments. The initial set of monetary tightening measures taken on July 15, 2013 led to some strengthening of the rupee *vis-à-vis* the US dollar.

Positive domestic factors, such as, significant narrowing of trade deficit in August 2013, aided to some extent by the sharp depreciation of the rupee against the US dollar, and fall in imports, especially gold imports, turnaround in industrial production for July 2013, improvement in CPI inflation rate, *etc.*, coupled with positive external developments like deferment of QE tapering by the US Fed on September 18, 2013, as a result of which the rupee made a smart turnaround and appreciated by 11.4 per cent to 61.81 per US dollar on September 27, 2013 from its historic low of 68.85 per US dollar on August 28, 2013, indicating significant improvement in market sentiments.

The rupee has moved in the range of 59.65 and 63.65 per US dollar during the period from mid-September 2013 to April 2, 2014. Despite the announcement on December 18, 2013 of commencement of tapering by the US Fed starting from January 2014 and the subsequent announcements about the increase in its pace, the rupee has generally remained stable, which indicates that the markets have shrugged off QE tapering fears. The rupee has remained relatively stable as compared to other major EME currencies like Brazilian real, Turkish lira South African rand, Indonesia rupiah and Russian Rouble. Recent economic developments, such as, continued FII inflows to the domestic equity markets and resumption of FII flows to debt market as well, especially since December 2013 coupled with substantial reduction in gold imports and increase in exports leading to significant reduction in current account deficit to 0.9 per cent of GDP in Q3 of 2013-14 have buoyed the market sentiment and contributed to the stability of the rupee in the recent months. As per RBI's estimates, CAD narrowed to 1.7 per cent of GDP in 2013-14 from 4.7 per cent in 2012-13. The foreign exchange swap facilities extended by the Reserve Bank along with enhancement in banks' overseas borrowing limit, which led to foreign exchange inflows in excess of US\$ 34 billion, have bolstered foreign exchange reserves and aided the stability of the rupee. Thus, a host of factors have led to the stability of the rupee in the recent months.

The measures taken by the RBI, aided undoubtedly by both external as well as internal positive developments, have had a stabilizing impact on the foreign exchange market and have been successful in reversing the unidirectional expectations of rupee's depreciation.

Questions.

1. Explain the determination of equilibrium exchange rate.
2. Critically examine the Purchasing Power Parity Theory.
3. Explain the role of Central Banks in the Foreign Exchange Market.
4. Explain the phases of RBI's Intervention in the Foreign Exchange Market since 1991.

SYLLABUS & QUESTION PAPER PATTERN

T.Y.B.Com.: Business Economics - Paper VI		
SEMESTER- VI		
Module I -International Trade	Theories of International Trade: Comparative Cost Theory, Heckscher Ohlin Theory, Terms of Trade: Meaning & Types – Gains from Trade (with Offer Curves)	15 L
Module II -Balance of Payments and WTO	Concept & Structure of BOP, Causes of Disequilibrium, Measures to Correct Disequilibrium in BOP- India's BOP Position since 1991- WTO Agreements regarding TRIPS, TRIMS and GATS	10 L
Module III -Foreign Exchange Market	Concept of Foreign Exchange Market: Functions and Dealers - Exchange Rate Systems - Spot and Forward Exchange Rate - Hedging, Arbitrage and Speculation.	10 L
Module IV -Exchange Rate Management	Exchange Rate Determination -Purchasing Power Parity Theory - Role of Central Banks in Foreign Exchange Market -RBI's Intervention in Foreign Exchange Rate Management Since 1991 (stages)	10 L

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4. Dominic Salvatore – “International Economics”, 8th Edition, 2009, John Wiley & Sons

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6. Jhingan M. L. – “International Economics” 6th Edition, 2007, Vrinda Publication
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PAPER PATTERN
T.Y.B.COM.: Business Economics - Paper V & VI
Internal and External Examination for Semesters V and VI

Internal Examination

The Internal Examination will be of 25 marks and is split into:

1. Test Paper of 20 marks consisting of questions of objective types.
2. 5 marks for responsible behavior and active class participation

External Examination

Question Paper Pattern for Semester End Examination.

Duration: 2 hours and 30 minutes.

Marks - 75

There will be **five** questions in all. All the questions are **COMPULSORY** and will have internal choice. Attempt any two sub-questions from question numbers one to four.

Q1. Module I (Total marks 15)
 Three questions: A BC.

Q2. Module II (Total marks 15)
 Three questions: A BC.

Q3. Module III (Total marks 15)
 Three questions: A BC.

Q4. Module IV (Total marks 15)
 Three questions: A BC.

Q5. Modules I to IV (Total marks 15)

- a. True or false with reasons. Attempt any Four out of Eight: Two from each module. (2 marks each)
- b. Choose the correct option. Attempt any Seven out of Twelve: Three from each module. (1 marks each).

QUESTION BANK
(Including QP Pattern, distribution of marks & Model QPs)

CLASS: TYBCOM. YEAR: 2014-15.

SUBJECT: BUSINESS ECONOMICS-III – SEMESTERS VI.

SEMESTER - VI

Module I - International Trade.

3. Explain the Comparative Cost Advantage theory of International Trade.
4. Explain the modern theory of International Trade.
5. Explain the meaning and types of terms of trade.
6. Explain Viner's concepts of terms of trade.
7. Explain the gains from trade.
8. Explain the offer curve approach to terms of trade.

Module II – Balance of Payments and WTO.

1. Explain the structure of Balance of Payments of a country.
2. The balance of payments always balances. Explain.
3. Describe the causes of disequilibrium in the balance of payments.
4. Explain the measures to correct disequilibrium in the balance of payments.
5. Write a note on India's Balance of Payment position since 1991.
6. Explain the impact of WTO on India regarding TRIPs, TRIMs and GATS.

Module III & IV – Foreign Exchange Market and Exchange Rate Management.

1. Explain the meaning and functions of foreign exchange market?
2. Explain how exchange rates are determined?
3. Explain the purchasing power parity theory of exchange rate determination.
4. Explain the segments of the Foreign Exchange market?
5. Explain the concepts of arbitrage, hedging and speculation.
6. Write a note on Foreign Exchange Dealers.
7. Explain the role of Reserve Bank of India in exchange rate management since 1990-91.

CLASS: TYBCOM.

YEAR: 2014-15.

SUBJECT: BUSINESS ECONOMICS-III – SEMESTER -VI.

Important Note: This question bank consists of all the questions framed by the Board of Studies, Business Economics, Paper-3, University of Mumbai and questions framed by me.

External Examination: Question Paper Pattern for Semester VI.

- i) There will be 5 questions. All the questions are compulsory having internal choice.
- ii) All questions are for 15 marks each (Total Marks: 75).
- iii) Question No.1 is based on **module I**. There will be three questions: A, B, C. **Attempt any TWO** – (Total marks 15)
- iv) Question No.2 is based on **module II**. There will be three questions: A, B, C. **Attempt any TWO** – (Total marks 15)
- v) Question No.3 is based on **module III**. There will be three questions: A, B, C. **Attempt any TWO** – (Total marks 15).
- vi) Question No.4 is based on **module IV**. There will be three questions: A, B, C. **Attempt any TWO** – (Total marks 15).
- vii) Question No.4 is an **objective types question** including:

Part A. True or False, with reasons (8 marks): Two statements from each module for 02 marks each. Total 08 statements. Attempt any 04 (4X2=8).

Part B. Multiple Choice Questions (7 marks): Three questions from each module for 01 mark each. Total 12 questions. Attempt any 07 (7X1=7).

GIVE REASONS AND MULTIPLE CHOICE QUESTIONS AND ANSWERS.

Note:

1. Question No.4 is objective type consisting of True/False with reasons and multiple choice questions based on all modules.
2. True or False with reasons will have eight statements, two each on each of the FOUR modules and students are expected to answer any four. Marks allotted are $4 \times 2 = 8$.
3. Multiple choice questions will be 12 with three each on the four modules. Marks allotted are $1 \times 7 = 7$.

SEMESTER - VI

MODULE I – International Trade.

1. The comparative cost advantage theory of international trade was put forward by Adam Smith in his well known work 'The Wealth of Nations' in the year 1776.

Ans. No, the statement is **false**. The theory of comparative cost advantage was put forward by David Ricardo in his well known work 'Principles of Political Economy', 1817.

2. David Ricardo based his theory of comparative cost advantage on his theory of rent.

Ans. No, the statement is **false**. David Ricardo based his theory of comparative cost advantage on labor theory of value.

3. According to David Ricardo, a country will specialize in the production of that product in which it has a greater comparative disadvantage or her comparative disadvantage is the greatest.

Ans. No, the statement is false. According to David Ricardo, a country will specialize in the production of that product in which it has a greater comparative advantage or her comparative disadvantage is the least.

4. David Ricardo put forward a two countries, two products and two factor model of comparative cost advantage.

Ans. No, the statement is **false**. David Ricardo put forward a two countries, two product and one factor model.

5. According to David Ricardo, if there is equal cost difference or that if the domestic cost ratio is same in two countries, trade will take place between them.

Ans. No, the statement is false. According to David Ricardo, if there is equal cost difference or that if the domestic cost ratio is same in two countries, trade will not take place between them.

6. The modern theory of international trade, known as the Smith and Ricardo Approach to International Trade is also known as the General Equilibrium theory.

Ans. No, the statement is **false**. The modern theory of international trade, known as the Heckscher and Ohlin Approach to International Trade is also known as the General Equilibrium theory.

7. The modern theory of international trade is based on factor endowments.

Ans. Yes, the statement is **true**. Accordingly, the country which is endowed with abundant capital will produce capital intensive goods and one that is endowed with labor will produce labor intensive goods.

8. In the absence of trade, prices of different products in different countries will be the same due to different factor endowments.

Ans. The statement is **false**. In the absence of trade, prices of different products in different countries will **not** be the same due to different factor endowments.

9. The gains from specialization and international trade are shared between countries on the basis of trade.

Ans. The statement is **false**. The gains from specialization and international trade are shared between countries on the basis of terms of trade.

10. A rise in the price of imported goods with export price remaining constant will lead to a fall in terms of trade for the trading country.

Ans. The statement is **true** because the country will have to export a larger quantity of exports in order to import the same quantity.

11. A rise in the price of exported goods with import price remaining constant will lead to a rise in terms of trade for the trading country.

Ans. The statement is **true** because the country will have to export a smaller quantity of exports in order to import the same quantity of goods.

12. A rise in the terms of trade index is known as a favorable change in a country's terms of trade.

Ans. The statement is **true** because the terms of trade index will rise only if the relative export prices are more than the import prices.

13. If the export price index goes up from 100 to 140 and the import price index goes up from 100 to 120, the terms of trade index will rise from 100 to 120.

Ans. The statement is **false**. The terms of trade index will rise from 100 to 116.

14. The ratio of price of exports (P_x) to price of imports (P_m) is known as GBTT.

Ans. The statement is **false**. The ratio of price of exports to price of imports is known as NBTT.

15. The ratio of quantity of exports (Q_x) to quantity of imports (Q_m) is known as NBTT.

Ans. The statement is **false**. The ratio of quantity of exports and imports is known as GBTT.

16. The Income Terms of Trade is measured by multiplying the volume of exports with the GBTT.

17. **Ans.** The statement is false. The Income Terms of Trade is measured by multiplying the volume of exports with the NBTT.

18. The offer curve expresses demand for one commodity (exports) in terms of supply of another commodity (imports) at various prices.

Ans. The statement is **false**. The offer curve expresses demand for one commodity (imports) in terms of supply of another commodity (exports) at various prices.

19. Gains from trade are possible when the cost ratios of the trading countries are different.

Ans. Yes, the statement is **true**. Cost differences in trading countries lead to international division of labor and thereby specialization. Larger the cost differences, larger will be the total gains.

20. International trade brings in many dynamic gains.

Ans. Yes, the statement is **true**. International trade brings in many dynamic gains in terms of technological advancement, innovation, new tastes, positive cultural changes etc.

Module II – Balance of Payments and World Trade Organization.

21. Balance of trade always balances.

Ans. No, the statement is **false**. A country may have surplus or deficit on the balance of trade account.

22. Short term lending is listed on the debit side of the balance of payments.

Ans. Yes, the statement is **true**. Debit side of the balance of payments shows the use of foreign exchange acquired by country in a particular period.

23. Items that give rise to receipts of foreign currency are listed on the debit side of the balance of payments.

Ans. No, the statement is **false**. Items that give rise to receipts of foreign currency are listed on the credit side as they show the sources from which the country has acquired the foreign exchange.

24. The purpose of WTO is to remove restrictions in international trade.

Ans. Yes, the statement is **true**. The WTO came into existence to establish a level playing field in international trade.

25. India's receipts on invisible accounts have played an important role on balance of payments front in recent years.

Ans. Yes, the statement is **true**. Net invisible receipts have been positive and have contributed in covering the deficits on trade account.

26. Cyclical transmission causes disequilibrium in balance of payments.

Ans. Yes, the statement is **true**. Business cycles affect international trade. Changes in demand for imports and exports on account of business cycle will affect the participating countries.

27. Depreciation of a currency makes the imports cheaper.

Ans. No, the statement is **false**. Depreciation will make imports dearer.

28. Depreciation of a currency makes the exports cheaper.

Ans. Yes, the statement is **true**. Depreciation makes exports cheaper to the importer because the importing country will have to pay less in foreign exchange.

29. Devaluation means official reduction in the value of the domestic currency.

Ans. Yes, the statement is **true**. Devaluation leads to lowering the exchange value of domestic currency in terms of foreign currency.

30. Most Favored Nation rule under WTO implies that some countries have more advantage in trade.

Ans. No, the statement is **false**. It implies that each member should treat all the other members equally as the most favored trading partner. The MFN clause prevents discrimination between the nationals of trading countries.

31. The agreements of WTO are related to only non-agricultural goods.

Ans. No, the statement is **false**. The agreements of WTO also relate to agricultural goods and services.

Modules III & IV – Foreign Exchange Market and Foreign Exchange Management.

32. The PPP theory is based on the international purchasing power of any two currencies.

Ans. No, the statement is **false**. The PPP theory is based on internal purchasing power of any two currencies.

33. There is only a single exchange rate in the foreign exchange market.

Ans. No, the statement is **false**. There are a variety of exchange rates according to the credit instrument employed in the transfer function. For example: the spot and the forward exchange rates.

34. Demand for foreign currency varies inversely with the rate of exchange.

Ans. Yes, the statement is **true**. Demand for foreign currency arises from import payments. Increase in exchange rate implies depreciation which leads to decrease in import and demand for foreign exchange.

35. Supply of foreign currency varies directly with the rate of exchange.

Ans. Yes, the statement is **true**. Supply of foreign currency arises from export earnings. Increase in exchange rate implies depreciation which leads to rise in exports and supply of foreign exchange.

36. Liberalized Exchange Rate Management System (LERMS) in India was introduced with a dual exchange rate system.

Ans. Yes, the statement is **true**. LERMS was introduced with a dual exchange rate system in 1992-93. The official exchange rate was applicable for 40% of remittances into India. The market exchange rate was applicable for 60% of remittances into India.

37. India has full convertibility of rupee on both the current and capital accounts.

Ans. No, the statement is **false**. India has full convertibility of rupee on current account and partial convertibility on capital account.

38. India's liberalization measures in foreign exchange market include replacement of FERA by FEMA.

Ans. Yes, the statement is **true**. The FERA emphasized on foreign exchange regulations/controls, while FEMA emphasizes on foreign exchange management to promote trade and orderly development of foreign exchange market.

39. The 'Spot exchange market' is a market arrangement where buyers and sellers of foreign exchange come to a mutual agreement to exchange currencies at a given rate on a future date.

Ans. No, the statement is **false**. The 'forward exchange market' is a market arrangement where buyers and sellers of foreign exchange come to a mutual agreement to exchange currencies at a given rate on a future date.

40. The foreign exchange market consists of only the Central bank and authorized dealers.

Ans. No, the statement is **false**. The foreign exchange market consists of the Central bank, authorized dealers, individual and firms, brokers and speculators and arbitrageurs.

41. **Hedging** refers to exposing to risk involved in fluctuating exchange rates.

Ans. No, the statement is **false**. **Hedging** refers to covering risk involved in fluctuating exchange rates.

42. **Arbitrage** refers to the act of buying foreign exchange dear and selling at a lower price.

Ans. No, the statement is **false**. **Arbitrage** refers to the act of buying foreign exchange cheap and selling at a higher price.

Multiple choice questions (MCQs).

Note: There will be three MCQs on each module i.e. 12 MCQs. You will have to attempt any Seven (7 x 1 = 7). **Correct choice is highlighted.**

SEMESTER - VI

Module – I International Trade.

1. The comparative cost advantage theory was put forward by:
 - a) **David Ricardo.**
 - b) JS Mill.
 - c) Adam Smith.
 - d) Hecksher & Ohlin.
2. David Ricardo put forward his theory of comparative cost advantage in his famous work:
 - a) Wealth of Nations.
 - b) **Principles of Political Economy.**
 - c) The General Theory.
 - d) The competitive advantage of nations.
3. The modern theory of international trade is known as:
 - a) **The general equilibrium theory.**
 - b) Bertil Ohlin theory.
 - c) Absolute cost advantage theory.
 - d) None of the above.
4. The ratio of price of exports (Px) to price of imports (Pm) is known as:
 - a) **Net Barter Terms of Trade.**
 - b) Gross Barter Terms of Trade.
 - c) Income Terms of Trade.
 - d) None of the above.
5. The ratio of the total physical quantity of exports and imports is known as:

- a) **GBTT.**
 - b) NBTT.
 - c) ITT.
 - d) None of the above.
6. The Income Terms of Trade is measured by multiplying the volume of exports with:
- a) **NBTT.**
 - b) GBTT.
 - c) Volume of Imports.
 - d) None of the above.
7. The benefits of international trade are:
- a) Maximum output.
 - b) Bigger consumption basket.
 - c) Market expansion.
 - d) **All of the above.**
8. The offer curve approach to terms of trade determination was put forward by:
- a) David Ricardo and Adam Smith.
 - b) Hecksher and Ohlin.
 - c) JS Mill and Marshall.
 - d) **Marshall and Edgeworth.**

MODULE II – Balance of Payments and WTO.

1. Unilateral transfers include _____.
- a) Are unrequited transfers.
 - b) Are one way transfers.
 - c) Include gifts and remittances.
 - d) **All of the above.**
2. The full form of TRIMs is _____.
- a) Trade Related Insurance Means.
 - b) Trade Related Insurance Methods.
 - c) **Trade Related Investment Measures.**
 - d) Trade Reducing Investment.
3. WTO was set up on _____.
- a) 1st January, 1995.
 - b) 1st June, 1985.
 - c) 31st June 1995.
 - d) 1st January, 1990.
4. Autonomous capital inflows _____ other items in the balance of payments.
- a) Depend on.

- b) **Are independent of.**
 - c) Are related to.
 - d) Have impact on.
5. The current account in the balance of payments _____.
- a) Is a total of all the visible items of trade.
 - b) **Includes merchandise trade and services.**
 - c) Always shows a surplus.
 - d) Includes autonomous and accommodating flows.
6. A deficit in India's balance of payments in recent times is due to _____.
- a) A steep rise in the price of crude oil.
 - b) Increase in export related imports.
 - c) Increase in imports on account of globalization.
 - d) **All of the above.**
7. After covering deficits on current account, excess capital account receipts are added to _____.
- a) IMF account.
 - b) Official transfers.
 - c) **Foreign exchange reserves.**
 - d) Bank capital.
8. Bank capital on India's capital account includes _____.
- a) **Foreign currency deposits – NRI deposits.**
 - b) Foreign exchange reserves.
 - c) Local withdrawal from NRI rupee deposits.
 - d) Official transfers.
9. Private transfers on India's current account include _____.
- a) Foreign currency deposits – NRI deposits.
 - b) Foreign exchange reserves.
 - c) **Local withdrawal from NRI rupee deposits.**
 - d) Official transfers.

Modules III & IV - Foreign Exchange Market and Foreign Exchange Management.

10. Hedging refers to _____.
- a) The acceptance of a foreign exchange risk.
 - b) **The covering of a foreign exchange risk.**
 - c) Foreign exchange speculation.
 - d) Foreign exchange arbitrage.
11. Under the flexible exchange rate system, exchange rate is determined by _____.
- a) The monetary authority.
 - b) The Price of Gold.
 - c) **The demand for and supply of foreign exchange.**

- d) None of the above.
12. The functions of foreign exchange market include _____.
- a) Provision of facilities for transfer of funds.
 - b) Provision of short term finance for trade.
 - c) Provision of facilities for trading.
 - d) **All of the above.**
13. _____ helps to equalize the exchange rate in all parts of the foreign exchange market.
- a) Exchange arbitrage.
 - b) Interest arbitrage.
 - c) Hedging.
 - d) **Speculation.**
14. The forward market in foreign exchange is _____ market.
- a) A short run.
 - b) Long run.
 - c) Spot.
 - d) **Both short and long run.**
15. Speculation in foreign exchange market refers to _____.
- a) **Accepting risk to make profits.**
 - b) Careful hedging.
 - c) Interest arbitrage.
 - d) All of the above.
16. Purchase of foreign currency by the monetary authority ____ the appreciation of domestic currency.
- a) De-stabilize.
 - b) Leads to.
 - c) Aggravates.
 - d) **Prevents.**
17. Monetary authority's intervention by way of purchase or sale of foreign currency to prevent fluctuations in foreign exchange rate is called _____.
- a) Bank rate policy.
 - b) Open Market Operations.
 - c) Sterilized intervention.
 - d) **Unsterilized intervention.**
18. The foreign exchange market consists of:
- a) The Central bank,
 - b) Authorized dealers,
 - c) Individuals and firms, brokers, speculators and arbitrageurs.
 - d) All of the above.
19. The PPP exchange rate is based on:
- a) The internal purchasing power of any two currencies.

- b) The external purchasing power of a currency.
- c) Both internal and external purchasing power of a currency.
- d) None of the above.

20. The purchasing power parity theory of exchange rate determination was put forward by Professor Gustav Cassel of:

- a) **Sweden.**
- b) Italy.
- c) United Kingdom.
- d) France.

-X-X-X-

MODEL QUESTION PAPER - 1

CLASS: TYBCOM (SEM – VI)
SUBJECT: BUSINESS ECONOMICS, PAPER – 3

Note: All questions are compulsory and carry equal marks.

Q.1. Answer any one of the following questions. 15

- A. Explain the Comparative Cost Advantage theory of International Trade.
- B. Explain the meaning and types of terms of trade.
- C. Explain the offer curve approach to terms of trade.

Q.2. Answer any two of the following questions: 15

- 7. Write a detailed note on the balance of payments accounts.
- 8. Describe the causes of disequilibrium in the balance of payments.
- 9. Explain the impact of WTO on India with reference to TRIPs, TRIMs and GATS.

Q.3. Answer any two of the following questions: 15

- 5. Explain the meaning and functions of foreign exchange market?
- 6. Explain the concepts of hedging and speculation with reference to the foreign exchange market.
- 7. Write a note on the dealers in the foreign exchange market.

Q.4. Answer any two of the following questions: 15

- 5. Explain the determination of equilibrium exchange rate.
- 6. Critically examine the Purchasing Power Parity Theory.
- 7. Explain the role of Central Banks in the Foreign Exchange Market.

Q.5. A. True or false giving reasons. Attempt any four. 08

1. The comparative cost advantage theory of international trade was put forward by Adam Smith in his well-known work 'The Wealth of Nations' in the year 1776.
2. According to David Ricardo, if there is equal cost difference or that if the domestic cost ratio is same in two countries, trade will take place between them.
3. Balance of trade always balances.
4. The purpose of WTO is to remove restrictions in international trade.
5. The PPP theory is based on the international purchasing power of any two currencies.
6. Demand for foreign currency varies inversely with the rate of exchange.
7. Hedging refers to exposing to risk involved in fluctuating exchange rates.
8. Arbitrage refers to the act of buying foreign exchange dear and selling at a lower price.

B. Multiple Choice Questions. Attempt any seven.

07

1. David Ricardo put forward his theory of comparative cost advantage in his famous work:
 - a) Wealth of Nations.
 - b) Principles of Political Economy.**
 - c) The General Theory.
 - d) The competitive advantage of nations.
2. The modern theory of international trade is known as:
 - a) The general equilibrium theory.**
 - b) Bertil Ohlin theory.
 - c) Absolute cost advantage theory.
 - d) None of the above
3. The ratio of price of exports (P_x) to price of imports (P_m) is known as:
 - a) Net Barter Terms of Trade.**
 - b) Gross Barter Terms of Trade.
 - c) Income Terms of Trade.
 - d) None of the above.
4. Unilateral transfers include _____.
 - a) Are unrequited transfers.
 - b) Are one way transfers.
 - c) Include gifts and remittances.
 - d) All the above.**
5. The full form of TRIMs is _____.
 - a) Trade Related Insurance Means.
 - b) Trade Related Insurance Methods.**

- c) **Trade Related Investment Measures.**
- d) Trade Reducing Investment.

6. Autonomous capital inflows _____ other items in the balance of payments.

- a) Depend on.
- b) **Are independent of.**
- c) Are related to.
- d) Have impact on.

7. Under the flexible exchange rate system, exchange rate is determined by _____.

- a) The monetary authority.
- b) The Price of Gold.
- c) **The demand for and supply of foreign exchange.**
- d) None of the above.

8. The functions of foreign exchange market include _____.

- a) Provision of facilities for transfer of funds.
- b) Provision of short term finance for trade.
- c) Provision of facilities for trading.
- d) **All the above.**

9. _____ helps to equalize the exchange rate in all parts of the foreign exchange market.

- a) Exchange arbitrage.
- b) Interest arbitrage.
- c) Hedging.
- d) **Speculation.**

10. The foreign exchange market consists of:

- a) The Central bank,
- b) Authorized dealers,
- c) Individuals and firms, brokers, speculators and arbitrageurs.
- d) All the above.

11. The PPP exchange rate is based on:

- a) The internal purchasing power of any two currencies.
- b) The external purchasing power of a currency.
- c) Both internal and external purchasing power of a currency.
- d) None of the above.

12. The purchasing power parity theory of exchange rate determination was put forward by Professor Gustav Cassel of:

- a) **Sweden.**
- b) Italy.

- c) United Kingdom.
- d) France.

MODEL QUESTION PAPER - 2

CLASS: TYBCOM (SEM – V)

SUBJECT: BUSINESS ECONOMICS, PAPER – 3

Total Marks: 75

Note: All questions are compulsory and carry equal marks.

Q.1. Answer any two of the following questions. 15

- A. Explain the modern theory of International Trade.
- B. Explain the gains from trade.
- C. Explain the offer curve approach to terms of trade

Q.2. Answer any two of the following questions: 15

- A. Explain the measures to correct disequilibrium in the balance of payments.
- B. Write a note on India's Balance of Payment position since 1991.
- C. Explain the impact of WTO on India regarding TRIPs, TRIMs and GATS.

Q.3. Answer any two of the following questions: 15

- A. Explain the meaning and functions of foreign exchange market?
- B. Explain how exchange rates are determined?
- C. Explain the purchasing power parity theory of exchange rate determination.

Q.4. Answer any two of the following questions: 15

- 1. Explain the segments of the Foreign Exchange market?
- 2. Explain the concepts of arbitrage, hedging and speculation.
- 3. Explain the role of Reserve Bank of India in exchange rate management since 1990-91.

Q.5.

A. True or false giving reasons. Attempt any four.

08

1. Gains from trade are possible when the cost ratios of the trading countries are different.
2. International trade brings in many dynamic gains.
3. Cyclical transmission causes disequilibrium in balance of payments.
4. Depreciation of a currency makes the imports cheaper.
5. There is only a single exchange rate in the foreign exchange market.
6. Demand for foreign currency varies inversely with the rate of exchange.
7. India has full convertibility of rupee on both the current and capital accounts.
8. India's liberalization measures in foreign exchange market include replacement of FERA by FEMA.

B. Multiple Choice Questions. Attempt any seven.

07

1. The Income Terms of Trade is measured by multiplying the volume of exports with:
 - a) **NBTT.**
 - b) GBTT.
 - c) Volume of Imports.
 - d) None of the above.
2. The benefits of international trade are:
 - a) Maximum output.
 - b) Bigger consumption basket.
 - c) Market expansion.
 - d) **All the above.**
3. The offer curve approach to terms of trade determination was put forward by:
 - a) David Ricardo and Adam Smith.
 - b) Hecksher and Ohlin.
 - c) JS Mill and Marshall.
 - d) **Marshall and Edgeworth.**
4. The current account in the balance of payments _____.
 - a) Is a total of all the visible items of trade.
 - b) **Includes merchandise trade and services.**
 - c) Always shows a surplus.
 - d) Includes autonomous and accommodating flows.
5. A deficit in India's balance of payments in recent times is due to _____.
 - a) A steep rise in the price of crude oil.
 - b) Increase in export related imports.
 - c) Increase in imports because of globalization.
 - d) **All the above.**

6. After covering deficits on current account, excess capital account receipts are added to _____.
- a) IMF account.
 - b) Official transfers.
 - c) **Foreign exchange reserves.**
 - d) Bank capital.
7. The forward market in foreign exchange is _____ market.
- a) Short run.
 - b) Long run.
 - c) Spot.
 - d) **Both short and long run.**
8. Speculation in foreign exchange market refers to _____.
- a) **Accepting risk to make profits.**
 - b) Careful hedging.
 - c) Interest arbitrage.
 - d) All the above.
9. Purchase of foreign currency by the monetary authority ____ the appreciation of domestic currency.
- a) De-stabilize.
 - b) Leads to.
 - c) Aggravates.
 - d) **Prevents.**
10. Monetary authority's intervention by way of purchase or sale of foreign currency to prevent fluctuations in foreign exchange rate is called _____.
- a) Bank rate policy.
 - b) Open Market Operations.
 - c) Sterilized intervention.
 - d) **Unsterilized intervention.**
11. The foreign exchange market consists of:
- a) The Central bank,
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 - c) Individuals and firms, brokers, speculators and arbitrageurs.
 - d) All the above.

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- c) United Kingdom.
- d) France.

-X-X-X-