

INTERNATIONAL ECONOMICS

STUDY MATERIAL

VI SEMESTER

B.A. ECONOMICS

CORE COURSE

(2011 ADMISSION)



UNIVERSITY OF CALICUT

SCHOOL OF DISTANCE EDUCATION

THENJIPALAM, CALICUT UNIVERSITY P.O., MALAPPURAM, KERALA - 693 635

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CORE COURSE:

INTERNATIONAL ECONOMICS

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Semester VI International Economics EC6 B13

a. Introduction:

International economics deals with the economic relations – among nations - both trade and financial. A good understanding of international economics is necessary of student of Economics and those who wish to work in these areas or governmental organizations.

b. Objectives:

The basic aim of this introductory course on international economics is to present before the students the questions, and answers, related to international economic relations.

c. Learning Outcome:

The students are expected to acquire skill that will help them to take rational decisions in Issues related international economics.

d. Syllabus

Module 1: Introduction to International Economics

Importance of International Trade - Internal Trade and International Trade

Module 2: Theories of International Trade

Classical Theory: Absolute and Comparative cost Advantage theories, - .Heckscher – Ohlin Theory and Leontief Paradox.

Module 3: Theory of Commercial Policy:

Arguments for and against Free Trade - Arguments for and Against Protection - Methods of Trade Restriction: Tariff – Non-Tariff trade barriers – Dumping, export subsidy and Countervailing duties. (Concept only) - Economic Integration EU, NAFTA, ASEAN, SAARC, WTO.

Module 4: Foreign Exchange:

Defining foreign exchange and exchange rate - Components of foreign exchange reserve. - Different systems of exchange rate determination: gold standard (Mint Parity), PPP, Floating exchange rate, Fixed and Flexible Exchange rate. (Concepts only) - Devaluation, revaluation, depreciation and appreciation.

Module 5: Balance of Payments

Defining Balance of Trade and Balance of Payment. - Equilibrium and disequilibrium in BOP - Measures to correct BOP disequilibrium. - BOP in India.

Reference:

1. Salvatore, Dominick, 'International Economics', Wiley India New Delhi.
2. C.P. Kindle Berger 'International Economics'
3. Bo Soderstein and Geoffrey Reed 'International Economics' Macmilon
4. Francis Cherumilam - 'International Economics'
5. Mannur, H.G. 'International Economics'
6. Errol D'Souza, 'Macro Economics', Pearson Education 2008 (For BOP in India)
7. RBI bulletin, various issues.

MODULE I

INTRODUCTION TO INTERNATIONAL ECONOMICS

International Economics is a specialized branch of Economics focusing on the external trading relations of nations. Generally external trade involves the exchange of goods and services among nations crossing the national territories. Trade not only strengthens the economic interdependence among nations but promotes consumer welfare also by providing a variety of commodities. Since it involves several countries a different set of rules and regulations are necessary for the smooth functioning of the system. This is why international economics is treated as a separate branch of study.

Broadly the subject matter in International Economics can be categorized into five broad groups.

1. International Trade Theory

It concentrates on the theoretical aspects of trade like reasons of trade, gains of trade etc. Different schools of theories are discussed in this section.

2. International Trade Policy

This area deals with the international rules and regulations regarding the flow of transactions. It includes various trade restrictions like tariffs, quotas, changes in exchange rates etc. The regulatory mechanisms and various international institutions for monitoring it are also come under this section.

3. Balance of Payment

With the progress of trade, nations have to make and receive payments. All these economic transactions of a nation with the rest of the world are systematically recorded in this account. The fluctuations in BOP and the associated policy regulations are also included in this section.

4. Balance of Payment Adjustments or Open Economy Macroeconomics

With the progress of transactions, sometimes either the credit or the debit may outweigh the other side. It will lead to imbalances in BOP. This situation is normally coined BOP disequilibrium which demands correction either automatically or externally imposed by the governments. The external repercussions are also brought into the study.

5. International Organizations

International trade is a complex activity involving multiple countries and currencies. Commodities and capital flow across countries. Hence it requires separate rules and regulations. It should be monitored by international level organizations also. All these aspects are monitored under the head global economic organizations.

TRADE AND DEVELOPMENT

International trade is closely linked to development. Most fast growing economies also have a dynamic trade sector. When a firm or an individual buys a good or a service produced more cheaply abroad, living standards in both countries increase. There are other reasons consumers and firms buy abroad that also make them better off—the product may better fit their needs than similar domestic offerings or it may not be available domestically. In any case, the foreign producer also benefits by making more sales than it could selling solely in its own market and by earning foreign exchange (currency) that can be used by itself or others in the country to purchase foreign-made products. The gains (importance) of trade is generally reflected in the following manner.

Acquisition of Capital Goods Industries: The under-developed countries (UDCs) are enabled by foreign trade to obtain in exchange for their goods capital equipment and heavy engineering machines to foster their countries' economic development. For example, India exports spices, cotton and cotton textiles, marine products, gems and jewellery and in exchange we import heavy machinery, defence equipments, and other capital equipment from the developed countries.

Market Extension The foreign trade can extend the scope of the business to the international market. The domestic market is limited; the foreign trade sector opens new vistas, new marketing channels and new markets. When the markets are extended, the economies of scale are reaped; the efficiency and productivity will increase. Accordingly, the forces of development will set themselves in motion.

Foreign Investment: The foreign trade is also helpful in attracting foreign investment. The foreign investors are attracted towards active trading countries and invest in the form of capital goods and technical expertise. In this way, the assembling plants, the manufacturing plants and the latest technology will come into the country. Foreign Direct Investments and off shoring will stimulate the economic climate of a nation.

National Income: When there is imports and exports of goods and services, the government can earn the revenue in form of tariffs, custom duty, import licence fees, etc.

Employment Opportunities: Moreover, the external sector also opens the employment opportunities for the country-men in the foreign countries. Hundreds of thousands of Indians are working abroad. India is earning billions of dollars through foreign exchange remittances and stands in the second position just behind China. Therefore, such remittances are proved to be a major source of foreign exchange earnings.

MODULE 2

THEORIES OF INTERNATIONAL TRADE

INTRODUCTION

International trade theories postulate different aspects of trading practices like basis for trade (reasons for trade), terms of trade (exchange ratio between products), and the gains from trade. It also helps to predict the size, content and direction of trade flows. Depending on the differences of arguments various economists put forward different models of trade pattern. The three phases of the trade theories are pre classical, classical and modern schools. Mercantilism represents the pre classical version. Adam Smith, David Ricardo and John Stuart Mill are associated with the classical theory. The modern version is linked with two Swedish economists Eli Heckscher and Bertil Ohlin.

MERCANTILISM

The trade theory that states that nations should accumulate financial wealth, usually in the form of gold, by encouraging exports and discouraging imports is called mercantilism. Rather than a full fledged trade theory it was actually an economic policy of wealth accumulation. According to this theory other measures of countries' well being, such as living standards or human development, are irrelevant. They simply focused on the accumulation of gold. Mainly Great Britain, France, the Netherlands, Portugal and Spain used mercantilism during the 1500s to the late 1700s. Mercantilism proposed that a country should try to export more than its imports, in order to receive gold. For this they advocated strict controls on trade in the form of tariffs and quotas. Mercantilist countries practiced the zero-sum game, which meant that world wealth was limited and that countries could increase their share only at the expense of other countries. This protectionist policy decelerated the long term growth.

Features

- Restrictive trade aiming at the acceleration of exports and reduction of imports
- Strict focus on the wealth accumulation than welfare promotion
- No simultaneous gains or sharing of gains among countries are possible. One country can benefit only at the cost of other countries
- Adoption of trade protectionism

Owing to these unrealistic practices it faded in the following era. Later by the publication of “Wealth of Nations” by Adam Smith this doctrine completely lost its relevance. But in recent times it is slowly emerging with slight variations. Neo mercantilism is the modern version of mercantilist practices, through the formation of local trading blocks and promotion of trade with imposition of tariffs and quotas.

LABOUR THEORY OF VALUE

It is the foundation stone of classical trade theories. It states that the value of a commodity is solely depended on the amount of labour hours utilized for its production. It assumes that there are no other factor inputs are used for production. Commodities are exchanged also on this basis of labour content. For example if a jeans is made out of 8 hours of labour and a toy of 4 hours then 2 toys are required to exchange for one jeans. Nowadays it seems to be meaningless but at that time technology was less developed and barter system was prevalent.

THEORY OF ABSOLUTE ADVANTAGE: ADAM SMITH

The Scottish economist Adam Smith developed the trade theory of absolute advantage in 1776 through his legendary book “An Enquiry into the Nature and Causes of Wealth of Nations”. He developed the theory as an attack against the then prevailing mercantilist view of restrictive trade with the slogan ‘free trade’. Smith's argument was that the wealth of nations depends upon the goods and services available to their citizens, rather than the gold reserves held by the nation. Maximizing this availability depends primarily on fuller utilization of resources and then, on the ability

- to obtain goods and services from where they are produced most cheaply (because of “natural” or “acquired” advantages), and
- to pay for them by production of the goods and services produced most cheaply in the country,

Human skill up gradation, division of labour and specialization and the economies of scale are the sources of acquired advantage for cheaper production. Natural advantages may emerge out of natural factors.

As the name indicates this theory proposes that a country should engage in the production and exchange of those commodities where it has an absolute advantage. Such a country produces greater output of a good or service than other countries using the same amount of resources. Absolute advantage is defined as the ability to produce more of a good or service than competitors, using the same amount of resources. Smith stated that tariffs and quotas should not restrict international trade; it should be allowed to flow according to market forces. Contrary to mercantilism Smith argued that a country should concentrate on production of goods in which it holds an absolute advantage. No country would then need to produce all the goods it consumed. The theory of absolute advantage destroys the mercantilist idea that international trade is a zero-sum game. According to the absolute advantage theory, international trade is a positive-sum game, because there are gains for both countries to an exchange.

Assumptions

- There are two countries and two commodities
- One country has absolute advantage in one commodity and the second country has advantage in another commodity
- Technology is assumed to be constant
- Labour is the only factor of production
- labour is homogeneous, that means each unit of labour produces same level of output
- value of a commodity is measured in terms of its labour content
- There is no technological improvement
- Labour is perfectly mobile within the country but perfectly immobile between the countries. It means that workers are free to move between industries within the nation but migration to other countries is impossible.
- A system of barter prevails
- Zero transportation cost

Based on these assumptions the theory can be explained with an example. Suppose there are two countries- India and Cuba producing tea and sugar. By employing a worker for one hour India can produce either 10kilograms of tea or 5 kilograms of sugar. Similarly if a Cuban worker is employed she is capable of producing 10 kilograms of sugar or 5 kilograms of tea.

Table 1: Output per hour (kg)

Country	Sugar	Tea
India	5	10
Cuba	10	5

From the table it is clear that by spending an hour’s labour India is capable of producing twofold of tea than Cuba similarly in the case of sugar Cuba is able to generate double the production in India. In short Cuba has absolute advantage in sugar and India in tea. In this situation by concentrating on the respective absolute advantageous areas both nations can benefit by fully channelizing their resources to absolutely advantageous commodity.

Since there is perfect factor mobility within a country, India can channelize labourers into tea sector and Cuba into sugar industry. If India transfer one labour from sugar to tea sector sugar production may fall by 5 kilograms but can produce 10 more kilograms of tea. By exchanging this one unit effort India is capable of purchasing 10 kilograms of sugar from Cuba. So it is beneficial for India. If India goes for domestic exchange, due to the increased cost it will not benefit India. The same is true for Cuba in the case of sugar.

There is a potential problem with absolute advantage. If there is one country that does not have an absolute advantage in the production of any product, will there still be benefit to trade, and will trade even occur? The answer may be found in the extension of absolute advantage, the theory of comparative advantage.

COMPARATIVE ADVANTAGE: DAVID RICARDO

The most basic concept in the whole of international trade theory is the principle of comparative advantage, first introduced by David Ricardo in 1817. It remains a major influence on much international trade policy and is therefore important in understanding the modern global economy. Comparative advantage is the ability of a firm or individual to produce goods and/or services at a lower opportunity cost than other firms or individuals. A comparative advantage gives a company the ability to sell goods and services at a lower price than its competitors and realize stronger sales margins. David Ricardo stated in his theory of comparative advantage that a country should specialize in producing and exporting products in which it has a comparative advantage and it should import goods in which it has a comparative disadvantage. Out of such specialization, it will accrue greater benefit for all.

Assumptions

- There are two countries and two commodities
- One country has absolute advantage in both commodities and the second country has in another commodity
- Technology is assumed to be constant
- Labour is the only factor of production
- labour is homogeneous, that means each unit of labour produces same level of output
- Technology is assumed to be constant
- value of a commodity is measured in terms of its labour content
- There is no technological improvement
- Labour is perfectly mobile within the country but perfectly immobile between the countries. It means that workers are free to move between industries within the nation but migration to other countries is impossible.
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- Zero transportation cost

Example:

Table 2: Output per hour (kg)

Country	Wheat	Tea
India	10	10
Burma	4	5

In this example Indian labourers are capable of producing both wheat and tea in absolute advantage. Burma is disadvantageous in both cases. But still there is a possibility for trade. Burma has fewer disadvantages in tea than wheat. So it is its comparative advantage. If India concentrates in wheat it is capable of producing more than two fold wheat, but in tea it can produce only two fold than Burma. Although India has an absolute advantage in the production of both tea and wheat, India has a comparative advantage only in the production of wheat. This is because its advantage in wheat is comparatively greater than its advantage in tea. In this situation India can concentrate on wheat and Burma on tea and both can benefit from trade.

In this theory there are several assumptions that limit the real-world application. The assumption that countries are driven only by the maximization of production and consumption and not by issues out of concern for workers or consumers is a mistake.

RECIPROCAL DEMAND THEORY: J S MILL

Comparative advantage explains the pattern of trade. It also furnishes a strong argument for trade gains and tells much about readjustment of production and the basic laws that determine the real rate of exchanges between the exportable and importable goods. But to explain the actual pattern of production, or the exact terms at which one country's products exchange for those of another, we also need detailed knowledge of demand and supply. This was firstly verbalized by John Stuart Mill through the 'reciprocal demand theory' and then put into graphic form by Alfred Marshall and F.Y. Edgeworth using the 'offer curves'.

Mill firstly revealed the mechanism of how to determine the rate of exchange in international market and how to distribute the total gains from trade between the two traders by detailing specific relationship between them. That is the two participants of trade in Ricardian model must establish a specific relationship with each other, *this is the reciprocal demand relationship*. It is this *reciprocal demand* that actually determines the prevailing terms of trade and how much gains obtained by a particular country. The reciprocal demand can be defined as the demand for imports in terms of the export of the country.

In other words John Stuart Mill had resolved the problem of how to exactly reach the rate of exchange in international market. Comparative advantage and law of reciprocal demand by John Stuart Mill constitute the two basic building blocks of the classical theory of international trade. Mill argued, acquisition of imports from abroad is the purpose of trade while exports are just means of payment for imports. In order to import some useful commodities from abroad exports of a country should have a real demand in the other countries. So a country should produce both for itself and for consumers in the other countries. Otherwise its exports could not be sold in international market and consequently the country could not import any commodities at all.

Reciprocal demand and terms of trade

The value, then, in any country, of a foreign commodity, depend upon the quantity of home produce which must be given to the foreign country in exchange for it. In other words, the values of foreign commodities depend upon the terms of international exchange. It is not their cost of production rather the law of supply and demand that determines the terms of international exchanges.

HECKSCHER OHLIN THEORY

In the early 20th century, Swedish economists Eli Heckscher and Bertil Ohlin identified the role of labor and capital, so-called factor endowments, as a determinant of advantage. In 1979 Ohlin was awarded Nobel Prize jointly with James Meade for his work in international trade theory. The Heckscher-Ohlin proposition maintains that countries tend to export goods whose production uses intensively the factor of production that is relatively abundant in the country. Countries well endowed with capital—such as factories and machinery—should export capital-intensive products, while those well endowed with labor should export labor-intensive products. According to Bertil Ohlin, trade arises due to the differences in the relative prices of different goods in different countries. The difference in commodity price is due to the difference in factor prices (i.e. costs). Factor prices differ because endowments (i.e. capital and labour) differ in countries. Hence, trade occurs because different countries have different factor endowments.

The Heckscher Ohlin theorem states that countries which are rich in labour will export labour intensive goods and countries which are rich in capital will export capital intensive goods. Heckscher-Ohlin's theory explains the modern approach to international trade on the basis of following assumptions :-

1. There are two countries involved.
2. Each country has two factors (labour and capital).
3. Each country produce two commodities or goods (labour intensive and capital intensive).
4. There is perfect competition in both commodity and factor markets.
5. All production functions are homogeneous of the first degree i.e. production function is subject to constant returns to scale.
6. Factors are freely mobile within a country but immobile between countries.
7. Two countries differ in factor supply.
8. Each commodity differs in factor intensity.
9. The production function remains the same in different countries for the same commodity. For e.g. If commodity **A** requires more capital in one country then same is the case in other country.
10. There is full employment of resources in both countries and demand are identical in both countries.
11. Trade is free i.e. there are no trade restrictions in the form of tariffs or non-tariff barriers.
12. There are no transportation costs.

Given these assumption, Ohlin's thesis contends that a country export goods which use relatively a greater proportion of its abundant and cheap factor. While same country imports goods whose production requires the intensive use of the nation's relatively scarce and expensive factor.

Understanding The Concept of Factor Abundance

In the two countries, two commodities & two factor model, implies that the capital rich country will export capital intensive commodity and the labour rich country will export labour intensive commodity. But the concept of country being rich in one factor or other is not very clear. Economists quite often define factor abundance in terms of factor prices. Ohlin himself has followed this approach. Alternatively factor abundance can be defined in physical terms. In this case, physical amounts of capital and Labour are to be compared.

Price Criterion for defining Factor Abundance

A country where capital is relatively cheaper and labour is relatively costly is said to be capital rich country. Whereas a country where labour is relatively cheaper and capital is relatively costly is said to be labour rich country.

Explaining Heckscher Ohlin's H-O Theory

Let us take an example of same two countries viz; England and India where England is a capital rich country while India is a labour abundant nation.

In the above diagram XX is the isoquant (equal product curve) for the commodity X produced in England. YY is the isoquant representing commodity Y produced in India. It is very clear that XX is relatively capital intensive while YY is relatively labour intensive. The factor capital is represented on Y-axis while the factor labour is represented on the horizontal X-axis.

PA is the price line or budget line of the country England. The price line PA is tangent to XX at E. The price line PA is also tangent to YY isoquant at K. The point K will help us to find out how much of capital and labour is required to produce one unit of Y in England.

P₁B is the price line of the country India, The price line P₁B is tangent to YY at I. The price line RS which is drawn parallel to P₁B is tangent to XX at M. This will help us to find out how much of capital and labour is required to produce one unit of commodity X in India.

Under the given situations, the country England will choose the combination E. Which means more specialisation on capital goods. It will not choose the combination K because it is more labour intensive and less capital intensive.

Thus according to Ohlin, England will specialise on production of goods X by using the cheap factor capital extensively while India specialises on commodity Y by using the cheap factor labour available in the country.

The Ohlin's theory concludes that :-

1. The basis of internal trade is the difference in commodity prices in the two countries.
2. Differences in the commodity prices are due to cost differences which are the results of differences in factor endowments in two countries.
3. A capital rich country specialises in capital intensive goods & exports them. While a Labour abundant country specialises in labour intensive goods & exports them.

Limitations of Heckscher Ohlin's H-O Theory: Heckscher Ohlin's Theory has been **criticised** on basis of following grounds :-

1. **Unrealistic Assumptions** : Besides the usual assumptions of two countries, two commodities, no transport cost, etc. Ohlin's theory also assumes no qualitative difference in factors of production, identical production function, constant return to scale, etc. All these assumptions makes the theory unrealistic one.
2. **Restrictive** : Ohlin's theory is not free from constrains. His theory includes only two commodities, two countries and two factors. Thus it is a restrictive one.
3. **One-Sided Theory** : According to Ohlin's theory, supply plays a significant role than demand in determining factor prices. But if demand forces are more significant, a capital abundant country will export labour intensive good as the price of capital will be high due to high demand for capital.
4. **Static in Nature** : Like Ricardian Theory the H-O Model is also static in nature. The theory is based on a given state of economy and with a given production function and does not accept any change.
5. **Wijnholds's Criticism** : According to Wijnholds, it is not the factor prices that determine the costs and commodity prices but it is commodity prices that determine the factor prices.
6. **Consumers' Demand ignored** : Ohlin forgot an important fact that commodity prices are also influenced by the consumers' demand.
7. **Haberler's Criticism** : According to Haberler, Ohlin's theory is based on partial equilibrium. It fails to give a complete, comprehensive and general equilibrium analysis.
8. **Leontief Paradox** : American economist Dr. Wassily Leontief tested H-O theory under U.S.A conditions. He found out that U.S.A exports labour intensive goods and imports capital intensive goods, but U.S.A being a capital abundant country must export capital intensive goods and import labour intensive goods than to produce them at home. This situation is called Leontief Paradox which negates H-O Theory.
9. **Other Factors Neglected** : Factor endowment is not the sole factor influencing commodity price and international trade. The H-O Theory neglects other factors like technology, technique of production, natural factors, different qualities of labour, etc., which can also influence the international trade.

There are four major components of the HO model:

1. Factor Price Equalization Theorem,
2. Stolper-Samuelson Theorem,
3. Rybczynski Theorem, and
4. Heckscher-Ohlin Trade Theorem.

Factor Price Equalization Theorem: Among the four main results of the HO theory, FPE is the most fragile theorem. If any of the eight assumptions is violated, it will not hold. However, perhaps this is the single most important finding in trade theory; it shows how trade affects income distribution of the global economy. It states that international trade will bring about equalization in the returns to homogeneous factors across countries.

Stolper-Samuelson Theorem: The theorem intends to show that the change in commodity prices change the distribution of real incomes between capital and labor. It states that the international trade will reduce the income of the scarce factor of production and increase the income of the abundant factor of the country. This is because when trade promotes nations will export commodities which are intensive in its abundant and cheap factor. This will earn more income to that factor. Since imports are on the scarce factor the income will flow to abroad leading to a net decline in its earnings.

Rybczynski Theorem: It states that at constant commodity prices, an increase in the quantity of one factor increases the production of the commodity intensive in this factor and reduces the output of the other commodity which is intensive in the constant factor. For example if labour force increase in a country and it turns to be more profitable to employ them , then naturally the country intensify the production of labour intensive commodities at the cost of capital intensive commodity.

Heckscher-Ohlin Trade Theorem: It maintains a country will produce and export those commodities in which its abundant factor is intensively used and import those commodities in which the relatively scarce factor is immensely used.

LEONTIEF'S PARADOX

In 1953, Wassily Leontief published a study named, "Domestic production and foreign trade: the American capital position re-examined" where he tested the validity of the Heckscher-Ohlin theory. Using data available from the 1947 input-output (I-O) model of the US economy, Leontief calculated the K and L requirements for the production of \$1 million of US exports and \$1 million of US production in import-competing industries. He found that the former required a higher proportion of L than the latter. The study showed that the U.S was more abundant in capital compared to other countries, therefore the U.S would export capital- intensive goods and import labour-intensive goods. Leontief found out that the U.S's export was less capital intensive than import. Hecksher-Ohlin's theory of factor endowments stressed that a country should produce and export goods that require resources (factors) that are abundant in the home country. Leontief tested the Hecksher-Ohlin theory in the U.S. and found that it was not applicable in the U.S.

Possible explanations of the Leontief paradox

1. US demand for K-intensive products outstripped its capacity to provide them domestically. So there was no other alternative than imports.

2. "Factor-intensity reversal" — Leontief had no idea of the input mix for manufacturing in other countries; he measured the K-intensity of US production in import-competing industries, not of US imports. If L is expensive in the US, then US industries facing import competition would have to reduce their use of L, by substituting K. However, this would mean that production functions (i.e., input mix; technology) vary for the same products in different places, which renders the Heckscher-Ohlin theorem nearly useless.

3. Perhaps international trade flows were not rationalized according to comparative advantage in 1947, immediately after the destruction and disruption of World War 2. After all, comparative advantage is a normative concept.
4. The US imported natural-resource commodities whose extraction is K-intensive, but in which other nations have an absolute advantage.

4. "Human-skills theory" — L is a heterogeneous factor, and should be analyzed as separate factors according to skills levels. Perhaps the US is actually skilled- and technical-L rich, and therefore has a comparative advantage in production that requires much skilled or technical L. H-O formulations should be expanded to allow for more than one L factor. [Difficult to test, but can be added to the H-O theorem]. Related to this is the recognition of international differences in factor productivity. US labor is more productive than the labor of most countries (because of skills, work organization, capital/worker, and technology), and is paid more per hour; this helps explain why US labor looms larger as a cost in US exports.

5. Technology itself is a nation-specific factor of production, rather than being a universal attribute of production. Furthermore, technology is a factor that is produced within a given nation (much like a commodity), but is not perfectly mobile or tradable. This kind of thinking has led to "neo-technology theories of trade").

6. The US Government and private companies lent (or otherwise invested) so much capital in particular sectors of particular foreign economies, that these enclaves became, essentially, capital-rich. [Thanks, Mike, for this suggestion. Empirically, it probably doesn't play an important role in Leontief's 1947 data, but it (a) does conceptual damage to the factor-proportions theory because it implies that capital, a factor, is mobile, and (b) it presages the model of the international product life cycle, below].

TERMS OF TRADE:

It is the ratio of export prices to import prices of the country. It is a measure of the exchange of exports and imports or how much a nation can import in terms of its exports. If export prices exceed the import prices it will be favorable to the home country and vice versa. It can be stated as:

$$\text{Terms of Trade} = \text{Export prices} / \text{Import prices} = P_x / P_m$$

Net barter Terms of Trade (N)

This is the ratio of price index of exports to the price index of imports

$$N = P_x / P_m \times 100$$

Gross Barter Terms of Trade (G)

It is the ratio of quantity of imports to quantity of exports

$$G = Q_m / Q_x \times 100$$

Income Terms of Trade (I)

It is the product of net barter terms of trade and the quantity of exports. It is a yardstick of a country's capability to import based on its export earnings.

$$I = P_x / P_m \times Q_x$$

MODULE 3

THEORY OF COMMERCIAL POLICY

“But, in general, the protective system of our day is conservative, while the free trade system is destructive. It breaks up old nationalities and pushes the antagonism of the proletariat and the bourgeoisie to the extreme point. In a word, the free trade system hastens the social revolution. It is in this revolutionary sense alone, gentlemen that I vote in favor of free trade.”

-Karl Marx

FREE TRADE

Free trade may be defined as a policy of a government which does not discriminate against imports or interfere with trade by applying tariffs (to imports) or subsidies (to exports). In other words it is the unrestricted purchase and sale of goods and services between countries without the imposition of constraints such as tariffs, duties and quotas. Free trade enables nations to focus on their core competitive advantages, thereby maximizing economic output and fostering income growth for their citizens. The idea that free trade is welfare enhancing is one of the most fundamental doctrines in modern economics dating back at least to Adam Smith (1776) and David Ricardo (1816). But the policy of free trade has been in controversy all the time because the countries were not taking choice between free trade and autarky (no trade). They always choose one policy from among a spectrum of free trade regimes with varying degrees of liberalization. Here are some arguments which are placed in favour of the free trade regime.

1. The theory of comparative advantage

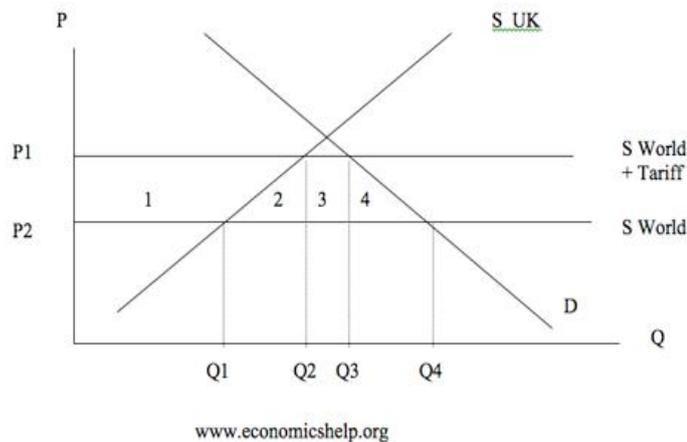
This explains that by specializing and trading goods in which countries have a lower opportunity cost or greater comparative advantage, there can be an increase in economic welfare for all countries. Free trade enables countries to specialize in those goods where they have a comparative advantage. Free trade in lines of comparative advantage is expected to mutually benefit the countries engaged in free trade.

2. Trade as a vent for surplus.

Trade is identified as a vent for surplus output of an economy. The dictum is related to Adam Smith who identified the importance of division of labour. Smith also maintained that the division of labour is limited by the size of the market. Hence division of labour is expected to raise the domestic production. A deficiency in Aggregate demand may reduce the domestic prices. Here trade can act as a vent for surplus production brought forth through technology and division of labour. Free trade is expected to smoothen this process.

3. Reducing Tariff barriers leads to trade creation

Trade creation occurs when consumption switches from high cost producers to low cost producers. Reducing the tariff barriers with an objective to bring about free trade in an economy may help countries for trade creation. The following diagram explains the above idea.



- The removal of tariffs leads to lower prices for consumers and an increase in consumer surplus of areas 1 + 2 + 3 + 4
- Imports will increase from $Q_3 - Q_2$ to $Q_4 - Q_1$
- The government will lose tax revenue of area 3
- Domestic firms producing this good will sell less and lose producer surplus equal to area 1
- However overall there will be an increase in economic welfare of $2+4$ ($1+2+3+4 - (1+3)$)
- The magnitude of this increase depends upon the elasticity of supply and demand. If demand elastic consumers will have a big increase in welfare

4. Economies of Scale.

If countries can specialize in certain goods they can benefit from economies of scale and lower average costs. Economies of scale refer to the capacity of firms to change their output more than proportionately to changes in inputs. This is especially true in industries with high fixed costs or that require high levels of investment. The benefits of economies of scale will ultimately lead to lower prices for consumers. Lowering of trade restrictions enhances this outcome.

5. Increased Competition.

With more trade domestic firms will face more competition from abroad. As a result of this there will be more incentives to cut costs and increase efficiency. It may prevent domestic monopolies from charging too high prices.

6. Trade is an engine of growth.

World trade has increased by an average of 7% since the 1945, causing this to be one of the big contributors to economic growth.

7. Make use of surplus raw materials

Middle Eastern countries such as Qatar are very rich in reserves of oil but without trade there would be not much benefit in having so much oil. Japan on the other hand has very few raw material without trade it would be very poor.

8. Tariffs encourage inefficiency

If an economy protects its domestic industry by increasing tariffs industries may not have any incentives to cut costs. Trade liberalization is often justified in terms of the efficient market outcome and efficient price fixation through a competitive price fixing mechanism.

Arguments against Free Trade

1. **Infant Industry Argument:** Governments are sometimes urged to support the development of infant industries, protecting home industries in their early stages, usually through subsidies or tariffs. Subsidies may be indirect, as in when import duties are imposed or some prohibition against the import of a raw or finished material is imposed. If developing countries have industries that are relatively new, then at the moment these industries would struggle against international competition. However if they invested in the industry then in the future they may be able to gain Comparative Advantage.
2. **The Senile industry argument:** If industries are declining and inefficient they may require large investment to make them efficient again. Protection for these industries would act as an incentive to for firms to invest and reinvent themselves. However protectionism could also be an excuse for protecting inefficient firms
3. **To diversify the economy:** Many developing countries rely on producing primary products in which they currently have a comparative advantage. However relying on agricultural products has several disadvantages. One of the most important determinants of Agricultural Prices is the environmental factors. Hence they can fluctuate with climatic changes. Agricultural commodities have a low income and price elasticity of demand. Therefore with proportionate rise in economic growth will lead to less than proportionate rise in demand. Agricultural commodities have relatively low price elasticity of supply. A proportionate rise in prices will lead to less than proportionate rise in supply of agricultural commodities. This is because of the time lag involved in the production of agricultural goods. This is given by the fact that the production of agricultural goods at time t is determined by the prices prevailing in time ' $t-1$ '.
4. **Raise revenue for the govt:** Import taxes and tariffs can be used to raise money for the government.

5. **Help the Balance of Payments:** Reducing imports can help the current account. However in the long term this is likely to lead to retaliation
6. **Cultural Identity:** This is not really an economic argument but more political and cultural. Many countries wish to protect their countries from what they see as an Americanization or commercialization of their countries
7. **Protection against dumping:** The EU sold a lot of its food surplus from the CAP at very low prices on the world market. This caused problems for world farmers because they saw a big fall in their market prices
8. **Environmental:** It is argued that free trade can harm the environment because Developing countries may use up natural reserves of raw materials to produce exportable commodities. Also countries with strict pollution controls may find consumers import the goods from other countries where legislation is lax and pollution allowed.

Trade Restrictions

Restrictions on international movement of goods and services can be divided into tariff barriers and non tariff barriers. A **tariff** is a tax put on goods imported from abroad. The effect of a tariff is to raise the price of the imported product. It helps domestic producers of similar products to sell them at higher prices. The money received from the tariff is collected by the domestic government. An import tariff is a duty on Import commodities and an export tariff is a duty on export commodities. Tariffs can be *ad valorem* specific or compound. An *ad valorem* tariff is expressed as a fixed percentage of the value of the traded commodity. For example if the US government decides to levy a 10% *ad valorem* duty on the \$100 worth bicycles that the US imports from India, the imported will have to pay \$ 10 for each bicycle that he imports from India. The specific tariff is expressed as a fixed sum per physical unit of the traded commodity. Here if the specific duty is specified as \$5 then the customs officials have to collect \$5 for each bicycle that is imported to us from India irrespective of its price. A compound tariff is the combination of the *ad valorem* and specific tariffs. Finally a compound duty of \$15 on the bicycle imported to US will lead the customs officials to collect \$5 as the specific part of the compound duty and \$10 - that is 10 % of each \$100 worth bicycle - as the *ad valorem* part of the compound duty.

Besides these classifications tariffs can be classified as protective and revenue tariffs. **Protective tariffs** are put in place specifically to make foreign good more expensive to protect domestic industries from competition. **Revenue tariffs** are put in place to raise money for the government. It all depends on the intention of the government that implements the tariff.

Non-Tariff Trade Barriers

Non-tariff barriers to trade (NTBs) are trade barriers that restrict imports but are not in the usual form of a tariff. Some common examples of NTB's are anti-dumping measures and countervailing duties, which, although called non-tariff barriers, have the effect of tariffs once they are enacted. Non-tariff barriers to trade include import quotas, special licenses, unreasonable standards for the quality of goods, bureaucratic delays at customs, export restrictions, limiting the activities of state trading, export subsidies, countervailing duties, technical barriers to trade, sanitary and phyto-sanitary measures, rules of origin, etc.

Their use has risen sharply after the WTO rules led to a very significant reduction in tariff use. Some non-tariff trade barriers are expressly permitted in very limited circumstances, when they are deemed necessary to protect health, safety, sanitation, or natural resources. In other forms, they are criticized as a means to evade free trade rules such as those of the World Trade Organization (WTO), the European Union (EU), or North American Free Trade Agreement (NAFTA) that restrict the use of tariffs.

A **quota** is a quantitative limit on the amount of goods that can be imported. Putting a quota on a good creates a shortage, which causes the price of the good to rise and allows domestic producers to raise their prices and to expand their production. An import quota is a limit on the quantity of a good that can be produced abroad and sold domestically. It is a type of protectionist trade restriction that sets a physical limit on the quantity of a good that can be imported into a country in a given period of time. If a quota is put on a good, less of it is imported. Quotas, like other trade restrictions, are used to benefit the producers of a good in a domestic economy at the expense of all consumers of the good in that economy.

Dumping

Dumping is international price discrimination. Price discrimination is usually practiced by a monopolist, and refers to charging different prices to same commodity for different people. A firm may charge higher price for domestic consumers and a lower price for foreign consumers. This may be considered as a trade barrier.

Two necessary conditions for price discrimination and dumping are:

- (i) The markets should be subdivided and the division should be so effective that the goods sold in one market needs to be resold in another market.
- (ii) The price elasticity demand should be different in each market.

Dumping is of different types. The following are the important types of dumping.

- (i) Persistent dumping
- (ii) Predatory dumping
- (iii) Sporadic dumping

(i) Persistent Dumping

It is a continuous tenancy of a domestic monopolist to maximize total profits by selling the commodity at a higher price in the domestic markets than foreign market.

(ii) Predatory Dumping

It is the 'temporary sale' of a commodity at a lower price (may be low cost) in abroad in order to drive foreign producers out of business.

(iii) Sporadic Dumping

Sporadic Dumping is the occasional sale of a commodity at below cost at a lower price abroad than domestically in order to unload an unforeseen and temporary surplus of the commodity without having to reduce domestic prices.

Trade restrictions to counteract predatory dumping are justified and allowed to protect domestic industries from unfair competition from abroad. These restrictions usually take the form of antidumping duties to offset price differentials or the threat to impose such duties. Through the trade restriction they discourage imports and promote their own products.

Export Subsidies:-

These are direct payments to nation's exporters. Export subsidies are of different types. They include the practice of granting tax relief and subsidized loans to the nation's exporters or potential exporters, providing low interest loan to foreign buyers so as to stimulate the nation exports etc. Export subsidies as such may be regarded as a form of dumping.

All the major industrial nations give low interest loans to foreign buyers of the nation's export to finance the purchases. This is undertaken through agencies such as Export import Bank. These low interest credits are financing about 2% of US exports as compared with Japan's 32%, France's 18% and Germany's 9% indeed. This is the one of the most serious trade complaints that U.S has against many other industrial countries. The amount of subsidies can be measured by the difference between the interest that would have been paid on a commercial loan and what is in fact gained at the subsidize rate. In 1996 U.S provided about 1 billion as such subsidies and Japan, France and Germany two or three times that amount.

Countervailing Duties (CVDs)

C.V.Ds is often imposed on imports to offset export subsidies by foreign Government. Duties that are imposed in order to counter the negative impact of import subsidies to protect domestic producers are called countervailing duties. In cases foreign producers attempt to subsidize the goods being exported by them so that it causes domestic production to suffer because of a shift in domestic demand towards cheaper imported goods, the government makes mandatory the payment of a countervailing duty on the import of such goods to the domestic economy. This raises the price of these goods leading to domestic goods again being equally competitive and attractive. Thus, domestic businesses are cushioned. These duties can be imposed under the specifications given by the WTO (World Trade Organization) after the investigation finds that exporters are engaged in dumping. These are also known as anti-dumping duties.

Countervailing duties (CVD) are meant to level the playing field between domestic producers of a product and foreign producers of the same product who can afford to sell it at a lower price because of the subsidy they receive from their government. If left unchecked, such subsidized imports can have a severe effect on domestic industry, forcing factory closures and causing huge job losses. As export subsidies are considered to be an unfair trade practice, the World Trade Organization (WTO) – which deals with the global rules of trade between nations – has detailed procedures in place to establish the circumstances under which countervailing duties can be imposed by an importing nation.

The WTO's "Agreement on Subsidies and Countervailing Measures," which is contained in the General Agreement on Tariffs and Trade (GATT) 1994, defines when and how export subsidies can be used and regulates the measures that nations can take to offset the effect of such subsidies. These measures include the affected nation using the WTO's dispute settlement procedure to seek withdrawal of the subsidy, or imposing countervailing duties on subsidized imports that are hurting domestic producers.

The WTO only permits countervailing duties to be charged after the importing nation has conducted an in-depth investigation into the subsidized exports. The agreement contains detailed rules for determining whether a product is being subsidized and calculating the amount of such subsidy, criteria for establishing whether these subsidized imports are affecting domestic industry, and rules for the implementation and duration of countervailing duties, which is typically five years.

Economic Integration

A free trade area is a form of economic integration where in all barriers on trade among members are removed, but each nation retains its own barriers on trade with the nonmembers. In a free trade area the group of countries will invoke little or no price control in the form of tariffs or quotas between each other. Free trade areas allow the agreeing nations to focus on their competitive advantage and to freely trade for the goods they lack the experience at making, thus increasing the efficiency and profitability of each country. Eg: European Free Trade Association (EFTA in 1960) North American Free Trade Agreement (NAFTA in 1993) European Union (EU) formed in 1957.

General Agreement on Tariff and Trade (GATT)

GATT an international organization created in 1947. It's Head Quarters in Geneva (Switzerland), for the promotion of Free Trade through multilateral trade negotiations. Originally it was thought that GATT would become part of the International Trade Organization (ITO). GATT was vested on three basic principles.

- i) Non discrimination
- ii) Elimination of NonTariff Trade
- iii) Consultation among nations in solving trade disputes within the GATT frame work.

European Union (EU)

The E.U is also known as European common market. The European Union (EU) is an economic and political union of 28 member states that are located primarily in Europe. It was founded by the Treaty of Rome, signed in March 1957 by West Germany, France, Italy, and Belgium. In the intervening years the community and its successors have grown in size by the accession of new member states and in power by the addition of policy areas to its remit. The Maastricht Treaty established the European Union under its current name in 1993. The latest major amendment to the constitutional basis of the EU, the Treaty of Lisbon, came into force in 2009.

The EU has developed a single market through a standardized system of laws that apply in all member states. Within the Schengen Area (which includes 22 EU and 4 non-EU states) passport controls have been abolished. EU policies aim to ensure the free movement of people, goods, services, and capital, enact legislation in justice and home affairs, and maintain common policies on trade, agriculture, fisheries, and regional development. The euro zone, a monetary union, was established in 1999 and came into full force in 2002. It is currently composed of 18 member states. Through the Common Foreign and Security Policy the EU has developed a role in external relations and defence. Permanent diplomatic missions have been established around the world. The EU is represented at the United Nations, the WTO, the G8, and the G-20. With a combined population of over 500 million inhabitants, or 7.3% of the world population, the EU in 2012 generated a nominal gross domestic product (GDP) of 16.584 trillion US dollars, constituting approximately 23% of global nominal GDP and 20% when measured in terms of purchasing power parity, which is the largest nominal GDP and GDP PPP in the world.

The North American Free Trade Agreement (NAFTA)

NAFTA is an agreement signed by Canada, Mexico, and the United States, creating a trilateral rules-based trade bloc in North America. The agreement came into force on January 1, 1994. The creation resulted in the formation of one of the world's largest free trade zones thereby laying the foundations for strong economic growth and rising prosperity for Canada, the United States, and Mexico. Since then, NAFTA has demonstrated how free trade increases wealth and competitiveness, delivering real benefits to families, farmers, workers, manufacturers, and consumers.

In terms of combined purchasing power parity GDP of its members, as of 2007 the trade bloc is the largest in the world and second largest by nominal GDP comparison. All remaining duties and quantitative restrictions were eliminated, as scheduled, on January 1, 2008. NAFTA now links 450 million people producing \$17 trillion worth of goods and services.

The Association of Southeast Asian Nations, (ASEAN)

The Association of Southeast Asian Nations, or ASEAN, was established on 8 August 1967 in Bangkok, Thailand, with the signing of the ASEAN Declaration (Bangkok Declaration) by the Founding Fathers of ASEAN, namely Indonesia, Malaysia, Philippines, Singapore and

Thailand. Brunei Darussalam then joined on 7 January 1984, Viet Nam on 28 July 1995, Lao PDR and Myanmar on 23 July 1997, and Cambodia on 30 April 1999, making up what is today the ten Member States of ASEAN.

Main objectives of the Association was to accelerate the economic growth, social progress and cultural development in the region through joint endeavors in the spirit of equality and partnership in order to strengthen the foundation for a prosperous and peaceful community of Southeast Asian Nations. The association aims to promote active collaboration and mutual assistance on matters of common interest in the economic, social, cultural, technical, scientific and administrative fields. Also it intends to collaborate more effectively for the greater utilization of their agriculture and industries, the expansion of their trade, including the study of the problems of international commodity trade, the improvement of their transportation and communications facilities and the raising of the living standards of their subjects.

The South Asian Association for Regional Cooperation (SAARC)

The South Asian Association for Regional Cooperation (SAARC) is an economic and geopolitical union of eight member nations that are primarily located in South Asia continent. Its secretariat is headquartered in Kathmandu, Nepal. The idea of regional political and economical cooperation in South Asia was first coined in 1980 and the first summit held in Dhaka on 8 December in 1985 led to its official establishment by the governments of Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka. In the intervening years, its successors have grown in size by the accession of new member states. Afghanistan was the first to have been accessed in the physical enlargement of the SAARC in 2007.

The SAARC policies aim to promote welfare economics, collective self-reliance among the countries of South Asia, and to accelerate socio-cultural development in the region. The SAARC has developed a role in external relations around with world. Permanent diplomatic relations have been established with the EU, the UN (as an observer), and other multilateral entities. On annual scheduled basis, the official meetings of leaders of each nation are held; meetings of foreign secretaries, twice annually. The next summit is expected to be held in Kathmandu in 2013, but the official dates for the summit is yet to be determined.

World Trade Organization (WTO)

Internationally coordinated tariff reduction as a trade policy dates back to the 1930s. In 1930 the United States passed a tariff law known as the Smooth –Hawley Law. Under the act the tariffs rose sharply. US Trade volume fell sharply. It is argued by many economists that the Act is the reason behind the great depression of 1930's. US administration argued that the tariff should be reduced. But the reductions were not possible due to the pressure from the interested groups in Us states. The only possible way is to go for bilateral negotiations. Such bilateral negotiations helped US to reduce their average level of tariffs from 59% in 1932 to 25 percent in the II world war period. Multinational negotiations started immediately after the II world War. It was imagined that an international organisation called the International Trade Organisation (ITO) would be established along with the IMF and the World Bank. But

a group of 23 countries began the trade negotiations to establish the General Agreement on Tariff and Trade (GATT). GATT was an official Agreement and not an organisation. The countries participated in the agreement were known as the contracting parties. GATT maintained a permanent secretariat in Geneva. In 1995 the World Trade Organisation (WTO) was established. The basic logic and the rules remains the same.

The World Trade Organization (WTO) deals with the global rules of trade between nations. Its main function is to ensure that trade flows as smoothly, predictably and freely as possible. The World Trade Organization (WTO) is the only global international organization dealing with the rules of trade between nations. At its heart are the WTO agreements, negotiated and signed by the bulk of the world's trading nations and ratified in their parliaments.

The following are the main methods in which the WTO system works:

More open

Lowering trade barriers is one of the most obvious ways of encouraging trade; these barriers include customs duties (or tariffs) and measure such as import bans or quotas that restrict quantities selectively.

Predictable and transparent

Foreign companies, investors and governments should be confident that trade barriers should not be raised arbitrarily. With stability and predictability, investment is encouraged, jobs are created and consumers can fully enjoy the benefits of competition — choice and lower prices.

More competitive

Discouraging 'unfair' practices, such as export subsidies and dumping products at below cost to gain market share; the issues are complex, and the rules try to establish what is fair or unfair, and how governments can respond, in particular by charging additional import duties calculated to compensate for damage caused by unfair trade.

More beneficial for less developed countries

Giving them more time to adjust, greater flexibility and special privileges; over three-quarters of WTO members are developing countries and countries in transition to market economies. The WTO agreements give them transition periods to adjust to the more unfamiliar and, perhaps, difficult WTO provisions.

Protect the environment

The WTO's agreements permit members to take measures to protect not only the environment but also public health, animal health and plant health. However, these measures must be applied in the same way to both national and foreign businesses. In other words, members must not use environmental protection measures as a means of disguising protectionist policies.

Trade negotiations

The WTO agreements cover goods, services and intellectual property. They spell out the principles of liberalization, and the permitted exceptions. They include individual countries' commitments to lower customs tariffs and other trade barriers, and to open and keep open services

markets. They set procedures for settling disputes. These agreements are not static; they are renegotiated from time to time and new agreements can be added to the package. Many are now being negotiated under the Doha Development Agenda, launched by WTO trade ministers in Doha, Qatar, in November 2001.

Implementation and monitoring

WTO agreements require governments to make their trade policies transparent by notifying the WTO about laws in force and measures adopted. Various WTO councils and committees seek to ensure that these requirements are being followed and that WTO agreements are being properly implemented. All WTO members must undergo periodic scrutiny of their trade policies and practices, each review containing reports by the country concerned and the WTO Secretariat.

Dispute settlement

The WTO's procedure for resolving trade quarrels under the Dispute Settlement Understanding is vital for enforcing the rules and therefore for ensuring that trade flows smoothly. Countries bring disputes to the WTO if they think their rights under the agreements are being infringed. Judgements by specially appointed independent experts are based on interpretations of the agreements and individual countries' commitments.

Building trade capacity

WTO agreements contain special provision for developing countries, including longer time periods to implement agreements and commitments, measures to increase their trading opportunities, and support to help them build their trade capacity, to handle disputes and to implement technical standards. The WTO organizes hundreds of technical cooperation missions to developing countries annually. It also holds numerous courses each year in Geneva for government officials. Aid for Trade aims to help developing countries develop the skills and infrastructure needed to expand their trade.

Outreach

The WTO maintains regular dialogue with non-governmental organizations, parliamentarians, other international organizations, the media and the general public on various aspects of the WTO and the ongoing Doha negotiations, with the aim of enhancing cooperation and increasing awareness of WTO activities.

Trade Rounds.

These methods are used to improve the trade system through different **Trade Rounds**. In each Trade rounds groups of countries get together to negotiate a set of tariff reductions and other measures to liberalize trade. Eight trade rounds have been completed since 1947. The last round was the Uruguay round of trade negotiations in 1994. In 2001 there was the ninth round which is known as the Doha Round. The eighth round of trade negotiations started in the year 1986 at Punta de Este in Uruguay. After Eight long years of negotiations the participants could finally produce a document which is signed at Marrakesh in Morocco.

MODULE 4

FOREIGN EXCHANGE MARKET

Most countries have their own currencies, and when people in different countries do business with each other, an exchange of currencies must take place. Foreign Exchange market is the market for the purchase and sale of currencies. It is a global market which operates in all times (24x7 market). The price prevailing in this market is called foreign exchange rate. An exchange rate is the rate at which one currency can be exchanged for another. In other words, it is the price of foreign currency in terms of the domestic currency. Just like the price of any asset, the exchange rate is the price at which one can buy another currency. Exchange rates are determined in the foreign exchange market. Thus, economists predict that movements in exchange rates should reflect changes in the relative demand for and supply of the two currencies.

Functions

1. Fund Transfer

It convenes the transfer of funds and purchasing power from one nation and currency to another as foreign exchange is demanded to exchange commodities between nations. It is realized through the inflow and outflow of money by exports and imports.

2. Credit for Trade

The flow of goods and services across countries demand sufficient financial support. Through various monetary instruments like external commercial borrowing, Eurobonds, foreign bonds etc. foreign exchange market performs this function effectively.

3. Hedging and Speculation

Exchange rate risk is very fundamental to the foreign exchange market. The market itself offers ways to reduce or avoid it. Hedging means the measures adopted for avoiding risks. But speculation is an open position in the market with an expectation of gains through the fluctuations.

PARTICIPANTS IN THE MARKET

It is an organizational framework within which individuals, firms and banks buy and sell foreign currencies or foreign exchange. This 24x7 hour market is the most liquid market in the world level. It has global outreach and the currencies are traded worldwide. The different monetary centers are connected by a telephone network. Commercial banks, brokers and clients are the major participants of this system. Exporters and importers are the real clients of the market. Now a days speculators also involve in the market with an eye on the profit. Brokers intervene between the banks and clients. The regulators of the market are the banking system consisting of central banks and commercial banks. With the expansion of activities, corporate and non banking financial intermediaries also actively take part in it.

Fixed Exchange Rates

There are two ways the price of a currency can be determined against another. A fixed or pegged, rate is a rate the government (central bank)) sets and maintains as the official exchange rate. A rate will be determined against a major world currency (usually the U.S. dollar, but also other major currencies such as the euro, the yen or a basket of currencies). In order to maintain the local exchange rate, the central bank buys and sells its own currency on the foreign exchange market in return for the currency to which it is pegged.

If, for example, it is determined that the value of a single unit of local currency is equal to US\$50, the central bank will have to ensure that it can supply the market with those dollars. In order to maintain the rate, the central bank must keep a high level of foreign reserves. This is a reserved amount of foreign currency held by the central bank that it can use to release (or absorb) extra funds into (or out of) the market. This ensures an appropriate money supply, appropriate fluctuations in the market (inflation/deflation) and ultimately, the exchange rate.

Floating Exchange Rates

Unlike the fixed rate, a floating exchange rate is determined by the private market through supply and demand. A floating rate is often termed "self-correcting," as any differences in supply and demand will automatically be corrected in the market. A floating exchange rate is constantly changing. In a floating regime, the central bank may also intervene when it is necessary to ensure stability and to avoid inflation but the frequency is comparatively low. In reality, no currency is wholly fixed or floating. In a fixed regime, market pressures can also influence changes in the exchange rate. Sometimes, when a local currency reflects its true value against its pegged currency, a "black market" (which is more reflective of actual supply and demand) may develop. A central bank will often then be forced to revalue or devalue the official rate so that the rate is in line with the unofficial one, thereby halting the activity of the black market.

EXCHANGE RATE REGIMES: HISTORICAL BACKGROUND

Between 1870 and 1914, there was a global fixed exchange rate. Currencies were linked to gold, meaning that the value of a local currency was fixed at a set exchange rate to gold ounces. This was known as the gold standard. This allowed for unrestricted capital mobility as well as global stability in currencies and trade. However, with the start of World War I, the gold standard was abandoned

At the end of World War II, the conference at Bretton Woods, an effort to generate global economic stability and increase global trade, established the basic rules and regulations governing international exchange. As such, an international monetary system, embodied in the (IMF), was established to promote foreign trade and to maintain the monetary stability of countries and therefore, that of the global economy. It was agreed that currencies would once again be fixed, or pegged, but this time to the U.S. dollar, which in turn was pegged to gold at US\$35 per ounce.

What this meant, was that the value of a currency was directly linked with the value of the U.S. dollar. So, if you needed to buy German marc, the value of the marc would be expressed in U.S. dollars, whose value in turn was determined in the value of gold. If a country needed to readjust the value of its currency, it could approach the IMF to adjust the pegged value of its currency. The peg was maintained until 1971, when the U.S. dollar could no longer hold the value of the pegged rate of US\$35 per ounce of gold. From then on, major governments adopted a floating system, and all attempts to move back to a global peg were eventually abandoned in 1985. Since then, no major economies have gone back to a peg, and the use of gold as a peg has been completely abandoned.

Countries with pegs are often associated with having unsophisticated capital markets and weak regulating institutions. The peg is there to help create stability in such an environment. It takes a stronger system as well as a mature market to maintain a float. When a country is forced to devalue its currency, it is also required to proceed with some form of economic reform, like implementing greater transparency, in an effort to strengthen its financial institutions.

Some governments may choose to have a "floating," or "crawling" peg, whereby the government reassesses the value of the peg periodically and then changes the peg rate accordingly. Usually, this causes devaluation, but it is controlled to avoid market panic. This method is often used in the transition from a peg to a floating regime, and it allows the government to "save face" by not being forced to devalue in an uncontrollable crisis.

Advantages of floating exchange rates

Fluctuations in the exchange rate can provide an automatic adjustment for countries with a large balance of payments deficit. If an economy has a large deficit, there is a net outflow of currency from the country. This puts downward pressure on the exchange rate and if depreciation occurs, the relative price of exports in overseas markets falls (making exports more competitive) whilst the relative price of imports in the home markets goes up (making imports appear more expensive). This should help reduce the overall deficit in the balance of trade provided that the price elasticity of demand for exports and the price elasticity of demand for imports are sufficiently high.

A second key advantage of floating exchange rates is that it gives the government / monetary authorities' flexibility in determining interest rates. This is because interest rates do not have to be set to keep the value of the exchange rate within pre-determined bands. For example when the UK came out of the Exchange Rate Mechanism in September 1992, this allowed a sharp cut in interest rates which helped to drag the economy out of a prolonged recession.

The third important merit is that since adjustments are done automatically the cost of adjustment will be very low. It removes all the bottlenecks associated with frequent adjustments by the monetary authorities.

Advantages of Fixed Exchange Rates (disadvantages of floating rates)

Fixed rates provide greater certainty for exporters and importers and under normally circumstances there is less speculative activity - although this depends on whether the dealers in the foreign exchange markets regard a given fixed exchange rate as appropriate and credible. Sterling came under intensive speculative attack in the autumn of 1992 because the markets perceived it to be overvalued and ripe for devaluation.

DEVALUATION AND REVALUATION

Under a fixed exchange rate system, devaluation and revaluation are official changes in the value of a country's currency relative to other currencies. In a fixed exchange rate system, both devaluation and revaluation can be conducted by policymakers, usually motivated by market pressures. Under a fixed exchange rate system, only a decision by a country's government or monetary authority can alter the official value of the currency. Governments do, occasionally, take such measures, often in response to unusual market pressures. **Devaluation**, the deliberate downward adjustment in the official exchange rate, reduces the currency's value; in contrast, a **revaluation** is an upward change in the currency's value. A key effect of devaluation is that it makes the domestic currency cheaper relative to other currencies. There are two implications of a devaluation. First, devaluation makes the country's exports relatively less expensive for foreigners. Second, the devaluation makes foreign products relatively more expensive for domestic consumers, thus discouraging imports. This may help to increase the country's exports and decrease imports, and may therefore help to reduce the current account deficit.

There are other policy issues that might lead a country to change its fixed exchange rate. For example, rather than implementing unpopular fiscal spending policies, a government might try to use devaluation to boost aggregate demand in the economy in an effort to fight unemployment. Revaluation, which makes a currency more expensive, might be undertaken in an effort to reduce a current account surplus, where exports exceed imports, or to attempt to contain inflationary pressures.

Effects of Devaluation

A significant danger is that by increasing the price of imports and stimulating greater demand for domestic products, devaluation can aggravate inflation. If this happens, the government may have to raise interest rates to control inflation, but at the cost of slower economic growth.

Another risk of devaluation is psychological. To the extent that devaluation is viewed as a sign of economic weakness, the creditworthiness of the nation may be jeopardized. Thus, devaluation may dampen investor confidence in the country's economy and hurt the country's ability to secure foreign investment.

Another possible consequence is a round of successive devaluations. For instance, trading partners may become concerned that devaluation might negatively affect their own export industries. Neighboring countries might devalue their own currencies to offset the effects of their trading partner's devaluation. Such "beggar thy neighbor" policies tend to exacerbate economic difficulties by creating instability in broader financial markets.

Under a floating exchange rate system, market forces generate changes in the value of the currency, known as currency depreciation or appreciation. Depreciation is the downward trend whereas appreciation is the upward trend in rate of exchange.

THEORIES OF EXCHANGE RATE

There are two prominent theories which determine exchange rate systematically – gold standard and purchasing power parity theory.

Purchasing-power parity theory

Purchasing power parity is both a theory about exchange rate determination and a tool to make more accurate comparisons of data between countries. It serves as a tool for cross-country comparisons of income and wages, which is used by international organizations like the World Bank in presenting much of their international data. The concept of purchasing power parity is quite old. It is believed to have been propounded by the sixteenth-century scholars of the University of Salamanca of Spain.

It relates the price level in a country to the exchange rate. **Purchasing power parity (PPP)** is a theory of exchange rate determination which compares the average costs of goods and services between countries. The theory states that the exchange rate between one currency and another is in equilibrium when their domestic purchasing powers at that rate of exchange are equivalent. PPP indicates that exchange rate between two countries should equal to the ratio of similar goods and services in both countries. In short, what this means is that a bundle of goods should cost the same in India and Pakistan when we take the exchange rate between them. Purchasing-power parity theory tells us that price differentials between countries are not sustainable in the long run as market forces will equalize prices between countries and change exchange rates in doing so. Since the price for any one good should be equal across markets, the price for any combination or basket of goods should be equalized.

PPP calculated by comparing price of one good across in different currencies is known as Absolute PPP. For example, if one kg of wheat costs INR 12 in India and similar quality of wheat costs 2 dollars in USA, then the PPP exchange rate would be INR 6 per USD. This is the absolute version of theory of purchasing power of parity.

Another form of less stringent PPP stresses on comparing price index of basket of goods in both countries rather than comparing any one good/service. There is an alternative version of the PPP theory called the “relative PPP theory.” In essence this is a dynamic version of the absolute PPP theory. In other words; the spot rate between two countries can be determined by comparing the price index of a basket of similar goods and services. It is very important to understand at this point is that price index should comprise of “similar” goods & services” consumed by residents of both country. If the actual spot exchange rate equals the rate calculated by PPP, then PPP holds true. However, it is empirically proved that PPP in absolute form based on single product or based on a price index does not hold good.

Problems with the PPP Theory

The main problem with the purchasing power parity (PPP) theory is that the PPP condition is rarely satisfied within a country.

Transportation costs and trade restrictions

These mean that there can be no tariffs on imports or other types of restrictions on trade. Since transport costs and trade restrictions do exist in the real world, this would tend to drive prices for similar goods apart. Transport costs should make a good cheaper in the exporting market and more expensive in the importing market. Similarly, an import tariff would drive a wedge between the prices of an identical good in two trading countries’ markets, raising it in the import market relative to the export market price. Thus the greater transportation costs and trade restrictions are between countries, the less likely for the costs of market baskets to be equalized.

Costs of non tradable inputs

Many items that are homogeneous nevertheless sell for different prices because they require a non tradable input in the production process. As an example, the same food item will be charged at two different prices at a local hotel and a five star restaurant. The increased rate of rent and more comfortable hospitality will be added to the cost of menu causing a higher charge in the restaurant. They can’t discount this as it is a part of their production. At this stage prices would not be equalized.

Perfect information

The law of one price assumes that individuals have good, even perfect, information about the prices of goods in other markets. Only with this knowledge will profit seekers begin to export goods to the high price market and import goods from the low-priced market. Consider a case in which there is imperfect information. Perhaps some price deviations are known to traders but other deviations are not known, or maybe only a small group of traders know about a price discrepancy and that group is unable to achieve the scale of trade needed to equalize the prices for that product. (Perhaps they face capital constraints and can’t borrow enough money to finance the scale of trade needed to equalize prices.) In either case, traders without information about price differences will not respond to the profit opportunities and thus prices will not be equalized. Thus the law of one price may not hold for some products, which would imply that PPP would not hold either.

Other market participants

Notice that in the PPP equilibrium stories, it is the behavior of profit-seeking importers and exporters that forces the exchange rate to adjust to the PPP level. These activities would be recorded on the current account of a country's balance of payments. Thus it is reasonable to say that the PPP theory is based on current account transactions. This contrasts with the interest rate parity theory in which the behavior of investors seeking the highest rates of return on investments motivates adjustments in the exchange rate. Since investors are trading assets, these transactions would appear on a country's capital account of its balance of payments. Thus the interest rate parity theory is based on capital account transactions.

It is estimated that there are approximately \$1–2 trillion dollars worth of currency exchanged every day on international foreign exchange (Forex) markets. That's one-eighth of U.S. GDP, which is the value of production in the United States in an entire year. In addition, the \$1–2 trillion estimate is made by counting only one side of each currency trade. Thus that's an enormous amount of trade. If one considers the total amount of world trade each year and then divides by 365, one can get the average amount of goods and services traded daily. This number is less than \$100 billion dollars. This means that the amount of daily currency transactions is more than ten times the amount of daily trade. This fact would seem to suggest that the primary effect on the daily exchange rate must be caused by the actions of investors rather than importers and exporters. Thus the participation of other traders in the Foreign exchange market, who are motivated by other concerns, may lead the exchange rate to a value that is not consistent with PPP.

PPP is based on the concept of “**Law of One Price**”. The LOOP indicates that identical good/services should sell for the same price in two separate markets when there are no transportation costs and no differential tax rates exists in the two markets. If there is a price difference, then exchange rate would move in such a manner so that, in both markets the product will sell at same price. The law of one price says that identical goods should sell for the same price in two separate markets when there are no transportation costs and no differential taxes applied in the two markets.

The LOOP holds well only if three conditions are satisfied. These three are:

- Transportation costs, barriers to trade (import-export levies, customs duty etc) and other transaction costs (currency conversion fee) are insignificant.
- There must be competitive markets for the goods and services in both countries.
- The LOOP applies only to tradable goods. LOOP is not applicable to immobile goods such as houses and many services that are local in nature.

Mint Parity Theory

Mint parity theory explains the determination of exchange rate between the two countries which are on gold standard. In a country which is on gold standard, the currency is either made of gold or is convertible into gold at a fixed rate. There are also no restrictions on the export or import of gold. The central bank of the country was always ready to buy and sell gold at the specified price. The rate at which the standard money of the country was convertible into gold was called mint price of gold.

Determination of Exchange Rate.

The rate of exchange between the gold standard countries is determined on a weight to weight basis of the gold contents of their currencies. In other words, the exchange rate is determined by the, gold equivalents of the currencies involved. For examples, before World War-II (1926-1931) England and American currencies were on gold standard. The mint par between these two countries was pound one of England=4.86 dollars of America. The rate of exchange showed that one pound of England contained as much fine gold as 4.866 dollars contained in America. The ratio of weights of metal was called the mint parity.

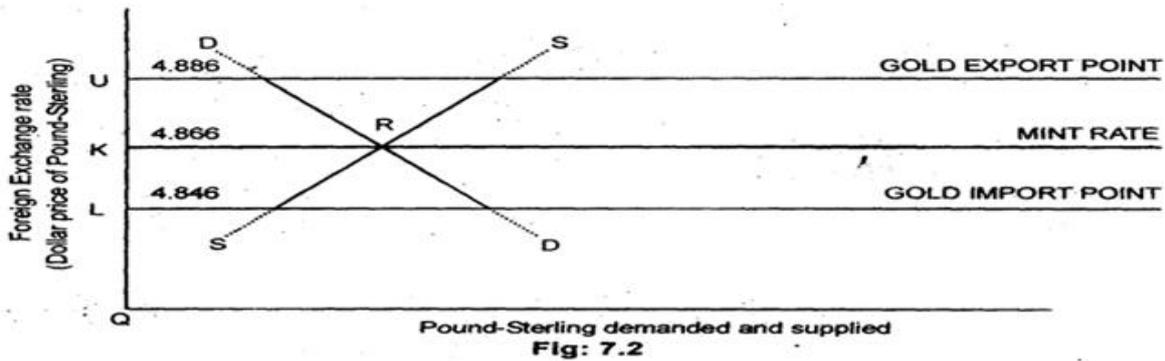
The mint par was a fixed rate. It remained constant so long as the monetary laws of the country remained unchanged. The current or the market rate of exchange, however, fluctuated from time to time due to changes in the balance of payments of the respective countries. The variations in the exchange rate remained within the well defined limits called gold points or specie points. The gold points refer to the limits within which the market rate of exchange between two gold standard countries fluctuates from the mint parity equilibrium. The upper gold point indicates the upper limit and the lower gold point indicates the lower limit.

Calculations of gold points.

But the actual rate of exchange could vary above and below the mint parity by the cost of shipping gold between the two countries. The gold points are determined by the costs of transporting gold (such as shipping, packing, insurance charges, etc.) from one country to another. The upper gold point (upper specie point) is obtained by adding the cost of shipping gold to the mint parity rate of exchange. The lower gold point (lower specie point) is arrived at by deducting the cost of shipping gold from the mint parity rate of exchange. For example, the mint parity rate of exchange between England and America is £1=\$4.866. The shipping cost of gold from America to England worth 4.866 dollars of gold is .02 cent. In that case the upper gold point = £1=\$4.866 + .02=\$4.886. The lower gold point = £1\$4.866 .02= \$4.846.

Gold export point and gold import point.

The upper gold point is also called gold export point. It is the rate of exchange above which the gold will be exported. The lower gold point is also called the gold import point. It is the rate of exchange below which gold will be imported. Under the gold standard, the exchange rate between the two currencies cannot vary above the upper gold point and below the lower gold point as is illustrated in the figure.



In the figure the demand curve DD' and supply curve DD' intersect each other at point R. OR is the exchange rate between the dollar and the pound. It may here be noted that the exchange rate need not be at the mint parity. It can be anywhere between the upper and lower gold points depending on the shape of demand and supply curves. An American importer would not pay more than \$4.886 to obtain one pound of England. It is because he can purchase \$4.866 worth of gold from the US Treasury and ship it to England at a cost of .02 cent per pound. The exchange rate, therefore, cannot rise beyond the gold export point OU. The supply curve of pounds becomes perfectly elastic at the US gold export point.

Similarly, the rate of exchange cannot fall between \$4846 to a pound. The exchange rate of \$4846 to a pound is the US gold import point. In case of lower rate, the Americans would prefer to use the pounds to import gold from England. The Americans demand curve for pounds becomes perfectly elastic at the gold import point OL. The mint parity theory has long been discarded ever since the gold standard broke down. Now no country is on the gold standard. So it has an academic curiosity only.

Drawbacks

The gold standard has only limited applicability in the present world. This will function only under gold base standard. It fails to explain the determination of exchange rate in the present day floating system.

COMPONENTS OF FOREIGN EXCHANGE RESERVES

Foreign exchange reserves are the financial hoardings of a country to intervene or support its external economic transactions at times of necessity. Since US dollar is the dominant vehicle currency, generally foreign exchange reserves are denominated in terms of it. At times of foreign exchange risk or BOP crisis central banks and governments intervene and smoothen out the turbulence using this reserve. It is an important indicator of external economic health of a country. It mainly consists of four components- gold reserves held by the central bank, stock of foreign currencies, reserve tranche position in IMF and the holding of IMF currency (Special Drawing Rights). In India RBI keeps 557.75 tonnes gold as reserve. Foreign currency holdings are kept by the central bank in the form of US dollar, Euro, Pound Sterling and Japanese Yen. These are used for open market operations and other intervening activities. Reserve tranche position is the borrowal facility offered by the IMF to the member countries. Using it a country can borrow upto 25% of its quota (which is equal to its gold subscription and hence also called gold tranche) unconditionally. SDR is the reserve asset created by IMF in 1967 and provided to the members proportionate to their quotas. This accounting money is also called paper gold and is not used as a circulating currency.

MODULE 5

BALANCE OF PAYMENTS

“The Balance of Payments is a systematic records of all economic transactions between residents of the reporting Country & residents of foreign countries.”

- Kindleberger

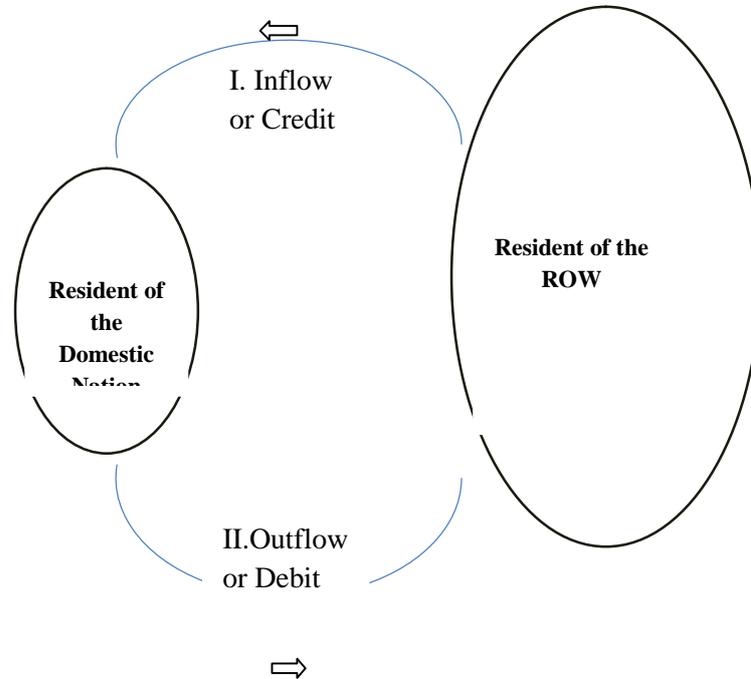
Introduction:-

Balance of Payment (BOP) is a summary statement of all economic transactions of the residents of a nation with the residents of Rest of the World (ROW) during a particular period of time. BOP is recorded usually for a Calendar year. In other words B O P is a systematic statistical statement or record of the character and dimensions of the country's economic relationship with the rest of the world. Balance of payments is integral parts of national accounts for an open economy.

The main purpose of the Balance of Payment is to inform the Government of the international economic position of the nation and to help in formulating its of monetary, fiscal and trade policies. The Foreign Governments also use the Balance of Payment accounts for the purpose of formulating trade relation with other countries. Other economic agents like Bank firms and individual may also depend upon the Balance of Payment accounts for various purposes. The Balance of Payment account serves another purpose. The balance of Country's foreign transactions and accompanying issues of the exchange rate and reserves (whether of Gold or of foreign currencies) has long been a focus of interest for policy makers. Thus the state of B.O.P plays an essential role in providing information to economic agents and Governments. According to Sodersten, "the B.O.P is nearly a way of listing receipts and payments in international transactions for a country"

The Balance of Payment account have significant role in an open economy. An open economy is one which has economic relations with the rest of the world. An economic transaction is an exchange of value, involving a payment or receipts of money in exchange of a good, a service or an asset for which payment is made between the resident of a country with resident of the rest of the world. In 'barter trade', goods are exchanged for goods and in some cases assets are transacted against assets. Some goods are transferred to other as a gift, without expecting payment known in economics as the transfer payments or unilateral transfers. Each of these transactions occurs between the residents of a country and between the economic agents residing in two different countries. If the exchange is happening between the residents of two countries, that transaction is an International economic transaction. An international economic transaction is systematically recorded in the books of accounts of balance of payments. Balance of payments are maintained in a 'Double entry book keeping principle'. Under such principle each transaction in the balance of payments is entered as a Credit or a Debit entry. A 'Credit entry' in Balance of Payments refers to an inflow or that transaction is the one that shows a receipt of funds from the rest of the world. Similarly a 'Debit entry' Balance of Payments refers to an outflow or that

transaction is the one that shows a payment of funds to the rest of the world. According to the Double entry book keeping principle, for each Debit entry a corresponding Credit entry is made to keep the balance of payment always in balance.



In the above flow chart diagrams the 1st flow shows an inflow of value which may appear as a Credit entry in the books of accounts of Balance of payments on the Domestic Country. This Inflow of value includes the receipts that the Resident of the domestic territory gets in return for the Export of commodities or Services (also known as the invisibles), unilateral transfers and the Foreign Capital receipts. 2nd flow shows an outflow of value. This may appear as a Debit entry in the books of accounts of Balance of payments of the Domestic Country. This outflow of value includes the payments that the Resident of the domestic territory makes in return for the Imports of commodities or Services (also known as the invisibles), unilateral transfers and the Investments abroad.

Balance of payments and balance of trade

All countries engaging in International Exchange of value may import some commodities and services from other countries. They also export certain other commodities and services which are surplus in their country. The difference between the value of goods and services exported out of a country and the value of goods and services imported into the country is known as the Balance of Trade. If a country has a balance of trade deficit, it imports more than it exports, and if it has a balance of trade surplus, it exports more than it imports. The balance is said to be favorable when the value of the exports exceeded that of the imports (i.e. exports exceed imports), and unfavorable when the value of the imports exceeded that of the exports (i.e. imports exceed exports). In other words it is the difference between the value of goods and services

exported out of a country and the value of goods and services imported into the country. The balance of trade is the official term for net exports that makes up the balance of payments. The official balance of trade is separated into the balance of merchandise trade for tangible goods and the balance of services.

A balance of trade surplus is most favorable to domestic producers responsible for the exports. However, this is also likely to be unfavorable to domestic consumers of the exports who pay higher prices. Alternatively, a balance of trade deficit is most unfavorable to domestic producers in competition with the imports, but it can also be favorable to domestic consumers of the exports who pay lower prices.

The difference between the Balance of Payments and Balance of trade can be explained with the help of the below given table.

Balance of Trade (BOT)	Balance of Payment (BOP)
Balance of Trade is defined as 'difference between export and import of goods and services'	Balance of Payment includes not only import and export of goods and services but also financial / capital transfer.
$BOT = \text{Net Earning on Exports} - \text{Net payment made for imports}$	$BOP = BOT + (\text{Net Earning on foreign investment i.e. payments made to foreign investors}) + \text{Cash Transfer} + \text{Capital Account} + \text{or} - \text{Balancing Item}$ or $BOP = \text{Current Account} + \text{Capital Account} + \text{or} - \text{Balancing item (Errors and omissions)}$
If export is more than import, at that time, BOT will be favorable. If import is more than export, at that time, BOT will be unfavorable.	Balance of Payment will be favorable, if the country has surplus in current account for paying your all past loans in her capital account. Balance of payment will be unfavorable, if country has current account deficit and it took more loan from foreigners. After this, it has to pay high interest on extra loan and this will make BOP unfavorable.
Need not be in balance always	Balance of payments to be in balance always.
Following are main factors which affect BOT a) cost of production b) availability of raw materials c) Exchange rate d) Prices of goods manufactured at home	Following are main factors which affect BOP a) Conditions of foreign lenders. b) Economic policy of Govt. c) all the factors of BOT

Balance of payment Accounting

Balance of Payments is essentially maintained in double entry book keeping principle. They record all international transactions between the residents of one country with the residents of other countries. Here residents refer to the individuals, business and governments and their agencies. International organizations are also regarded as foreign residents. Balance of payment accounts are kept in standard Double entry book keeping principle. International transactions are recorded in the balance of payments as a credit and a debit transaction. Credit transaction is that transaction which involves the receipt from the residents of the rest of the world. A debit transaction on the other hand involves a payment to the foreign residents. Under this method, each international transaction undertaken by the residents of a country are entered as a debit and credit entry of equal size, into the balance of payments. For example an export entered as credit in a countries balance of payment is followed by a debit entry of equal size, to show the manner in which the transaction is undertaken. Import transactions are entered as a debit transaction in the balance of payments and a credit entry of equal size is made in the books of account.

On the basis of its value 3 possibilities are there. They are: If Debit balance $>$ Credit balance it leads to Balance of Payment deficit. Here the inflow will be lesser than the outflow. Hence the nation experiences a deficit in its Balance of Payment accounts. On the other hand if the Debit balance $<$ Credit balance we have a Balance of Payment Surplus. Here the outflow will be lesser than the inflow. If Debit balance $=$ Credit balance then we can say that the nation's Balance of Payment is in balance.

Balance of Payment Accounts consists of the two sub accounts. They are Current account and Capital Account. Current account includes visible items (commodities) and Invisible items (Services). Capital account consists of long term and short term capital flows. Let us explain them in detail.

THE CURRENT ACCOUNT

The current account includes exports and imports of goods and services & unilateral transfers. Exports, weather it is goods or services are by convention entered as a credit items in the account. Imports are normally calculated free on board. That means that the cost of transportation, insurance etc are not included. Imports are normally calculated c.i.f (cost, insurance, freight). Transportation, insurance cost and fright are included.

Balance of payment accounts usually make differences between trade in goods and trade in services. In the current account of Balance of payment accounts, we have a visible part of commodities' and Invisibles part of Services'. The net of exports and import of visibles in Balance of payment accounts is called the merchandise trade balance. The net of exports and import of invisibles or services in Balance of payment accounts is called the services trade balance. Travel, Business Process outsourcing, Medical Transcription etc are examples for international trade in Services. The Capital account, on the other hand, consists of long term and short term capital flows. Let us explain them in detail.

Invisible trade is much more heterogeneous than the trade in goods. Trade in the latter, of which shipping, banking and insurance services and payments by residents as tourists abroad are usually the most important, Exports and imports of such services are flows of outputs whose values will be determined by the same variable that could affect the demand on supply for goods unilateral transfer or transfer payments.

Unilateral transfers are receipts which the residents of a country receive for free, without making any present or future service transaction in return. Unilateral receipts from abroad are entered as positive items and they are credited. Unilateral payments abroad are entered as negative items and they are debited. Unilateral transfers may be private unrequited transfers, which may be in the form of gifts received by domestic residents from foreign residents. Secondly official unrequited transfers, is the payment of pure aid by governments in developed countries to government in less developed countries (LDCs) . A third form of unilateral transfer has been important reparation payments. Typically such payments occurred when a morally and physically superior country came out of war and was in a position to make the foreign country or its former enemy pay indemnities.

The net value of the balance of visible trade and invisible trade and of unilateral transfers defined the balance on current account. It is, however, services and transfer payments or invisible items of the current account that reflect the true picture of the balance of payments account. They, along with the visible items, determine the actual current account position. If export of goods and services exceed import of goods and services, the balance of payments is said to be favorable. In the opposite case, it is unfavorable. In the current account, the exports of goods and services and the receipts of transfer payments are entered as credit because they represent the receipt from foreigners. On the other hand, the imports of goods and services and transfer of payments to foreigners are entered as debits because they represent payments to foreigners.

THE CAPITAL ACCOUNT

The capital account records all international financial transactions that involve resident of the country concerned- changing either his assets with or his liabilities to a resident of another country. Transactions in the capital account reflect change in a stock – either assets or liabilities. It is often useful to make distinctions between various forms of capital account transactions. The basic distinctions are between private and official transaction; between portfolio and direct investments. Distinction between private and official transaction is fairly transparent and need not concern us too much. On the other hand, portfolio investments are the acquisition of an asset that does not give the purchaser control over it. An example is the purchase of shares in a foreign company or of bonds issued by a foreign government Loans made to foreign firms or governments come into the same broad category. Foreign Direct investment (FDI) is the act of purchasing an asset and at the same time accruing control of it. The acquisition of a firm residing in one country by a firm in another country is an example.

The purchase of an asset in another country whether it is direct or portfolio investment, would appear as a debit item in the capital account for the country of the firm which purchase it and as a negative item in the capital account for the other country. The capital account outflows appear as a debit item in country's balance of payments and capital inflows as credit items. The net value of the balance of direct and portfolio investment defines the balance on capital account.

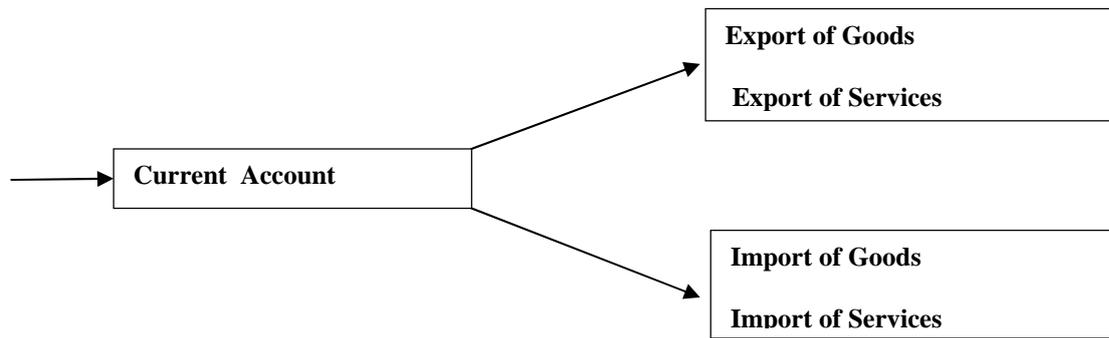
ERRORS AND OMISSIONS

The balances of payments accounts are completed by the entering some other minor items that can be identified but do not fall comfortably into one of the standard categories. Errors and omissions, which reflect transactions that have not been recorded for various reasons and cannot be entered under a standard heading, may cause Errors and omissions. Balance of payments is constructed as an accounting identity with each transaction theoretically recorded twice, the sum total of debits and credits should in theory always be equal. That means that if a debit entry is made to record an outflow of value, a corresponding credit entry is to be made in some other part of the books of account for theoretically maintaining balance in the books of accounts of the balance of payments. However one or other of the parts of transaction takes more than one year. discrepancy may arise and the Balance of payment may not balance.

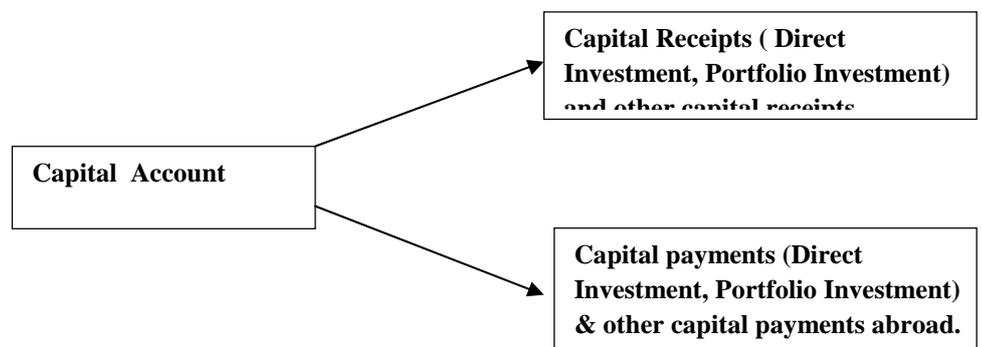
OFFICIAL RESERVES ACCOUNT

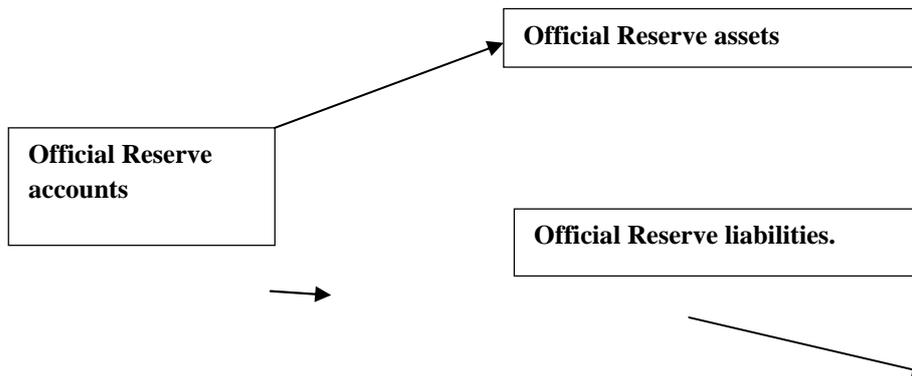
The official reserves account measures the changes in the official reserves and changes the foreign official assets in the country during the year. Official reserves consist of gold, Special Drawing Rights (SDRs) borrowed from the IMF, and holding of foreign convertible currencies. The changes in the country's reserves must reflect the net value of all the other recorded items in the balance of payments. These changes will of course be recorded accurately, and it is the discrepancy between the changes in reserved and the net value of the other recorded items that allows identifying the errors and omissions.

Increase in official reserves represents capital outflows from the country and are recorded as debits in the official reserves accounts of the books of accounts of Balance of Payments of the country. Any decrease in the official reserves is recorded as capital inflows and are credit entries in the reserves accounts of the books accounts of Balance of Payments of the country. The entries are similar to that of private capital but we are here dealing with the official capital. The items of the balance of payments account of the country can be noted (distinguishing credits and debits) as shown below:



Balance of Payments





Autonomous and Accommodating Flow

It is useful to distinguish between autonomous and accommodating items in the balance of payments. All transactions in the current and capital account are called automatic transactions. Transactions are said to be autonomous if their value is determined independently of the balance of payments. They take place for business or private motive. Accommodating items are transactions that come under the official reserve account and are determined by the net consequences of the autonomous items. They are required to balance international transactions. Alternatively items are said to be above the line (autonomous) or below the line (accommodating). Obviously the sum of the accommodating and autonomous items must be zero, since all entries in the balance of payment s accounts must come under one of the tw3o headings. A deficit in a nation's balance of payments is given by a net debit balance in the nation's autonomous items and a surplus is given by a net credit balance. In order to correct the deficit the accommodating flows to be positive in the first case and negative in the second.

The autonomous capital flow could take many forms. It could have been caused, for instance, by a foreign resident paying back a loan to a firm or it could be that a person or a company took up a loan abroad, by issuing bonds for instance. In all these cases it is a question of private persons or firms having international capital transaction. These transactions have an effect on the country's balance of payments but they are in no way caused by balance of payments considerations. In fact, they are all examples of autonomous capital movements.

The accommodating inflow of capital can take various forms. Foreign firms might accept short term claims on firms in the country or perhaps a foreign government extends a loan to the country. In the case of a less developed country, it might even be possible that a foreign government is willing to ease the balance of payments situation of the country by making it a gift amounting to the value of the accommodating inflow. Or possibly the county in question has had to deplete its reserves of foreign currency to settle its imbalance in autonomous capital inflow. In short the accommodating capital movements are a direct consequence of the balance of payments situation. Accommodating capital inflows are unforeseen capital flows, which have to be made to bring the balance of payments into equilibrium.

EQUILIBRIUM AND DISEQUILIBRIUM IN THE BALANCE OF PAYMENTS.

Balance of payments should always be in equilibrium. Disequilibrium in the balance of payments of a country appears either as a surplus or as a deficit. A Surplus in the balance of payments implies receipts from the rest of the world exceed payments made to rest of the world. A Deficit in the balance of payments occurs as the payments made to foreigners exceed receipts from the Rest of the world. As a BOP is in equilibrium any positive balance in its current accounts is exactly offset by a negative balance on its capital account and vice versa. In an accounting sense, the balances of payments always balance.

There is difference of opinion with regard to the primary cause of imbalances in Balance of Payments. Conventionally it is believed that the factors with regard to the current accounts are the primary causes of imbalance. They include the appreciation or a depreciation of exchange rate, the government's fiscal deficit, business competitiveness, and private behavior such as the willingness of consumers take debt to finance extra consumption. An alternative view, as argued by Ben Bernanke, the chairman of the American Federal Reserve, in a 2005 paper, is that the primary driver of Balance of payment deficit is the capital account. He maintained that the cause of Balance of payment disequilibria of US is a global savings glut which caused a runs ahead of savers in surplus countries, over the available investment opportunities, which resulted in excess consumption and asset price inflation.

MEASURES TO CORRECT BALANCE OF PAYMENT DISEQUILIBRIUM.

Persistent disequilibrium in the balance of payments, particularly a deficit in balance of payments, is undesirable because it (a) weakens the country's economic position at the international level, and (b) affects the progress of the economy adversely. It must be cured by taking appropriate measures. There are many measures to correct disequilibrium in the balance of payments. Important among them are discussed below:

1. Deflation:

In the wake of Deficit in a nation's Balance of Payments it can resort to tight monetary policy. The currency authority may try to lower the prices by reducing the quantity of money in circulation or follow a deflationary monetary policy. Deflation is the classical medicine for correcting the deficit in the balance of payments. Deflation refers to the policy of reducing the quantity of money in order to reduce the prices and the money income of the people. This is done by the central bank of the country through raising the bank rate, by selling the securities in the open market and by other methods can reduce the volume of credit in the economy which will lead to a fall in prices and money income of the people. Fall in prices will stimulate exports and reduction in income checks imports. Thus, deflationary policy restores equilibrium to the balance (a) by encouraging exports through reduction in their prices and (b) by discouraging imports through the reduction in incomes at home. Moreover, a higher interest rate in the domestic market

will attract foreign funds which can be used for correcting disequilibrium. However, deflation is not considered a suitable method to correct adverse balance of payments because of the following reasons: (a) Deflation means reduction in income or wages which is strongly opposed by the trade unions, (b) Deflation causes unemployment and suffering to the working class, (c) In a developing economy, expansionary monetary policy rather than contractionary (deflationary) monetary policy is required to meet the developmental needs.

2. Depreciation:

Another method of correcting disequilibrium in the balance of payments is depreciation or appreciation of the exchange rate. Depreciation means a fall in the rate of exchange of one currency (home currency) in terms of another (foreign currency). A currency will depreciate when its supply in the foreign exchange market is large in relation to its demand. In other words, a currency is said to depreciate if its value falls in terms of foreign currencies, i.e., if more domestic currency is required to buy a unit of foreign currency. An appreciation on the other hand is the rise in the value of a currency relative to the foreign currency. Depreciation helps a country to achieve a favorable balance of payments by checking imports and stimulating exports. The following are the defects of this method

- (i) It is not suitable for a country which follows a fixed exchange rate system.
- (ii) It makes international trade risky and thus reduces the volume of trade.
- (iii) The terms of trade go against the country whose currency depreciates because the foreign goods have become costlier than the local goods and the country has to export more to pay for the same volume of imports.
- (iv) Experience of certain countries has indicated that exchange depreciation may generate inflationary pressure by increasing the domestic price level and money income.
- (v) The success of the method of exchange depreciation depends upon the cooperation of other countries. If other countries also start depreciating their exchange rates, then these methods will not benefit any country.

3. Devaluation:

Devaluation refers to the official reduction of the external values of a currency. The difference between devaluation and depreciation is that while devaluation means the lowering of external value of a currency by the government, depreciation means an automatic fall in the external value of the currency by the market forces; the former is arbitrary and the latter is the result of market mechanism.

Thus, devaluation serves only as an alternative method to depreciation. Both the methods imply the same thing, i.e., decrease in the value of a currency in terms of foreign currencies.

Both the methods can be used to produce the same effects; they discourage imports, encourage exports and thus lead to a reduction in the balance of payments deficit.

The success of the method of devaluation depends upon the following conditions :

- (i) The elasticity of demand for the country's exports should be greater than unity.
- (ii) The elasticity of demand for the country's imports should be greater than unity.
- (iii) The exports of the country should be non-traditional and the increasingly demanded from other countries.
- (iv) The domestic price should not rise and should remain stable after devaluation.

- (v) Other countries should not retaliate by resorting to corresponding devaluation. Such a retaliatory measure will offset each other's gain.

Devaluation also suffers from certain defects:

- (i) Devaluation is a clear revelation on the country's economic weakness.
- (ii) It reduces the confidence of the people in country's currency and this may lead to speculative outflow of capital.
- (iii) It encourages inflationary tendencies in the home country.
- (iv) It increases the burden of foreign debt.
- (v) It involves large time lag to produce effects.
- (vi) It is a temporary device and does not provide a permanent remedy to correct adverse balance of payments.

4. Exchange Control:

Exchange control is the most widely used method for correcting disequilibrium in the balance of payments. Exchange control refers to the control over the use of foreign exchange by the central bank. Under this method, all the exporters are directed by the central bank to surrender their foreign exchange earnings. Foreign exchange is rationed among the licensed importers. Only essential imports are permitted. Exchange control is the most direct method of restricting a country's imports. The major drawback of this method is that it deals with the deficit only, and not its causes. Rather it may aggravate these causes and thus may create a more basic disequilibrium. In short, exchange control does not provide a permanent solution for a chronic disequilibrium.

5. Tariffs

Tariffs are duties (taxes) imposed on imports. When tariffs are imposed, the prices of imports would increase to the extent of tariff. The increased prices will reduced the demand for imported goods and at the same time induce domestic producers to produce more of import substitutes. Non-essential imports can be drastically reduced by imposing a very high rate of tariff.

Drawbacks of Tariffs :-

1. Tariffs bring equilibrium by reducing the volume of trade.
2. Tariffs obstruct the expansion of world trade and prosperity.
3. Tariffs need not necessarily reduce imports. Hence the effects of tariff on the balance of payment position are uncertain.
4. Tariffs seek to establish equilibrium without removing the root causes of disequilibrium.
5. A new or a higher tariff may aggravate the disequilibrium in the balance of payments of a country already having a surplus.
6. Tariffs to be successful require an efficient & honest administration which unfortunately is difficult to have in most of the countries. Corruption among the administrative staff will render tariffs ineffective.

6. Quotas

Under the quota system, the government may fix and permit the maximum quantity or value of a commodity to be imported during a given period. By restricting imports through the quota system, the deficit is reduced and the balance of payments position is improved.

Types of Quotas :-

1. the tariff or custom quota,
2. the unilateral quota,
3. the bilateral quota,
4. the mixing quota, and
5. import licensing.

Merits of Quotas :-

1. Quotas are more effective than tariffs as they are certain.
2. They are easy to implement.
3. They are more effective even when demand is inelastic, as no imports are possible above the quotas.
4. More flexible than tariffs as they are subject to administrative decision. Tariffs on the other hand are subject to legislative sanction.

Demerits of Quotas :-

1. They are not long-run solution as they do not tackle the real cause for disequilibrium.
2. Under the WTO quotas are discouraged as they are constraints on free trade.

We examined the method of correcting a deficit in a nation's current account or balance of payments by depreciation or a devaluation of the nation's currency. Depreciation implies a flexible exchange rate system. Devaluation, on the other hand, refers to the deliberate (policy) increase in the exchange rate by the nation's monetary authorities from one fixed or pegged level to another. However since both a depreciation and a devaluation operate on prices to bring about adjustment in the nation's current account and the balance of payments, they are both referred to as the price adjustment mechanism.

Balance Of Payments Adjustments with Exchange Rate Changes

Under flexible exchange rates, the disequilibrium in the balances of payments is automatically solved by the forces of demand and supply for foreign exchange. An exchange rate is the price of a currency which is determined, like any other commodity, by demand and supply. "The exchange rate varies with varying supply and demand conditions, but it is always possible to find an equilibrium exchange rate which clears the foreign exchange market and creates external equilibrium." This is automatically achieved by a depreciation (or appreciation) of a country's currency in case of a deficit (or surplus) in its balance of payments. Depreciation (or appreciation) of a currency means that its relative value decreases (or increases). Depreciation has the effect of encouraging exports and discouraging imports. When exchange depreciation takes place, foreign prices are translated into domestic prices.

Suppose the Rupee depreciates in relation to dollar. It means that the price of a rupee falls in relations to the dollar in the foreign exchange market. For example assume that the value of Indian currency was around Rs 40 =1\$ in 2008. Imagine that there is a deficit in India's BOP. Deficit is due to large imports compared to its exports. In 2013, depreciation of Indian rupee caused the exchange rate to increase to RS 68 =1\$. This causes exports to increase and imports to fall. In 2008 an Indian citizen could purchase 1 \$ worth commodity with Rs 40, but the same dollar worth commodity is worth RS 68 today. Hence the Imports fall and exports increases. The Balance of payment moves back to equilibrium. The effect of depreciation of a currency is to make imports dearer and exports cheaper. Thus, this leads to the lowering of the prices of Indian exports in US and raising the prices of US imports in the India. When import prices are higher in the India, Indians will purchase fewer goods from the U S. On the other hand, lower prices of Indian exports will increase their sales to U S. Thus the India exports will increase and imports diminish, thereby bringing equilibrium in the balance of payments.

ASSUMPTIONS

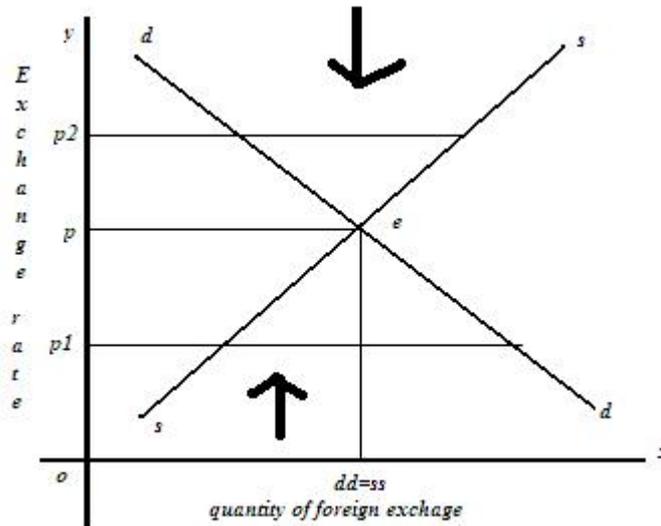
The analysis is based on the following assumptions

1. There are only two countries.
2. Both are on flexible exchange rate system
3. BOP disequilibrium is automatically adjusted by changes in exchange rates
- 4, Prices are flexible in both the countries
5. There is free trade between the two countries

Given these assumptions, the adjustment process is explained in terms of the following

In the above figure D is the Indian demand curve of U S \$ which is a derived demand from the demand for U S imports, and S is the U.S. supply curve of foreign exchange representing its exports to India.

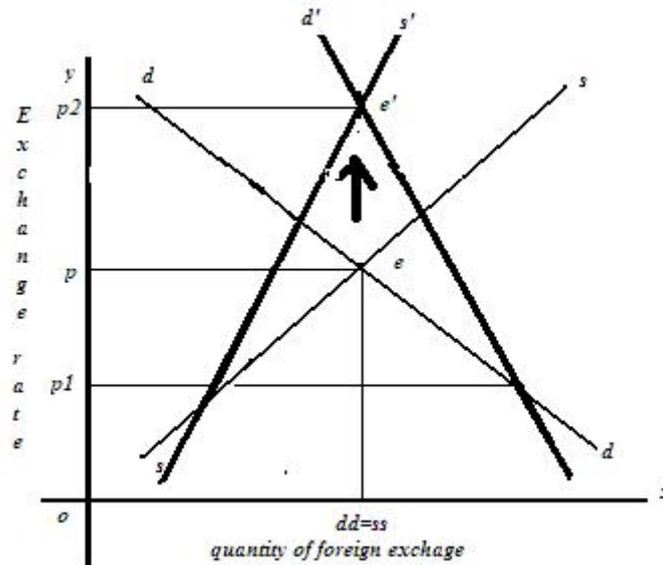
FIGURE 1



At p the demand and supply of the Indian foreign exchange is in equilibrium where the rate of exchange between Indian Rupee and US \$ is op and the quantity of exchange is $odd=oss$. If the exchange rate is at $p1$ the demand for U S dollar is greater than its supply. This implies that the import from US is greater than exports, and hence a deficit in India's BOP. This causes the Rupee to depreciate and the exchange rate finally sets at p and BOP reaches back to equilibrium. The currency needs to be depreciated by $p1p$ amount for the BOP to be in balance. The exact opposite happens when the exchange rate is at $p2$ (a surplus in BOP).

The above analysis is based on the assumptions of relative elasticity of demand and supply of foreign exchange. However, in order to measure the full effect of depreciation on relative prices in the Balance of payment of the country we have to take the impact of these elasticities also. It is not necessary that the demand and supply conditions be relatively elastic as shown in the above diagram. An additional demand and supply curve as illustrated in the below given diagram requires more depreciation to correct the disequilibrium in the BOP.

FIGURE 2



Where the original less elastic demand and supply curves of foreign exchange are d and s respectively which intersect at p and the equilibrium exchange rate is op . Here the new sets of demand and supply curves (d' and s') intersects at a higher point ie e' and p_1p_2 depreciation is insufficient to bring about equilibrium in the BOP. here we need p_1p_2 depreciation in the domestic currency. Hence greater depreciation is needed when the Demand and Supply of foreign currency is relatively inelastic.

Automatic price adjustment under gold standard

Under the international gold standard which operated between 1880-1914, the currency in use was made of gold or was convertible in to gold at fixed rate. The central bank of the country was always ready to buy and sell gold at the specified price. The rate at which the standard money of the country was convertible into gold was called the mini price of gold. This rate was called the mint parity or mint par of exchange because it was based on the mint parity by the cost of shipping gold between the two countries.

Suppose the US had a deficit in its balance of payments with Britain. The difference between the value of imports and exports would have to be paid in gold by US importers because the demand for pounds exceeded the supply of pounds. But the transshipment of gold involved transportation cost and other handling charges ,insurance,etc. Suppose the shipping cost of gold from the US to Britain was 3 cents. So the importers would have to spend \$6.03(\$6+.03c) for getting£1. This could be the exchange rate which was the US gold export point or upper specie

point. No US importer would pay more than \$6.03 to obtain £1 because he could buy \$6 worth of gold from the US treasury and ship it to Britain at a cost of 3 cents per ounce. Similarly, the exchange rate of the pound could not fall below \$5.97 to a pound was the US gold import point or lower specie point. The exchange rate under the gold standard was determined by the forces of demand and supply between the gold points and was prevented from moving outside the gold points by shipments of gold. The main objective was to keep BOP in equilibrium. Deficit or surplus in BOP under the gold standard was automatically adjusted by the price-specie-flow mechanism. For instance, BOP deficit of a country meant a fall in its foreign exchange reserves due to an outflow of its exports and reduce its imports. This adjustments process in BOP was supplemented by a rise in interest rates as a result of reduction in money supply. This led to the inflow of short-term capital from the surplus country. Thus the inflow of short-term capital from the surplus to the deficit country helped in restoring BOP equilibrium.

Adjustment mechanism of balance of payments under income approach

In examining the price adjustment mechanisms, we implicitly assumed that national income remained constant. However, a change in the level of trade affects national income, which in turn induces a change in the value of imports. For example starting from an equilibrium position in the balance of trade and less than full employment domestically, an autonomous increase in the value of exports causes real national income (Y) to rise by an amount equal to the increase in X times the foreign trade multiplier k, if the marginal propensity to save or $MPS = S/Y = 0$, then $k = 1/MPM$, where M is the marginal propensity to import, OR M/Y . In this case, the induced increase in M resulting from the increase in Y equals the original autonomous increase in X, and so the adjustment in the balance of payments is complete. If, on the other hand (more realistically) $MPS > 0$, $K = 1/(MPS + MPM)$ and the induced increase in M falls short of the increase in X and the adjustment is incomplete.

TRENDS IN INDIA'S BOP

The true index of economic prosperity or disparity of a country in relation to the other countries of the world is provided by the balance of payments account. A typical problem of the developing countries is that of a chronic BOP deficit, India being no exception. This mainly due to unequal sharing of gain from trade, deterioration in underdeveloped countries Terms of Trade. India has been facing BOP disequilibrium right since independence, culminating into a disaster in 1990-91, the year of the acute BOP crisis. Indian foreign reserves fell below \$1 billion, barely sufficient to finance a month's import bill. India approached the International Bank for Reconstruction and Development (IBRD), popularly known as World Bank and the International Monetary Fund (IMF), and received \$7 billion as loan to manage the crisis. For available the loan, these international agencies expected India to liberalise and open up the economy by removing restrictions on the private sector, reduce the role of the government in many areas and remove trade restrictions.

BOP situation pre-reform period

The India's BOP always under pressure and had huge deficits due to high imports of food grains and capital goods, the heavy external borrowings and its payment and poor exports. India's aim after attaining independence was to attain economic self-reliance. For this the country had to tap both the internal as well as the external resources. Not only was our technology backward then, there was food scarcity too. Large amounts of food grains had to be imported to feed the huge population. Self-reliance was to be achieved through import substitution. For this basic industries had to be set up which required import of capital goods. Heavy capital goods were imported but other imports were severely restricted to shut off competition in order to promote domestic industries. All focus was on import substitution, with gross neglect of exports. Such inward-looking protectionist policies did result in some self-reliance in the consumer goods industries, but the capital goods industries remained mostly import-intensive. The high degree of protection to Indian industries led to inefficiency and poor quality products due to lack of competition. The high cost of production further eroded our competitive strength. These are some internal factors that cause for the deficit in BOP.

Rising petroleum products demand, the two oil shocks, harvest failure, all put severe strain on the economy. The BOP situation remained weak throughout the 1980s, till it reached the crisis situation in 1990-91. When India was on the verge of defaulting due to heavy debt burden and constantly widening trade deficit. India had to resort to large-scale foreign borrowings for its developmental efforts in the field of basic social and industrial infrastructure. The country's resources were very much limited due to low per capita income and savings. The situation worsened because the Government of India resorted to heavy foreign borrowings to correct the BOP situation in the short run out of panic. By 1985-1990 India had to resort to large-scale foreign borrowings for its developmental efforts in the field of basic social and industrial infrastructure. The country's resources were very much limited due to low per capita income and savings. The situation worsened because the Government of India resorted to heavy foreign borrowings to correct the BOP situation in the short run out of panic.

India mainly primary product exporters, the price of which fluctuated heavily with fluctuations in world market demand. Primary products exporting countries have an unfavorable term of trade. The earnings from primary product exports were low and unstable. The quality of Indian products was not up to the world standards due to which we could not sustain markets. The instability of the exchange value of the rupee was another problem. The constant devaluations (to promote exports) raised the amount of external debt. The value of rupee was managed by the central bank (fixed exchange rate). The strict foreign exchange controls also encouraged hawala trade.

India followed a strongly inward-looking policy, laying stress on import substitution. Ideally, imports should be financed by export earnings. But because there was export pessimism, the deficit was financed either by the invisible earnings or by foreign aid or depletion of valuable foreign exchange reserve. India's BOP was thus beset with several problems. The process of liberalization began from the mid-1980s. Restrictions on certain imports were removed, particularly those which were used as inputs for export production. But by then the situation was already bad and all the mismanagement ultimately led to the 1990-91 BOP crisis.

TRENDS IN INDIA'S BOP POST AND PRE REFORM PERIODS

It is clear from the Table1 the Balance of Payment situation started improving since 1991 except for the years 1995-96 and 2008-09 . The reasons for satisfactory performance of BOP are as follows :-

1. **High earnings from invisibles** : The positive earnings from invisibles covered a subpart of the trade deficit with the result that the account deficit was reduced significantly. Earning invisibles exceeds the deficit on trade account in 2001-02,2002-03and 2003-04 with the result that there surplus on current account in these years. The software exports and private remittances that are the main new contributors to improve in the balance of payment situation recently.
2. **Rise in external commercial borrowing**: External commercial borrowings have been an important source of funds for the government. Over the years the net external commercial borrowings have increased. In 1991-92 the external commercial borrowing was\$1456 million .During 2001-02 to 2003-04 external commercial borrowing were negative. During 2007-08, the external commercial borrowing were \$22609 million which was 21.0 percent or one-fifth of total capital inflow(net). In 2008-09 ,external commercial borrowings were only \$7941 million
3. **Non-Resident deposits**: The non-resident deposits add to the capital account of BOP. In 1990-91, non-resident deposits (net) were 1.5 US \$ billion, which increased to 2.9 US \$ billion in 2009-10. The various schemes of incentives announced by Indian government helped in attracting huge deposits from non-resident Indians.
4. **Role of Foreign Investment**: Foreign investment is constituted of (1)foreign direct investment and (2) portfolio investment. portfolio investment, in turn consists of (a) foreign institutional investment and (b) euro equities and others (which includes Global Depository Receipts (GDRs), American Depository Receipts (ADRs) and Offshore funds and others).Since 1991 the govt has been offering various concessions, facilities and incentive to the foreign investors with a view to encouraging foreign investment into the country. These measures have helped in increasing foreign investment substantially in the recent years. In 1993-94, the foreign was \$4,235 million which was 43 percent of the total capital inflows(net) of \$9882 million in the country. In 2002-03 it was \$4161 million and rose to \$14753 million in 2007-08 and \$3467 million in 2008-09 because of Global recession investors withdrawal of portfolio investment.

Table1 India's BOP Indicators (1980-2012) (US \$ million)						
Year\ Items	Trade Balance	Net Invisibles	Balance cur a/c	Balance cap a/c	Overall balance	Reserve(-increase)
1980-81	-7869	5065	-2804	1665	-1140	654
1981-82	-7273	4094	-3179	657	-2523	1812
1982-83	-6978	3572	-3407	2087	-1319	-649
1983-84	-6714	3499	-3216	2655	-561	-750
1984-85	-5654	3238	-2417	3147	730	-779
1985-86	-7833	2967	-4867	4506	-361	577
1986-87	-7316	2756	-4560	4512	-47	573
1987-88	-7168	2316	-4852	5047	195	737
1988-89	-9361	1364	-7997	8064	68	1001
1989-90	-7456	615	-6841	6977	136	740
1990-91	-9437	-242	-9680	7188	-2492	1278
1991-92	-2798	1620	-1178	3777	2599	-3384
1992-93	-5447	1921	-3526	2936	-590	-698
1993-94	-4056	2897	-1159	9694	8535	-8723
1994-95	-9049	5680	-3369	9156	5787	-4644
1995-96	-11360	5447	-5912	4690	-1222	2937
1996-97	-14815	10196	-4619	11412	6793	-5818
1997-98	-15507	10008	-5499	10010	4511	-3893
1998-99	-13246	9208	-4038	8260	4222	-3829
1999-00	-17841	13143	-4698	11100	6402	-6142
2000-01	-12460	9794	-2666	8535	5868	-5842
2001-02	-11574	14974	3400	8357	11757	-11757
2002-03	-10690	17035	6345	10640	16985	-16985
2003-04	-13718	27801	14083	17338	31421	-31421
2004-05	-33702	31232	-2470	28629	26159	-26159
2005-06	-51904	42002	-9902	24954	15052	-15052
2006-07	-61782	52217	-9565	46171	36606	-36606
2007-08	-91467	75731	-15737	107901	92164	-92164
2008-09	-119519	91605	-27915	7835	-20079	20080
2009-10	-118202	80022	-38180	51622	13441	-13441
2010-11	-130593	84648	-45945	58996	13050	-13050
2011-12	-189759	111604	-78155	65324	-12832	12831

Source: RBI, Hand book of statistics on Indian Economy

From the table-1 it is clear that India's trade balance shows a deficit through out all years, which is shown in the figure-1. The intensity of deficit, shows an increasing rate. It is because of a continuous and faster increase in import compared to its export. After 2004-05 India's trade balance shows a much more higher

deficit mainly due to increase in crude oil price in international market, depreciation of Indian currency which worsen the import bill, fall in export earnings due the financial crisis.(table-3, Fig-3)

India's current account also reflects a continuous deficit in all years except 2001-02 , 2002-03, 2003-04.It is because of strong capital inflows during that periods. It is shown in fig-2.Current account deficit is comparatively low when we compared to trade deficit it is because higher earnings from invisibles which covers huge part of trade deficit.

In capital account all years appear with a surplus value. There is a low capital inflow during 2008-09 periods because of high withdrawal of portfolio investment due the financial crisis. It also affects overall balance of payment of our country. The overall balance of payment of our county shows a fluctuating trends. In 1980-81 to 1983-84, 1985-86 to 1986-87, 1990-91, 1996-97, 2008-09 and 2011-12 shows a deficit trend.

Fig-1

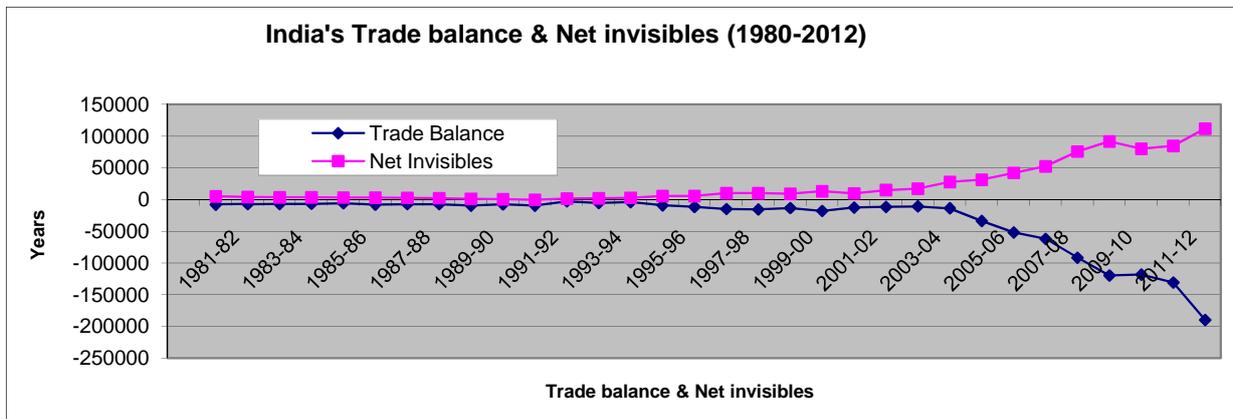


Fig-2

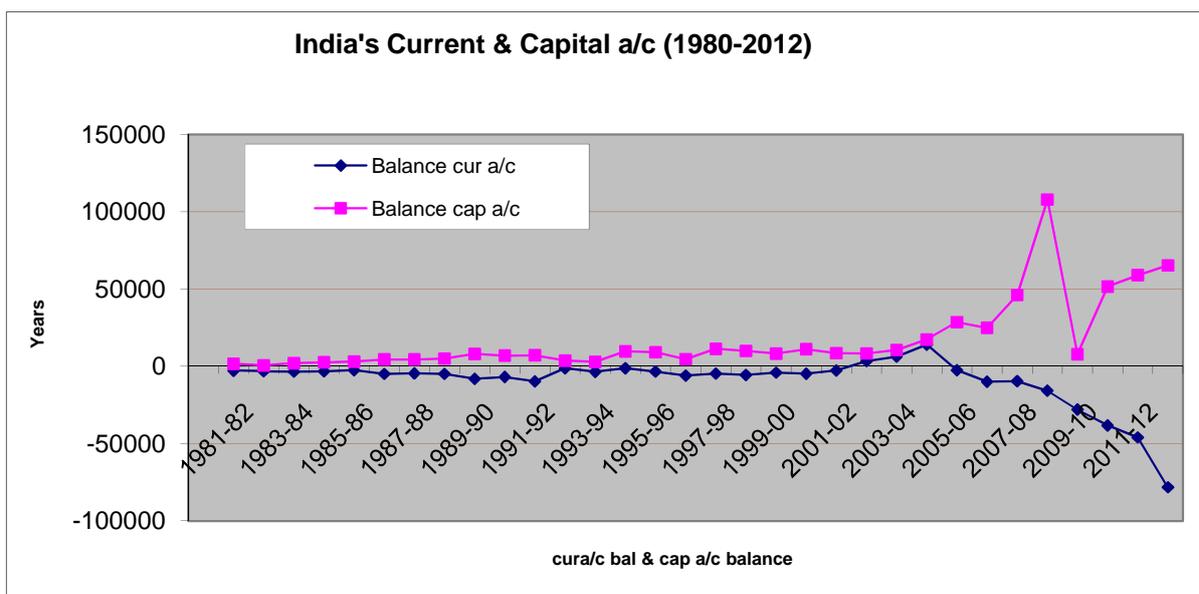


Fig-3

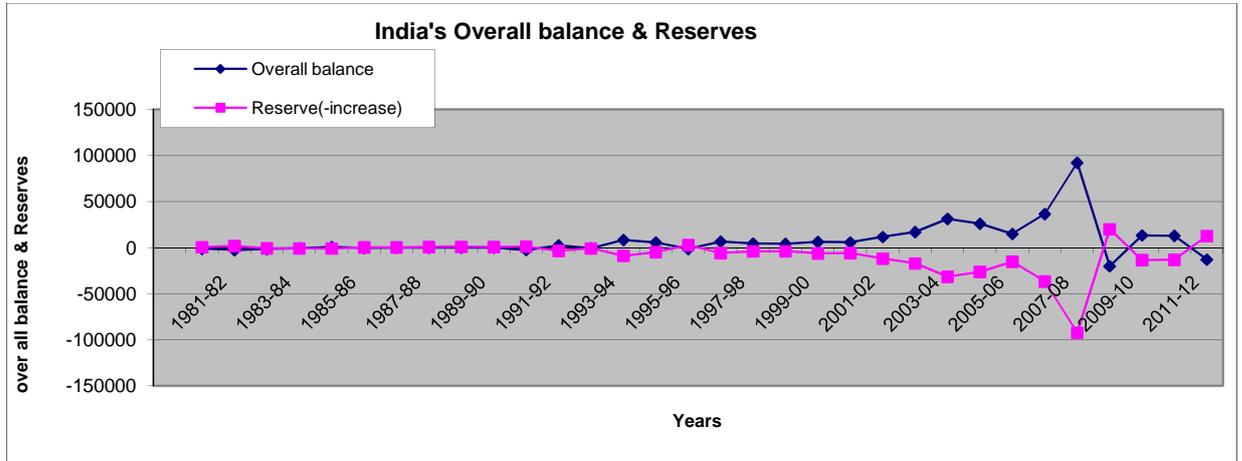
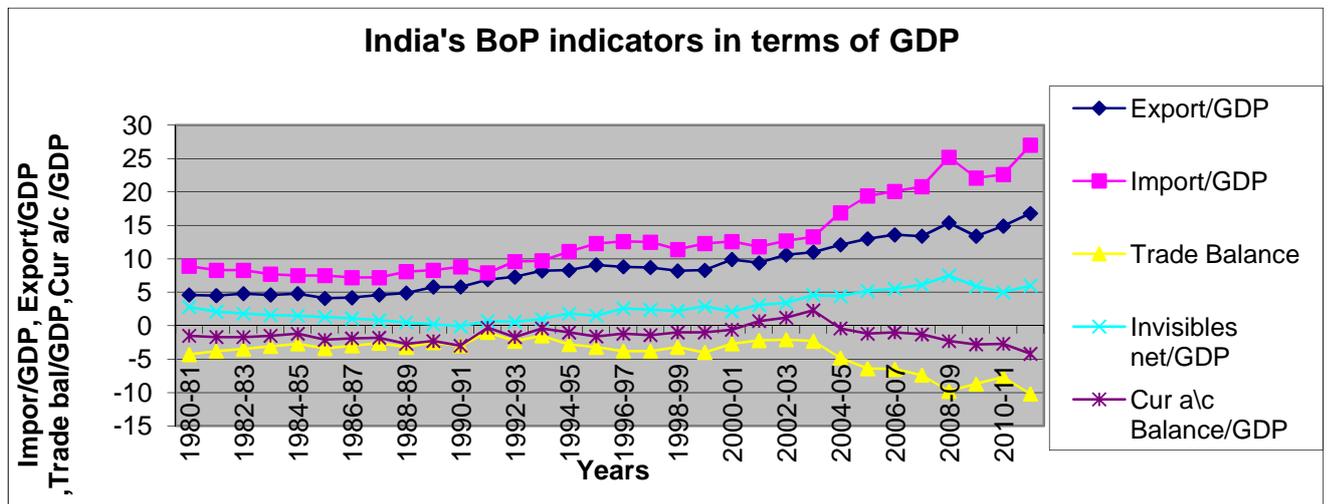


Fig-4



CONCLUSION

“The balance of payment of a country is a systematic record of all economic transactions between the residents of the country and the rest of the world. It presents a classified record of all receipts on account of goods exported, services rendered and capital received by residents and the payments made by them on account of goods imported and services received and capital transferred to non-residents or foreigners.” (Balance of Payment manual for India, September 2010). The main purpose of the balance of payment is to inform the govt of the international position of the nations and to help it its formulation of monetary, fiscal and trade policies. The transactions are presented in forms of double-entry book keeping. That means the transactions are classified as ‘credit or debit’. Credit transactions are those that involve the receipts of payments from foreigners. The export of goods and services, unilateral transfers from foreigners and capital inflows are credited and entered with a positive sign. Debit transactions are those that involve the making payments to foreigners. The import of goods and services, unilateral transfers to foreigners, and capital outflows are debited and entered with a negative sign. Each transaction is recorded twice, once as a credit and once as a debit of an equal amount. This is known as double-entry book keeping. If a nation’s inflows are greater than its outflows (credit > debit) the BOP said to be in surplus. If a nation’s outflows are greater than its inflows (debit > credit) the BOP said to be in deficit.