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Authors

✿ **Prof.C.V.Challam**

✿ **Prof.G.Sudarana Reddy**

✿ **Prof. Murali Krishna**

✿ **Prof. P. Raman**

✿ **Prof. S. Muthaiah**

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Paper - XIX

International Business

Unit – I

International Monetary and Financial System: Importance of international finance; Bretton woods conference and afterwards, IMF and the World Bank; European monetary system - meaning and scope.

Unit – II

Balance of Payment and International Linkages: Balance of payments and its components; International flow of goods, services and capital; Copying with current account deficit.

Unit – III

International Financial Markets and Instruments: International capital and money markets; Money and capital market instruments; Salient features of different international markets; Arbitrage opportunities; Integration of markets; Role of financial intermediaries.

Unit – IV

Foreign Exchange Markets: Determining exchange rates; Fixed and flexible exchange rate system; Exchange rate theories; Participants in the foreign exchange markets; Foreign exchange market - cash and spot markets; Exchange rate quotes; LERMS; Factors affecting exchange rates - spot rates, forward exchange rates, forward exchange contracts; Foreign exchange and currency futures; Exchange rate arrangement in India; Exchange dealings and currency possession; information and communication; Foreign exchange trades.

Unit – V

International Capital and Money Market Instruments; GDRs, ADRs, IDRs, Euro bonds, Euro loans, Repos, CPs, floating rate instruments, loan syndication and Euro deposits.

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UNIT – I

International Monetary and Financial System

Learning Objectives

After studying this unit, you should be able to understand the:

- Concept of International Monetary and Financial System:
- Importance of international finance;
- Bretton woods conference and afterwards developments;
- Role of IMF and the World Bank in International business;
- Meaning and scope of European monetary system.

Introduction

The international monetary system is the framework within which countries borrow, lend, buy, sell and make payments across political frontiers. The framework determines how balance of payments disequilibrium is resolved. Numerous frameworks are possible and most have been tried in one form or another. Today's system is a combination of several different frameworks. The increased volatility of exchange rate is one of the main economic developments of the past 40 years. Under the current system of partly floating and partly fixed undergo real and paper fluctuations as a result of changes in exchange rates. Policies for forecasting and reacting to exchange rate fluctuations are still evolving as we improve our understanding of the international monetary system, accounting and tax rules for foreign exchange gains and losses, and the economic effect of exchange rate changes on future cash flows and market values.

Although volatile exchange rate increase risk, they also create profit opportunities for firms and investors, given a proper understanding of exchange risk management. In order to manage foreign exchange risk, however, management must first understand how the international monetary system functions. The international monetary system is the structure within which foreign exchange rates are determined, international trade and capital flows are accommodated, and balance-of-payments (BoP) adjustments made. All

of the instruments, institutions, and agreements that link together the world's currency, money markets, securities, real estate, and commodity markets are also encompassed within that term.

Currency Terminology

Let us begin with some terms in order to prevent confusion in reading this unit:

A foreign currency exchange rate or simply exchange rate, is the price of one country's currency in units of another currency or commodity (typically gold or silver). If the government of a country- for example, Argentina- regulates the rate at which its currency- the peso- is exchanged for other currencies, the system or regime is classified as a fixed or managed exchange rate regime. The rate at which the currency is fixed, or pegged, is frequently referred to as its par value. if the government does not interfere in the valuation of its currency in any way, we classify the currency as floating or flexible.

Spot exchange rate is the quoted price for foreign exchange to be delivered at once, or in two days for inter-bank transactions. For example, ¥114/\$ is a quote for the exchange rate between the Japanese yen and the U.S. dollar. We would need 114 yen to buy one U.S. dollar for immediate delivery.

Forward rate is the quoted price for foreign exchange to be delivered at a specified date in future. For example, assume the 90-day forward rate for the Japanese yen is quoted as ¥112/\$. No currency is exchanged today, but in 90 days it will take 112 yen to buy one U.S. dollar. This can be guaranteed by a forward exchange contract.

Forward premium or discount is the percentage difference between the spot and forward exchange rate. To calculate this, using quotes from the previous two examples, one formula is:

$$\frac{S - F}{F} \times \frac{360}{n} \times 100 = \frac{\text{¥114/\$} - \text{¥112/\$}}{\text{¥112/\$}} \times \frac{360}{90} \times 100 = 7.14\%$$

Where S is the spot exchange rate, F is the forward rate, and n is the number of days until the forward contract becomes due.

Devaluation of a currency refers to a drop in foreign exchange value of a currency that is pegged to gold or to another currency. In other words, the par value is reduced.

The opposite of devaluation is revaluation. To calculate devaluation as a percentage, one formula is:

$$\text{Percentage change} = \frac{\text{Beginning rate} - \text{ending rate}}{\text{Ending rate}}$$

Weakening, deterioration, or depreciation of a currency refers to a drop in the foreign exchange value of a floating currency. The opposite of weakening is strengthening or appreciating, which refers to a gain in the exchange value of a floating currency.

Soft or weak describes a currency that is expected to devalue or depreciate relative to major currencies. It also refers to currencies whose values are being artificially sustained by their governments. A currency is considered hard or strong if it is expected to revalue or appreciate relative to major trading currencies.

The next section presents a brief history of the international monetary system from the days of the classical gold standard to the present time.

International Monetary System

Over the ages, currencies have been defined in terms of gold and other items of value, and the international monetary system has been the subject of a variety of international agreements. A review of these systems provides a useful perspective from which to understand today’s system and to evaluate weakness and proposed changes in the present system.

The Gold Standard, 1876-1913

Since the days of the Pharaohs (about 3000 B.C.), gold has served as a medium of exchange and a store of value. The Greeks and Romans used gold coins and passed on this through the mercantile era to the nineteenth century. The great increase in trade during the free-trade period of the late nineteenth century led to a need for a more formalized system for settling international trade balances. One country after another set a par value for its currency in terms of gold and then tried to adhere to the so-called “rules of the game”. This later came to be known as the classical gold standard. The gold standard as an international monetary system gained acceptance in Western Europe in the 1870s. The United States was something of a latecomer to the system, not officially adopting the standard until 1879.

The “rules of the game” under the gold standard were clear and simple. Each country set the rate at which its currency unit could be converted to a weight of gold. The United States, for example, declared the dollar to be convertible to gold at a rate of \$20.67 per ounce of gold (a rate in effect until the beginning of World War I). The British pound was pegged at £4.2474 per ounce of gold. As long as both currencies were freely convertible into gold, the dollar/pound exchange was:

$$\frac{\$20.67/\text{ounce of gold}}{\pounds 4.2474/\text{ounce of gold}} = \$4.8665 / \pounds$$

Because the government of each country on the gold standard agreed to buy or sell gold on demand with anyone at its own fixed parity rate, the value of each individual currency in terms of gold-and therefore exchange rates between currencies- was fixed. Maintaining adequate reserves of gold to back its currency’s value was very important for a country under this system. The system also had the effect of implicitly limiting the rate at which any individual country could expand its money supply. Any growth in the amount of money was limited to the rate at which official authorities could acquire additional gold.

Inter-War Years and World War II, 1914 – 1944

After World War I, in twenties, the exchange rates were allowed to fluctuate. This was the result of large fluctuations in currency values. Consequently, the trade could not develop. Once a currency became weak, it was further weakened because of speculative expectations. The reverse happened with strong currencies, because of these unwarranted fluctuations in exchange rates, the trade volumes did not grow in proportion to the growth in GNP. Many attempts were made to return to gold standard. U.S. could adopt it in 1919, U.K. in 1925 and France in 1925. U.K. fixed pre-war parity. In 1934, U.S. modified the gold standard by revising the price of gold (from \$20.67/ounce to \$35/ounce) at which the conversions could be effected.

Till World War II practically the above practice remained in force. The gold standard to which countries returned in mid twenties was different than which existed prior to 1914. The major difference was that instead of two international reserve assets, there were several currencies, which were convertible to gold and could be termed as reserves. Apart from pound, French Francs, U.S. dollar had also gained importance. Whenever French accumulated pound sterling, they used to convert these into gold. The second difference was that Britain had returned to gold standard with a decline in relative costs and prices.

In 1931 the crisis began with the failure of a branch banking institution in Austria called Ke Kredit Anstalt. Had British, U.S. and French banks did not cooperated, this could have a small impact on world exchange rate environment, but French banks did not cooperate. Germans withdrew their money from Austria leading to deepening of crisis led to dismemberment of Gold Standard.

Bretton Woods and the International Monetary Fund (IMF), 1944-1973

Of paramount importance to the representatives at the 1944 meeting in Bretton Woods was the prevention of another breakdown of the international financial order, such as the one, which followed the peace after the First World War. From 1918 until well into the 1920s the world had witnessed a rise in protectionism on a grand scale to protect jobs for those returning the war, competitive devaluations designed for the same effect, and massive hyperinflation as the inability to raise conventional taxes led to use of the hidden tax of inflation: inflation shifts buying power from the holders of money, whose holdings buy less to the issuers of money, the central banks. A system was required that would keep countries from changing exchange rates to obtain a trading advantages and to limit inflationary policy. This meant that some sort of control on rate changes was needed, as well as a reserve base for deficit countries. The reserves were to be provided via an institution created for the purpose. The International Monetary Fund (IMF) was established to collect and allocate reserves in order to implement the **Articles of Agreement** signed in Bretton Woods.

The Articles of Agreement required IMF member countries (of which there were 178 as of March 1994) to:

1. Promote International Monetary Cooperation
2. Facilitate the growth of trade
3. Establish a system of multilateral payments
4. Create a reserve base

The reserves were contributed by the member countries according to a quota system (since then many times revised) base on the national income and importance of trade in different countries. Of the original contribution, 25 percent was in gold- the so-called gold tranche position- and the remaining 75 percent was in the country's own currency. A country was allowed to borrow up to its gold-tranche contribution without IMF approval and to borrow an additional 100 percent of its total contribution in four steps, each with additional stringent conditions established by the IMF. These conditions were designed

to ensure that corrective macroeconomic policy actions would be taken. The lending facilities have been expanded over the years. Standby arrangements were introduced in 1952, enabling a country to have funds appropriated ahead of the need so that currencies would be less open to attack during the IMF's deliberation of whether help would be made available. Other extensions of the IMF's lending ability took the form of:

- a. The **Compensating Financing Facility**, introduced in 1963 to help countries with temporarily inadequate foreign exchange reserves as a result of events such as crop failures.
- b. The **Extended Fund Facility** of 1974, providing loans for countries with structural difficulties that take longer to correct.
- c. The **Trust Fund** from the 1976 **Kingston Agreement** to allow the sale of goods, which was no longer to have a formal role in the international financial system. The proceeds of gold sales are used for special development loans.
- d. The **Supplementary Financing Facility**, also known as the **Witteveen Facility** after the then managing director of the IMF. This gives standby credits and replaced the 1974-1976 **Oil Facility**, which was established to help countries with temporary difficulties resulting from oil price increases.
- e. The **Buffer Stock Facility**, which grants loans to enable countries to purchase crucial inventories.

These facilities were supplemented by the 1980 decision allowing the IMF to borrow in the private capital market when necessary and by the extension of borrowing authority in the 1990 **General Arrangements to Borrow**, Which allows the IMF to lend to nonmembers. The scope of the IMF's power to lend was further expanded in 1993, when new facilities to assist in exchange-rate stabilization were made available.

As we have seen, the most important feature of the Bretton Woods agreement was the decision to have the U.S. dollar freely convertible into gold and to have the values of other currencies fixed in U.S. dollars. The exchange rates were to be maintained within 1 percent on either side of the official parity, with intervention required as the support points. This required to the United States to maintain a reserve of gold, and other countries to maintain reserve of U.S. dollars. Because the initially selected exchange rates could have been incorrect for balance-of-payments (BoP) equilibrium, each country was allowed a revision of up to 10 percent within a year of the initial selection of the exchange rate. In this basic form the system survived until 1971.

The central place of the U.S. dollar was viewed by John Maynard Keynes as a potential weakness. Keynes preferred an international settlement system based on a new currency unit, the Bancor. However, the idea was rejected, and it was not until the 1960s that the inevitable collapse of the Bretton Woods arrangement was recognized by a Yale economist, Robert Triffin. According to the Triffin Paradox, in order for the stock of world reserves to grow along with world trade, the provider of reserves, the United States, had to run BoP deficits. These deficits were the means by which other countries could accumulate dollar reserves. Although the U.S. deficits were needed, the more they occurred, the more the holders of dollars doubted the ability of the United States to convert dollars into gold at the agreed price. This built-in paradox meant that the system was doomed.

Among the more skeptical holders of dollars was France, which began in 1962 to exchange dollars for gold despite the objection of the United States. Not only were the French doubtful about the future value of the dollar but they also objected to the prominent role of the United States was political, and part was base on the seigniorage gains that France believed accrued to the United States by virtue of the U.S. role as the world's banker. Seigniorage is the profit from "printing" money and depends on the ability to have people hold your currency or other assets at a noncompetitive yield. Every government which issues legal-tender currency can ensure that it is held by its own citizens, even if it offers no yield at all. For example, U.S. citizens will hold Federal Reserve notes and give up goods or services for them, even though the paper the notes are printed on costs very little to provide.

The United States was in a special position because its role as the leading provider of well as U.S. citizens would hold U.S. dollars. However, most reserves of foreign central banks were and are kept in securities such as treasury bills, which yield interest. If the interest that is paid on the reserve assets is a competitive yield, then the seigniorage gains to the United State from foreign holding U.S. dollar assets is small. Indeed, with sufficient competition from

- (1) Alternative reserves of different currencies and
- (2) Alternative dollar investments in the United States, seigniorage gains would be competed away.

Nevertheless, the French continued to convert their dollar holdings into gold. This led other countries to worry about whether the United States would have sufficient gold to support the U.S. dollar the French had finished selling their dollars: under a fractional reserve standard, gold reserves are only a fraction of dollars held. By 1968, the run on gold was of such a scale that a March meeting in Washington, D.C., a two-tier gold-pricing

system was established. While the official U.S. price of gold was to remain at \$35 per ounce, the private-market price of gold was to be allowed to find its own level.

After repeated financial crises, including a devaluation of the pound from \$2.80/£ to \$2.40/£ in 1967, some relief came in 1970 with the allocation of Special Drawing Rights (SDRs). The SDRs are book entries that are credited to the Accounts of IMF member countries according to their established quotas. They can be used to meet payments imbalances, and they provide a net addition to the stock of reserves without the need for any country to run deficits or mine gold. From 1970 to 1972, approximately \$9.4 billion worth of the SDRs (or paper gold) was created, and there was no further allocation until January 1, 1979, when SDR 4 billion was created. Similar amounts were created on January 1, 1980, and on January 1, 1981, bringing the total to over SDR 20 billion. No allocations of SDRs have occurred since 1981. A country can draw on its SDRs as long as it maintains an average of more than 30 percent of its cumulative allocation, and a country is required to accept up to 3 times its total allocation. Interest is paid to those who hold SDRs and by those who draw down their SDRs, with the rate based on an average of money-market interest rates in the United States, the United Kingdom, Germany, Japan, and France.

The SDR was originally set equal in value to the gold content of a U.S. dollar in 1969, which was 0.888571 grams, or 1/35 oz. The value was later revised first being based on a weighted basket of 16 currencies and subsequently being simplified to 5 currencies. The amount of each currency and the U.S. dollar equivalents are the currency basket and the weights are revised every 5 years according to the importance of each country in international trade. The value of the SDR is quoted daily.

Currency	Currency Amount	U.S. \$ Equivalent
Deutschemark	0.4530	0.2659
French Franc	0.0800	0.1324
Japanese Yen	31.8000	0.3150
Pound Sterling	0.0812	0.1189
U.S. Dollar	0.5720	0.5720
		Total \$1.4042 = 1 SDR

If the SDR had arrived earlier, it might have prevented or postponed the collapse of the Bretton Woods system, but by 1971, the fall was imminent. After only two major revisions of exchange rates in the 1950s and 1960s- the floating of the Canadian dollar during the 1950s and the devaluation of sterling in 1967- events suddenly began to unfold rapidly. On August 15, 1971, the United States responded to a huge wall was placed on imports,

and a program of wage and price controls was introduced. Many of the major currencies were allowed to float against the dollar, and by the end of 1971 most had appreciated, with the German mark and the Japanese yen both up 12 percent. The dollar had begun a decade of decline.

On August 15, 1971, the United States made it clear that it was no longer content to support a system based on the U.S. dollar. The costs of being a reserve currency were perceived as having begun to exceed any benefit in terms of seigniorage. The 10 largest countries were called together for a meeting at the Smithsonian Institution in Washington in Washington, D.C. As a result of the Smithsonian Agreement, the United States raised the price of gold to \$38 per ounce (that is, devalued the dollar). Each of the other countries in return revalued its currency by an amount of up to 10 percent. The band around the new official parity values was increased from 1 percent to $2\frac{1}{4}$ on either side, but several European Community countries kept their own exchange rates within a narrow range of each other while jointly allowing the $4\frac{1}{2}$ percent band vis-à-vis the dollar. As we have seen, the “snake,” as the European fixed-exchange-rate system was called, became, with some minor revisions, the Exchange Rate Mechanism (ERM) of the European Monetary System (EMS) in 1979.

The dollar devaluation was insufficient to restore stability to the system. U.S. inflation had become a serious problem. By 1973 the dollar was under heavy selling pressure even at its devalued or depreciated rates, and in February 1973, the price of gold was raised 11 percent, from \$38 to \$42.22 per ounce. By the next month most major currencies were floating. This was the unsteady state of the international financial system as it approached the oil crisis of the fall of 1973.

Exchange Rate Regime 1973-85

In the wake of the collapse of the Bretton Woods exchange rate system, the IMF appointed the Committee of Twenty that suggested for various options for exchange rate arrangement. Those suggestions were approved at Jamaica during February 1976 and were formally incorporated into the text of the Second Amendment to the Articles of Agreement that came into force from April 1978. The options were broadly:

1. Floating-independence and managed
2. Pegging of currency
3. Crawling peg
4. Target-zone arrangement

Floating Rate System

In a floating-rate system, it is the market forces that determine the exchange rate between two currencies. The advocates of the floating-rate system put forth two major arguments. One is that the exchange rate varies automatically according to the changes in the macro-economic variables.

As a result, there does not appear any gap between the real exchange rate and the nominal exchange rate. The country does not need any adjustment that is often required in a fixed-rate regime and so it does not have to bear the cost of adjustment (Friedman, 1953). The other is that this system possesses insulation properties meaning that the currency remains isolated of the shocks emanating from other countries. It also means that the government can adopt an independent economic policy without impinging upon the external sector performance (Friedman, 1953).

However, the empirical studies do not necessarily confirm these views. MacDonald (1988) finds that the exchange rates among the countries on floating rate system during 1973-85 were much more volatile than warranted by changes in fundamental monetary variables. Dunn (1983) finds absence of insulation properties. During early 1980s, when the USA was practicing tight monetary policy through raising interest rates, the European countries raised interest rates so as to prevent large outflow of capital to the USA. Again, since the nominal exchange rate tended to adjust more rapidly than the market price of goods, nominal exchange rate turbulence was closely related to real exchange rate turbulence (Frenkel and Mussa, 1980). Cushman (1983) feels that uncertainty in real exchange rate did affect trade among several industrialized countries. Dunn (1983) gives an example of Canadian firms borrowing long-term funds from the USA that faced heavy losses due to 14 percent real depreciation of Canadian dollar during 1976-79. He also finds that large appreciation in the real value of pound in late 1970s had led to insolvency of many UK firms as their products turned uncompetitive in world market.

Besides, developing countries in particular do not find floating rates suitable for them. Since their economy is not diversified and since their export is subject to frequent changes in demand and supply, they face frequent changes in exchange rates. This is more especially when foreign demand for the products is price-inelastic. When the value of their currency depreciates, export earnings usually sag in view of inelastic demand abroad. Again, greater flexibility in exchange rates between a developed and a developing country generates greater exchange risk in the latter. It is because of low economic profile of the developing countries and also because they have limited access to forward market and to other risk-reducing mechanisms.

Floating rate system may be independent or managed. Theoretically speaking, the system of managed floating involves intervention by the monetary authorities of the country for the purpose of exchange rate stabilization. The process of intervention interferes with market forces and so it is known as “dirty” floating as against independent floating which is known as “clean” floating. However, in practice, intervention is global phenomenon. Keeping this fact in mind, the IMF is of the view that while the purpose of intervention in case of independent floating system is to moderate the rate of change, and to prevent undue fluctuation, in exchange rate; the purpose in managed floating system is to establish a level for the exchange rate.

Intervention is direct as well indirect. When the monetary authorities stabilize exchange rate through changing interest rates, it is indirect intervention. On the other hand, in case of direct intervention, the monetary authorities purchase and sell foreign currency in the domestic market. When they sell foreign currency, its supply increases. The domestic currency appreciates against the foreign currency. When they purchase foreign currency, its demand increases.

The domestic currency tends to depreciate vis-à-vis the foreign currency. The IMF permits such intervention. If intervention is adopted for preventing long-term changes in exchange rate away from equilibrium, it is known as “learning-against-the-wind” intervention. Intervention helps move up or move down the value of domestic currency also through the expectations channel. When the monetary authorities begin supporting the foreign currency, speculators begin buying it forward in the expectation that it will appreciate. Its demand rises and in turn its value appreciates vis-à-vis domestic currency.

Intervention may be stabilizing or destabilizing. Stabilizing intervention helps move the exchange rate towards equilibrium despite intervention. The former causes gains of foreign exchange, while the latter causes loss of foreign exchange. Suppose rupee depreciates from 33 a dollar to 36 a dollar. The Reserve Bank sell US \$ 1000 and rupee improves to 33.

The RBI will be able to replenish the lost reserves through buying dollar at ₹ 33/US \$. The gain will be US \$ $(36000/33-1000)$ or US \$ 91. But after intervention, if rupee falls to 40 a dollar, the loss will be US \$ $(36000/40-1000)$ or US \$ 100. The monetary authorities do not normally go for destabilizing intervention, but it is very difficult to know in advance whether intervention would be really destabilizing. The empirical studies show both the stabilizing and destabilizing intervention. Longworth’s study (1980) finds stabilizing intervention in case of Canadian dollar, while Taylor (1982) finds destabilizing intervention in case of some European countries and Japan during 1970s.

Again, intervention may be sterilized or non-sterilized. When the monetary authorities purchase foreign currency through created money, the money supply in the country increases. It leads to inflation. This is example of non-sterilized intervention, but if simultaneously, securities are sold in the market to mop up the excess supply of money, intervention does not lead to inflation. It takes the form of sterilized intervention. The study of Obstfeld (1983) reveals that non-sterilized intervention is common, for sterilized intervention is not very effective in view of the fact that it does not change very evidently the ratio between the supply of domestic currency and that of the foreign currency. However, on the whole, Loopesko (1984) confirms the effect of the intervention on the exchange rate stabilization. Last but not least, there has also been a case of co-ordinated intervention. As per the Plaza Agreement of 1985, G-5 nations had intervened in the foreign exchange market in order to bring US dollar in consistence with the prevailing economic indicators.

Pegging of Currency

Normally, a developing country pegs its currency to a strong currency or to a currency with which it has a very large part of its trade. Pegging involves fixed exchange rate with the result that the trade payments are stable. But in case of trading with other countries, stability cannot be guaranteed. This is why pegging to a single currency is not advised if the country's trade is diversified. In such cases, pegging to a basket of currency is advised.

But if the basket is very large, multi-currency intervention may prove costly. Pegging to SDR is not different insofar as the value of SDR itself is pegged to a basket of five currencies. Ugo Sacchetti (1979) observes that many countries did not relish pegging to SDR in view of its declining value. Sometimes pegging is a legislative commitment which is often known as the currency board arrangement. Again, it is a fact that the exchange rate is fixed in case of pegging, yet it fluctuates within a narrow margin of at most + 1.0 percent around the central rate. On the contrary, in some countries, the fluctuation band is wider and this arrangement is known as "pegged exchange rates within horizontal bands".

Crawling Peg

Again, a few countries have a system of crawling peg. Under this system, they allow the peg to change gradually over time to catch up with the changes in the market-determined rates. It is a hybrid of fixed-rate and flexible-rate systems. So this system avoids too much of instability and too much of rigidity. Elwards (1983) confirms this advantage in case of a sample of some developing countries. In some of the countries opting for the crawling peg, crawling bands are maintained within which the value of currency is maintained.

Target-Zone Arrangement

In a target-zone arrangement, the intra-zone exchange rates are fixed. An opposite example of such an arrangement is the European Monetary Union (EMU) which was earlier known as the European Monetary System (EMS).

There are cases where the member countries of a currency union do not have their own currency; rather they have a common currency. Under this group, come the member countries of Eastern Caribbean Currency Union, Western African Economic and Monetary Union and Central African Economic and Monetary Community. The member countries of European Monetary Union too will come under this group if Euro substitutes their currency by the year, 2002.

Global Scenario of Exchange Rate Arrangements

The firms engaged in international business must have an idea about the exchange rate arrangement prevailing in different countries as this will facilitate their financial decisions. In this context, it can be said that over a couple of decades, the choice of the member countries has been found shifting from one form of exchange rate arrangement to the other, but, on the whole, the preference for the floating-rate regime is quite evident. At present, as many as 50 of a total of 185 countries are having independent float, while other 27 countries are having managed floating system.

The other 11 countries have crawling peg, while 53 countries have the system of peg of different kinds. The EMU countries have target-zone arrangement where they will have a common currency, Euro by 2002. The other 20 countries of Africa and Caribbean region come under some kind of economic and monetary integration scheme in which they have a common currency. Lastly, seven countries do not have their own currency as a legal tender. We may refer to an IMF publication (IMF, 2001) that provides a broad list of such arrangements among 185 countries.

1985 to Date

The Era of the Managed Float

By March 1985 the dollar had hit its peak. The US current account deficit was at the unheard of level of over USD 100 billion a year. Most economists agreed that the dollar was far above its long-term PPP equilibrium level. The arguments of why this was so ranged from the Dornbusch sticky hypothesis to fiscal irresponsibility to the reassuring argument

that the high exchange rate was a sign of confidence in the US economy. Whatever the reason, it was decided that the dollar had to come down in order to defuse protectionist sentiment in the US Congress that was that was mounting with the mounting trade deficit.

Intervention in the foreign exchange markets was the method to be used to achieve this goal. In September 1985 the Group of Five- the United States, France, Japan, Great Britain and West Germany- came up with the Plaza Agreement, named after the Hotel in New York where they met. This was essentially a coordinated program to force down the value of the dollar against the other major currencies.

The policy worked like a charm. In fact, it worked too well. The dollar fell like a stone, losing close to 11 percent of its SDR value in 1985. The Group of Five reversed field and began to support the dollar in 1986, to no avail. The dollar lost another 10 percent in 1986.

The Group of Five plus Canada and Italy, now called the Group of Seven (G-7) countries to slow the dollar's fall by coordinating their economic policies and supporting the dollar on the exchange markets within some undisclosed target range.

This seemed to work for a while. The United States promised to cut the budget deficit and reduce the rate of growth of the money supply while Japan and Germany promised to stimulate their economies.

Although the US did manage to reduce the rate of growth of the money supply, the budget cuts were not forthcoming, and neither did Germany and Japan come through with their promised stimulatory measures. When worldwide stock markets crashed in October 1987 all pretense of policy coordination collapsed. The flooded the markets with dollars and the dollar fell nearly 10 percent against the SDR in the last quarter of 1987.

Current International Financial System

Where is the international financial system today? The answer to this question revolves around three facts:

- (a) The dollar is still the principal currency used in international transactions but its unchallenged dominance as an economic and financial force: and
- (b) Bretton Woods is dead but its child, the IMF, has evolved with the times and is more important than ever as watchdog and arbiter of balance of payments disequilibrium.

International Monetary Fund (IMF)

One of the most important players in the current international financial system, the IMF was created to administer a code of fair exchange practices and provide compensatory financial assistance to member countries with balance of payments difficulties. The role of the IMF was clearly spelled out in its articles of agreement:

1. To provide international monetary cooperation through a permanent institution that provides the machinery for consultation and collaboration on international monetary problems.
2. To facilitate the expansion and balanced growth of international trade, and to contribute thereby to the promotion and maintenance of high levels of employment and real income and to the development of the productive resources of all members as primary objectives of economic policy.
3. To promote exchange stability, to maintain orderly exchange arrangements among members, and to avoid competitive exchange depreciation.
4. To assist in the establishment of a multilateral system of payments in respect of current transactions between members and in the elimination of foreign exchange restrictions that hamper the growth of world trade.
5. To give confidence to members by making the Fund's resources available to them under adequate safeguards, thus providing them with the opportunity to correct maladjustments in the balances of payments without resorting to measures destructive of national or international balances of payments of members.

When a member entered the IMF, it was obliged to submit a par value of its currency in gold or in US dollars. Once that value was established it could only vary by 1 percent either way and any changes required the permission of the IMF. All transactions with other members were then exercised at that rate.

The resources of the IMF came from the subscriptions for member countries. Subscriptions were determined on the basis of the member's relative economic size, 25 percent of the quota was to be paid in gold and the rest in the member's domestic currency. The size of the quota was important because it determined the member's voting power and the amount it could borrow. In practice, members could borrow up to the first 25 percent of their quota, which was called the "gold tranche" beyond the gold tranche, the IMF imposed conditions.

Although the goals and ground rules for membership are still the same, the IMF has changed considerably since its creation. Its capital has been increased several times. The gold tranche has become the “first credit tranche” and other “upper credit tranches” have been added. In 1969 it created the first SDRs.

The IMF has evolved with the perceived problems of the times. In 1963 it introduced the Compensating Financing Facility to help countries with temporarily inadequate foreign exchange reserves resulting from events such as crop failure. In 1974 it set up the Oil Facility to help oil importing developing countries. It also set up the Extended Fund Facility for countries with structural difficulties, created the Trust Fund of 1976 to allow the sale of gold for the development of third world countries and in the 1980s it negotiated special standby facilities for countries with foreign debt problems.

The IMF’s Exchange Rate Regime Classifications

The International Monetary Fund classifies all exchange rate regimes into eight specific categories (listed here with the number of participating countries as of October 2001). The eight categories span the spectrum of exchange rate regimes from rigidly fixed to independently floating:

- 1. Exchange Agreements with No Separate Legal Tender (39):** The currency of another country circulates as the sole legal tender or the member belongs to a monetary or currency union which the same legal tender is shared by the members of the union.
- 2. Currency Board Arrangement (08):** A monetary regime based on an implicit legislative commitment to exchange domestic currency for a specified foreign currency at a fixed exchange rate, combined with restrictions on the issuing authority to ensure the fulfillment of its legal obligations.
- 3. Other Conventional Fixed Peg Arrangement (44):** The country pegs its currency (for mall or *de facto*) at a fixed rate to a major currency or a basket of currencies (a composite), where the exchange rate fluctuates within a narrow margin or at most + 1 percent around a central rate.
- 4. Pegged Exchange Rates within Horizontal Bonds (6):** The value of the currency is maintained within margins of fluctuation around a formal or *de facto* fixed peg that are wider than + 1 percent around a central rate.
- 5. Crawling Pegs (4):** The currency is adjusted periodically in small amounts at a fixed, pre-announced rate or in response to changes in selective quantitative indicators.

6. **Exchange Rates within Crawling Pegs (5):** The currency is maintained within certain fluctuation margins around a central rate that is adjusted periodically at a fixed pre-announced rate or in response to change in selective quantitative indicators.
7. **Managed Floating with No Pre-Announced Path for the Exchange Rate (33):** The monetary authority influences the movements of the exchange rate through active intervention in the foreign exchange market without specifying or pre-committing to a pre-announced path for the exchange rate.
8. **Independent Floating (47):** The exchange rate is market-determined, with any foreign exchange intervention aimed at moderating the rate of change and preventing undue fluctuations in the exchange rate, rather than at establishing a level for it.

Fixed Vs Flexible Exchange Rates

A nation's choice as to which currency regime to follow reflects national priorities about all factors of the economy, including inflation, unemployment, interest rate levels, trade balances, and economic growth. The choice between fixed and flexible rates may change over time as priorities change.

At the risk of over-generalizing, the following points partly explain why countries pursue certain exchange rate regimes. They are based on the premise that, other things being equal, countries would prefer fixed exchanges rates.

- ▶ Fixed rates provide stability in international prices for the conduct of trade. Stable prices aid in the growth of international trade lessens risks for all businesses.
- ▶ Fixed exchange rates are inherently anti-inflationary, requiring the country to follow restrictive monetary and fiscal policies. This restrictiveness, however, can often be a burden to a country wishing to pursue policies that alleviate continuing internal economic problems, such as high unemployment or slow economic growth.
- ▶ Fixed exchange rate regimes necessitate that central banks maintain large quantities of international reserves (hard currencies and gold) for use in the occasional defense of the fixed rate. An international currency markets have grown rapidly in size and volume, increasing reserve holdings has become a significant burden to many nations.
- ▶ Fixed rates, once in place, can be maintained at rates that are inconsistent with economic fundamentals. As the structure of a nation's economy changes and its trade

relationships and balances evolve, the exchange rate itself should change. Flexible exchange rates allow this to happen gradually and efficiently, but fixed rates must be changed administratively- usually too late, too highly publicized, and too large a one-time cost to the nation's economic health.

Determination of Exchange Rate

The most common type of foreign transaction involves the payment and receipt of the foreign exchange within two business days after the day the transaction is agreed upon. The two-day period gives adequate time for the parties to send instructions to debit and credit the appropriate bank accounts at home and abroad and complete requirements under the forex regulations.

This type of transactions is called a *spot transaction*, and the exchange rate at which the transaction takes place is called the spot rate. Besides spot transaction, there are forward transactions. A forward transaction involves an agreement today to buy or sell a specified amount of a foreign currency at a specified future date at a rate agreed upon today (the forward rate). The typical forward contract is for one month; three months; or six months, with three months being most common. Forward contracts for longer periods are not as common because of the great uncertainties involved. However, forward contract can be renegotiated for one or more periods when they become due.

The equilibrium forward rate is determined at the intersection of the market demand and supply forces of foreign exchange for future delivery. The demand for the supply of forward foreign exchange arises in the course of hedging, from foreign exchange speculation, and from covered interest arbitrage.

Spot Market

Features

In the spot market, currencies are traded for immediate delivery at a rate existing on the day of transaction. For making book-keeping entries, delivery takes two working days after the transaction is complete. If a particular market is closed on Saturday and Sunday and if transaction takes place on Thursday, delivery of currency shall take place on Monday. Monday in this case is known as the value date or settlement date. Sometimes there are short-date contracts where the time zones permit the delivery of the currency even earlier. If the currency is delivered the same day, it is known as the value-same-day contract. If it is done the next day, the contract is known as the value-next-day contract.

In view of the huge amounts involved in the transactions, there is seldom any actual movement of currencies. Rather, debit and credit entries are made in the bank accounts of the seller and the purchaser. Most of the markets do the transfer of funds electronically thus saving time and energy. The system existing in New York is known as the Clearing House Inter-Bank Payment System (CHIPS).

Currency Arbitrage in Spot Market

With fast development in the telecommunication system, rates are expected to be uniform in different foreign exchange markets. Nevertheless, inconsistency exists at times. The arbitrageurs take advantage of the inconsistency and garner profits by buying and selling of currencies. They buy a particular currency at cheaper rate in one market and sell it at a higher rate in the other. This process is known as currency arbitrage. The process influences the demand for, and supply of, the particular currency in the two markets which leads ultimately to removal of inconsistency in the value of currencies in two markets.

Suppose, in New York: \$ 1.9800 – 10/£; and
 In London: \$ 1.9710 – 10/£.

The arbitrageurs will buy the dollar in New York and sell it in London making a profit of \$ 1.9800 – 1.9710 = \$ 0.009 pound sterling.

Speculation in the Spot Market

Speculation in the spot market occurs when the speculator anticipates a change in the value of a currency, especially an appreciation in the value of foreign currency. Suppose the exchange rate today is ₹ 49/US \$, the speculator anticipates this rate to become ₹ 50/US\$ within the coming three months. Under these circumstances, he will buy US \$ 1,000 for ₹ 49,000 and hold the amount for three months, although he is not committed to this particular time horizon. When the target exchange rate is reached, he will sell US \$ 1,000 at the new exchange rate that is at ₹ 50 per dollar and earn a profit of ₹ 50,000 – 49,000 = ₹ 1,000.

Forward Market

The 1- or 2-day delivery period for spot transactions is so short that when comparing spot rates with forward exchange rates we can usefully think of spot rates as exchange rates for undelayed transactions. On the other hand, forward exchange rates involve an arrangement to delay the exchange of currencies until some future date. A useful working definition is:

The **forward exchange rate** is contracted today for the exchange of currencies at a specified date in the future. Forward rates are generally expressed by indicating premium/discount on the spot rate for the forward period.

Premium on one country's currency implies discount on another country's currency. For instance if a currency (say the US dollar) is at a premium vis-à-vis another currency (say the Indian rupee), it obviously implies that the Indian rupee is at a discount vis-à-vis the US dollar.

The forward market is not located at any specified place. Operations take place mostly by telephone/telex, etc., through brokers.

Generally, participants in the market are banks, which want to cover orders for their clients. Though a trader may quote the forward rate for any future date, the normal practice is to quote them for 30 days (1 month), 60 days (2 months), 90 days (3 months) and 180 days (6 months).

Quotations for forward rates can be made in two ways. They can be made in terms of the exact amount of local currency at which the trader quoting the rates will buy and sell a unit of foreign currency. This is called 'outright rate' and traders in quoting to customers use it. The forward rates can also be quoted in terms of points of premium or discount on the spot rate, which used in inter-bank quotations.

To find the outright forward rates when premium or discount on quotes of forward rates are given in terms of points, the points are add to the spot price. If the foreign currency is trading at a forward premium; the points are subtracted from spot price if the foreign currency is trading at a forward discount.

The traders know well whether the quotes in points represent a premium or a discount on the spot rate. This can be determined in a mechanical fashion. If the first forward quote (the bid or buying figure) is smaller than the second forward quote (the offer or the asking or selling figure), then there is a premium.

In such a situation, points are added to the spot rate. Conversely, if the first quote is greater than the second then it is a discount.

If, however, both the figures are the same, then the trader has to specify whether the forward rate is at premium or discount. This procedure ensures that the buy price is lower than the sell price, and trader profits from the spread between the prices.

Example 6.1

	Spot	1-month	3-months	6-months
(FFr/US\$)	5.2321/2340	25/20	40/32	20/26

In outright terms, these quotes would be expressed as below:

Maturity	Bid/Buy	Sell/Offer/Ask	Spread
Spot	FFr 5.2321 Per US\$	FFr 5.2340 Per US\$	0.0019
1-month	FFr 5.2296 Per US\$	FFr 5.2320 Per US\$	0.0024
2-month	FFr 5.2281 Per US\$	FFr 5.2308 Per US\$	0.0027
3-month	FFr 5.2341 Per US\$	FFr 5.2366 Per US\$	0.0025

It may be noted that in the case of forward deals of 1 month and 3 months, US dollar is at discount against French Franc (FF) while 6 months forward is at premium. The first figure is greater than second both 1 month and 3 months forward quotes. Therefore, these quotes are at discount and accordingly these points have been subtracted from the spot rates to arrive at outright rates. The reverse is the case for 6 months forward.

Example

Let us take an example of a quotation for the US dollar against rupees, given by a trader in New Delhi.

Spot	1-month	3-months	6-months
₹ 32.1010-₹ 32.1100	225/275	300/350	375/455
Spread 0.0090	0.0050	0.0050	0.0080

The outright rates from this quotation will be as below:

Maturity	Bid/Buy	Sell/Offer/Ask	Spread
Spot	₹ 32.1010 per US\$	₹ 32.1100 per US\$	0.0090
1-month	₹ 32.1235 per US\$	₹ 32.1375 per US\$	0.0140
2-month	₹ 32.1310 per US\$	₹ 32.1450 per US\$	0.0140
3-month	₹ 32.1385 per US\$	₹ 32.1555 per US\$	0.0170

Here, we notice that the US dollar is at premium for all the three forward periods. Also, it should be noted that the spreads in forward rates are always equal to the sum of the spread of the spot rate and that of the corresponding forward points. For Example, the spread of 1month forward is 0.0140 (=0.0090+0.0050), and, so on.

Major Currencies Quoted in the Forward Market

The major currencies quoted on the forward market are given below. They are generally in terms of the US dollar.

- Deutschmark
- Swiss franc
- Pound sterling
- Belgian franc
- Dutch guilder
- Japanese yen
- Peseta
- Canadian dollar
- Australian dollar

Generally, currencies are quoted in terms of 1 month, 3 months and one year forward. But enterprises may obtain from banks quotations for different periods. Premium or Discount. Premium or discount of a currency in the forward market on the spot rate (SR) is calculated as following:

$$\text{Premium or discount (per cent)} = [(\text{Fwd rate} - \text{Spot rate}) / \text{Spot rate}] \times (12/n) \times 100^*$$

When n is the number of months forward.

If, $FR > SR$, it implies premium.

$<SR$, it signals discount.

Arbitrage in case of Forward Market (or Covered Interest Arbitrage)

In the case of forward market, the arbitrage operates on the differential of interest rates and the premium or discount on exchange rates. The rule is that if the interest rate differential is greater than the premium or discount, place the money in the currency that has higher rate of interest or vice-versa. Consider the following examples:

Example

Exchange rate: Can \$ 1.317 per US \$ (spot)
 Can \$ 1.2950 per US \$ (6 months forward)

6-months interest rate:
 US \$ 10 percent
 Can \$ 6 percent

Work out the possibilities of arbitrage gain.

Solution

In this case, it is clear that US \$ is at discount on 6-months forward market. The rate of annualized discount is:

$$[(1.2950 - 1.317)/1.317] \times (12/6) \times 100 = 3.34 \text{ percent.}$$

$$\text{Differential in the interest rate} = 10 - 6 = 4 \text{ percent.}$$

Here, the interest rate differential is greater than the discount. So in order to derive to an arbitrage gain, money is to be placed in US\$ money market since this currency has a higher rate of interest. The following steps are involved:

- a) Borrow Can\$ 1000 at 6 percent p.a. for 6 months.
- b) Transform this sum into US\$ at the spot rate to obtain US\$ 759.3 (=1000/1.317):
- c) Place these US dollars at 10 percent p.a. for 6-months in the money market to obtain US\$ 797.23 [=759.3 x (1+0.1 x 6/12)]
- d) Sell US\$ 797.23 in the forward market to yield, at the end of 6-months, Canadian \$ 1032.4 (=797.23 x 1.295);
- e) At the end of 6-months, refund the debt taken in Canadian dollars plus interest, i.e. Canadian \$ 1030 [= 1000 x (1 + 0.06 x 6/12)]

$$\text{Net gain} = \text{Canadian } \$ 1032.4 - \text{Canadian } \$ 1030 = \text{Canadian } \$ 2.4.$$

Thus, starting from zero one is richer by Canadian \$ 2.4 at the end of 6 months period. Accordingly, on borrowings of Canadian \$1 million, one will be richer by (100,00,000 x \$2.4/1000), i.e., Canadian \$ 2400.

Example

Exchange rates: Can \$ 0.665 per DM (Spot)
 Can\$0.670 per DM (3 months)
Interest rates: DM 7 percent p.a.
 Can\$ 9 percent p.a.

Calculate the arbitrage possible from the above data.

Solution

In this case, DM is at a premium against the Can\$.

Premium = $[(0.67 - 0.665/0.665) \times (12/3) \times 100 = 3.01$ percent

Interest rate differential = $9 - 7 = 2$ percent.

Since the interest rate differential is smaller than the premium, it will be profitable to place money in Deutsch-marks the currency whose 3-months interest is lower. The following operations are carried out:

- a) Borrow Can\$ 1000 at 9 percent for 3-months;
- b) Change this sum into DM at the spot rate to obtain DM 1503.7 (=1000/0.665);
- c) Place DM 1503.7 in the money market for 3 months to obtain a sum of DM 1530 [=1503.7 x (1+0.07 x 3/12)];
- d) Sell DM at 3-months forward to obtain Can\$ 1025.1 (=1530 x 0.67);
- e) Refund the debt taken in Can\$ with the interest due on it, i.e., Can\$ 1022.5 [=1000 x (1+0.09 x 3/12)];

Net gain = $1025.1 - 1022.5 = \text{Can\$ } 2.6$

Speculation in the Forward Market

Let us say that the US dollar is quoted as follows:

Spot: FFr 5.6 per US\$

6-months forward: FFr 5.65 per US\$

If a speculator anticipates that the US dollar is going to be FFr 5.7 in 6-months, he will take a long position in that currency. He will buy US dollars at FFr 5.65, 6 months forward. If his anticipation turns out to be true, he will sell his US dollars at FFr 5.7 per unit and his profit will be FFr 0.05 per US\$ (=FFr 5.7 – FFr 5.65).

Now, suppose that the speculator anticipates a decrease in the value of the US dollar in next 6-months. He thinks that it will be available for FFr 5.5 per US\$. Then he will take a short position in dollars by selling them at 6-months forward.

If his anticipation comes true, he will make a profit of FFr 0.15 per US\$. On the other hand, if the dollar rate in 6-months actually climbs to FFr 5.75 per US\$, he will end up incurring a loss of FFr 0.1 per US\$ (=FFr 5.65 – FFr 5.75).

The World Bank

The International Bank for Reconstruction and Development (IBRD), better known as the World Bank, was established at the same time as the International Monetary Fund (IMF) to tackle the problem of international investment.

Since the IMF was designed to provide temporary assistance in correcting the balance of payments difficulties, an institution was also needed to assist long-term investment purposes. Thus, IBRD was established for promoting long-term investment loans on reasonable terms.

The World Bank (IBRD) is an inter-governmental institution, corporate in form, whose capital stock is entirely owned by its member-governments. Initially, only nations that were members of the IMF could be members of the World Bank; this restriction on membership was subsequently relaxed.

Functions

The principal functions of the IBRD are set forth in Article 1 of the agreement as follows:

1. To assist in the reconstruction and development of the territories of its members by facilitating the investment of capital for productive purposes.
2. To promote private foreign investment by means of guarantee of participation in loans and other investments made by private investors and when private capital is not available on reasonable terms, to make loans for productive purposes out of its own resources or from funds borrowed by it.

3. To promote the long-term balanced growth of international trade and the maintenance of equilibrium in balances of payments by encouraging international investment for the development of the productive resources of members.
4. To arrange loans made or guaranteed by it in relation to international loans through other channels so that more useful and urgent projects, large and small alike, will be dealt with first. It appears that the World Bank was created to promote and not to replace private foreign investment. The Bank considers its role to be a marginal one, to supplement and assist foreign investment in the member countries.

A little consideration will show that the objectives of the IMF and IBRD are complementary. Both aim at increasing the level of national income and standard of living of the member nations. Both serve as lending institutions, the IMF for short-term and the IBRD for long-term capital. Both aim at promoting the balanced growth of international trade.

Organization

Like the Fund's the Bank's structure is organized on a three-tier basis; a Board of Governors, Executive Directors and a president. The Board of Governors is the supreme governing authority. It consists of one governor (usually the Finance Minister) and one alternate governor (usually the governor of a central bank), appointed for five years by each member.

The Board is required to meet once every year. It reserves to itself the power to decide important matters such as new admissions, changes in the bank's stock of capital, ways and means of distributing the net income, its ultimate liquidation, etc. For all technical purposes, however, the Board delegates its powers to the Executive Directors in the day-to-day administration.

At present, the Executive Directors are 19 in number, of which five are nominated by the five largest shareholders- the U.S.A., the U.K., Germany, France and India. The rest are elected by the other member. The Executive Directors elect the President who becomes their ex-officio Chairman holding office during their pleasure. He is the chief of the operating staff of the Bank and subject to the direction of the Executive Directors on questions of policy and is responsible for the conduct of the ordinary business of the Bank and its organization.

European Monetary System

The Birth of a European Currency: The Euro

The 15 members of the European Union are also members of the European Monetary System (EMS). This group has tried to form an island of fixed exchange rates among themselves in a sea of major floating currencies. Members of the EMS rely heavily on trade with each other, so they perceive that the day-to-day benefits of fixed exchange rates between them are great.

Nevertheless the EMS has undergone a number of major changes since its inception in 1979, including major crises and reorganizations in 1992 and 1993 and conversion of 11 members to the euro on January 1, 1999 (Greece joined in 2001). In December 1991, the members of the European Union met in Maastricht, the Netherlands, and finalized a treaty that changed Europe's currency future.

Timetable

The Maastricht treaty specified a timetable and a plan to replace all individual ECU currencies with a single currency, call euro. Other steps were adopted that would lead to a full European Economic and Monetary Union (EMU).

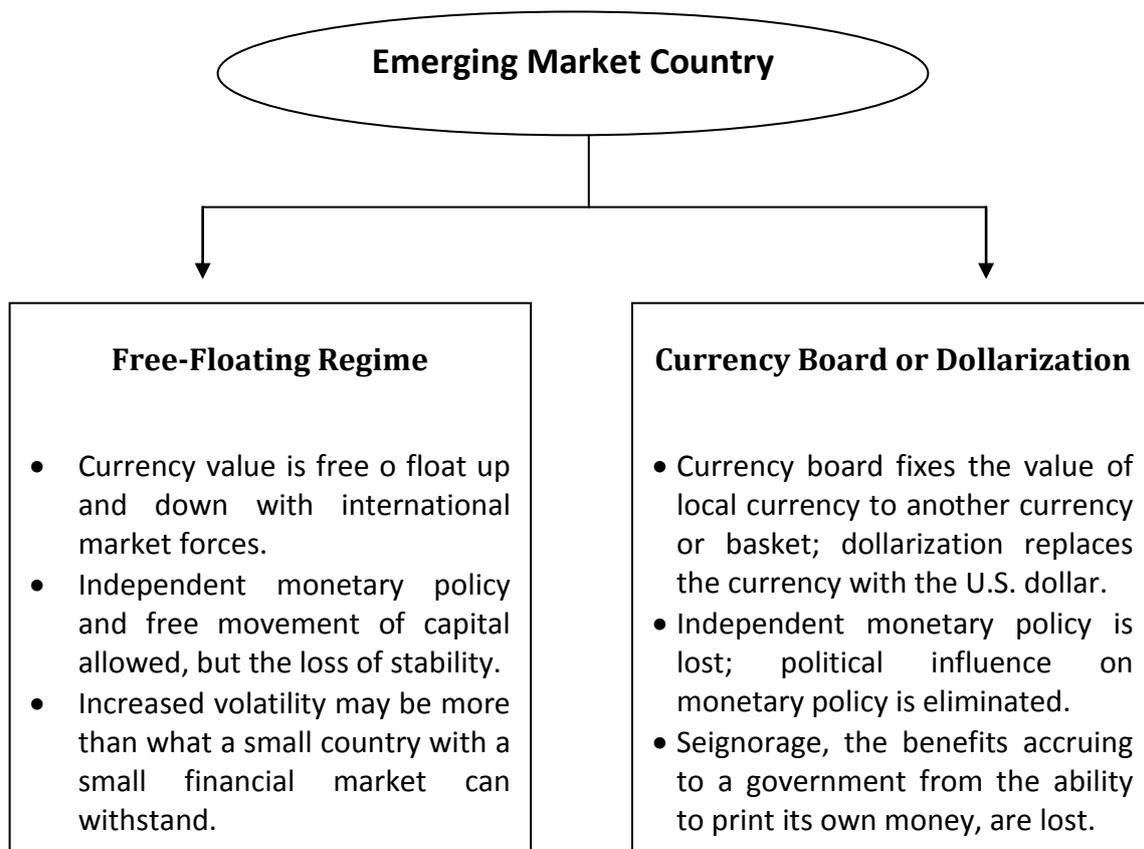
Convergence Criteria

To prepare for the EMU, the Maastricht Treaty called for the integration and coordination of the member countries' monetary and fiscal policies. The EMU would be implemented by a process called convergence.

Before becoming a full member of the EMU, each member country was originally expected to meet the following convergence criteria:

1. Nominal inflation should be no more than 1.5 percent above the average for the three members of the EU with the lowest inflation rates during the previous year.
2. Long-term interest rates should be no more than 2 percent above the average for the three members with the lowest inflation rates.
3. The fiscal deficit should be no more than 3 percent of gross domestic product.
4. Government debt should be no more than 60 percent of gross domestic product.

The Currency Regime Choices for Emerging Markets



Strong Central Bank

A strong central bank, called the European Central Bank (ECB), was established in Frankfurt, Germany, in accordance with the Treaty. The bank is modeled after the U.S. Federal Reserve System.

This independent central bank dominates the countries' central banks, which continue to regulate banks resident within their borders; all financial market intervention and the issuance of euros will remain the sole responsibility of the ECB. The single most important mandate of the ECB is to promote price stability within the European Union.

As part of its development of cross-border monetary policy, the ECB has formed TARGET is the mechanism by which the ECB will settle all cross-border payments in the conduct of EU banking business and regulation. It will the ECB to quickly and costlessly conduct monetary policy and other intra-banking system capital movements.

Monetary System

The Treaty signed at Paris on 18 April 1951 to establish European Coal and Steel Community (ECSC) was the first step towards the unification of Europe. The signatories to this treaty were Belgium, France, Italy, Luxembourg, the Netherlands and then Federal Republic of Germany. The same six countries later signed the Treaty of Rome on 25 March 1957 to create the European Economic Community (EEC). The objective of this treaty was to establish

- (i) A Custom Union, and
- (ii) Free movement of goods, manpower and capital.

In 1972, three other countries, namely, Denmark, Ireland and the UK, also joined, thus taking the strength of the Community to nine. Later, Greece in 1979, and Spain and Portugal in 1986 also joined the Community. At the moment, the European Union has 15 countries as its members after the joining in of Austria, Finland and Sweden.

In 1978, the European Council decided to establish a European Monetary System (EMS). With effect from 1 January 1993, the International European Market has become operational. In 1989, at the Strasbourg Summit, it was decided to convene an inter-governmental conference, whose role would be to revise the treaties relating to the European Community in order to include therein an Economic and Monetary Union (EMU). This Conference has led to the signing of the Maastricht Treaty on 7 February 1992 that aimed, among other things, at the creation of institutions permitting establishment of the EMU. After the Maastricht Treaty, EEC has been renamed as European Union (EU).

Objectives of the European Monetary System

The primary objective of the EMS is to promote and enhance monetary stability in the European Community. Its other objectives include working towards the improvement of the general and economic situation of the countries of the European Union in terms of growth, full employment, standard of living, reduction of regional disparities, etc. Above all, it also aims at bringing about a stabilizing effect on international economic and monetary relations.

EMS vis-à-vis Balance of Payments (BOP)

The formation of EMS has the following implications for countries having surplus balance of payment. First, the countries dealing with member countries of the European

Union may weaken the pace of appreciation of their currencies. This is likely to happen as the relative stability of exchange rates inside the EMS is expected to avoid the distortions between various currencies of the European Union. Second, deceleration in the rate of appreciation of currencies may step up exports of such countries. Increased exports, obviously, have salutary effects on the profitability of enterprise on the one hand and higher growth of their economies on the other. This assertion is based on the fact that the surplus countries faced negative effect of continuing re-evaluation (appreciation) of their currencies, vis-à-vis, and the currencies of the member countries of the European Union (EU). In particular, the effect was more marked on external trade with the EU as it constituted 40-50 percent of their total external business.

In the case of the deficit BOP situation, the EMS stipulates that the country concerned would be required to initiate appropriate economic and monetary policy measures to overcome their BOP problems. The EMS has the provision of providing assistance as well as short-term monetary support for the purpose.

Characteristics of the EMS

The following are the major characteristics of the EMS:

1. There is a single uniform monetary unit of the European Union, namely, the European Currency Unit (ECU);
2. A stable but adjustable exchange rate has emerged.

European Currency Unit (ECU)

The ECU is the central element of the EMS. It is a basket composed of different currencies of the European Union, weighted according to the economic strengths of each one of them.

- (a) Relative weightage of each member country currency with respect to the ECU; the composition of the ECU is shown in the following Table.
- (b) Another important premise is that central banks of parties to the EMS are required to defend the fluctuations in the exchange rates of their currencies. Initially, this range was + 2.25 percent around central parties. Some member countries found it extremely difficult to maintain the fluctuations of their currencies within this range. Therefore, in August 1993, it was raised to 15 percent.

- (c) There is a built-in mechanism to help one another in times of need. Necessary finances for the purpose are to be appropriated from the assets constituted at the level of each central bank.

Composition of the ECU as on 21st September 1989

Currency	Quantity	Weight (Percent)
Deutschmark	0.6242	32.63
French Franc	1.332	19.89
Pound Sterling	0.08784	11.45
Dutch Guilder	0.2198	10.23
Belgian Franc	3.431	08.28
Spanish Peseta	6.885	04.50
Danish Kroner	0.1976	02.56
Irish Pound	0.008552	01.06
Greek Drachma	1.440	0.53
Portuguese Escudo	1.393	0.71
Italian Lira	15.18	8.16

It is apparent from the above Table that economically strong currencies have a very high weightage. For instance, the first three currencies (Deutschmark, French Franc, and Pound) among them account for nearly two-third of the total weightage. It may be noted that the number of countries included in the above Table is eleven. However, with effect from 1st January 1996, the number of countries has gone up to fifteen. The constitution of the ECU should obviously reflect the relative weightage of the economies of all these countries. But, with the coming into effect of the Maastricht Treaty on 1st November 1993, the composition of the ECU has been frozen. It will continue at the frozen level till the adoption of a single currency. This measure is likely to bring about a greater stability of the ECU.

The ECU is a unit of payment among central banks of the European Union. It is also used for according financial assistance to member states which face economic difficulties due to BOP. 'Private ECU' has also found a greater instruments (such as, long-term borrowings and inter-bank commercial paper, Euro-bonds, Euro-credits, etc.), can be documented in ECU. There exist future contracts in ECUs too. In the international capital markets, the ECU occupies an important place. On a commercial plane, some enterprises have adopted it as the currency of billing; the accounts of some multinationals are made in ECUs.

European Bank of Investment (EBI)

The European Bank of Investment was created in 1958 by the Treaty of Rome with the major objective of balanced development of different regions of the European Union. The text of the Maastricht has further reinforced its role to serve the goal of economic and social cohesion. This is the European banking institution to provide long-term financing. It is an integral part of the EU structure and has its own organization of decision-making.

The Board of Governors consisting of one minister of each member state (generally the Finance Minister) gives general orientation and nominates other members of the decision-making body. The board of governors decides about lending, borrowing and interest rates on the proposal of the Managing Committee. This committee is an executive organ of the EBI.

European Monetary Union (EMU)

The Heads of the State and governments of the countries of the EU decided at Maastricht on 9th and 10th December 1991 to put in place the European Monetary Union (EMU). Adhering to the EMU means irrecoverable fixed exchange rates between different currencies of the Union. The setting up of EMU has been a step towards the introduction of a common currency in the member states of EU, as per the Maastricht Treaty. It has ratified by all the 12 countries, which constituted the Union at that point of time. The EMU completes the mechanism that started with the Customs Union of the Treaty of Rome and the big Common Market of the Single Act.

Foreign Exchange Markets

The foreign Exchange Market is the market in which currencies are bought and sold against each other. It is the largest market in the world. In this market where financial paper with a relatively short maturity is traded. However, the financial paper traded in the foreign exchange market is not all denominated in the same currency. In the foreign exchange market, paper denominated in a given currency is always traded against paper denominated in another currency. One justification for the existence of this market is that nations have decided to keep their sovereign right to have and control their own currencies. Unlike the money market and capital markets, the foreign exchange market deals not in credit but in means of payment. This brings one to a fundamental point. While foreign exchange deals frequently take place between residents of different countries, the money being traded never actually leaves the country of the currency.

Thus, when a US company exports to a foreign country of India, for example, foreign exchange is required. The people manufacturing and performing services in the United States must be paid in local currency, US dollars. The people consuming the goods and services in India have only their local currency, Rupees with which to pay. There are now two possibilities for settling the account between the United States and India. The US exporter bills the Indian importer either in US dollars or in Rupees.

- a) If the US exporter bills in dollars, the Indian importer must sell Rupees to purchase dollars in the foreign exchange market.
- b) If the US exporter bills in Rupees, the exporter must sell rupees to purchase dollars.

As one can see, whatever the currency for invoicing is, somebody has to go into the foreign exchange market to sell rupees and purchase dollars. In contrast to a spot transaction, a forward foreign exchange contract calls for delivery at a fixed future date of a specified amount of one currency for specified amount of another currency. By borrowing money in one currency, buying a second currency spot, placing the funds in a deposit in the foreign currency and simultaneously selling the foreign currency forward, an arbitrageur can profit if the domestic interest rate does not equal the foreign interest rate, adjusted for the forward premium or discount. Dealing business across national boundaries means dealing with more than one currency and therefore involves exchange risk. Exchange risk is the additional systematic risk to a firm's flows arising from exchange rate changes.

Players in the Foreign Exchange Market

The main participants in the foreign exchange market are commercial banks. Indeed, one say that it is the commercial banks that "make a market" in foreign exchange. Next in importance are the large Corporations with foreign trade activities. Finally, central banks are present in the foreign exchange market.

(i) Commercial Banks

Commercial banks are normally known as the lending players in the foreign exchange scene, we are speaking of large commercial banks with many clients engaging in exports and imports which must be paid in foreign currencies or of banks which specialize in the financing of trade. Commercial banks participate in the foreign exchange market as an intermediary for their corporate customers who wish to operate in the market and also on their own account. Banks maintain certain inventories of foreign exchange to best service its customers.

(ii) Non-financial Corporations

The involvement of Corporations in the foreign exchange market originates from two primary sources such as International trade and direct investment. International trade usually involves the home country of the corporation. In this regard, the concern of the corporation is not only that foreign currency be paid or received, but also that the transaction be done at the most advantageous price of foreign exchange possible. A business also deals with the foreign exchange market when it engages in foreign direct investment. Foreign direct investments involve not only the acquisition of assets in a foreign country, but also the generation of liabilities in a foreign currency. So, for each currency in which a firm operates, an exposure to foreign exchange risk is likely to be generated. That is, given that a company will have either a net asset or a net liability position in the operations in a given currency, any fluctuation that occurs in the value of that currency will also occur in the value of the company's foreign operations.

(iii) Central Banks

Central Banks are not only responsible for the printing of domestic currency and the management of the money supply, but, in addition, they are often responsible for maintaining the value of the domestic currency vis-a-vis the foreign currencies. This is certainly true in the case of fixed exchange rates. However, even in the systems of floating exchange rates, the central banks have usually felt compelled to intervene in the foreign exchange market at least to maintain orderly markets.

Under the system of freely floating exchange rates, the external value of the currency is determined like the price of any other good in a free market, by the forces of supply and demand. If, as a result of international transactions between the residents and the rest of the world, more domestic currency is offered than is demand, that is, if more foreign currency is demanded than is offered, then the value of the domestic currency in terms of the foreign currencies will tend to decrease. In this model, the role of the central bank should be minimal, unless it has certain preferences i.e. it wishes to protect the local export industry.

International Financial Markets

The financial markets of the world consist of sources of finance, and uses for finance, in a number of different countries. Each of these is a capital market on its own. On the other hand, national capital markets are partially linked and partially segmented. National capital markets are of very different stages of development and size and depth,

they have very different prices and availability of capital. Hence, the international financier has great opportunities for arbitrage – finding the cheapest source of funds, and the highest return, without adding to risk. It is because markets are imperfectly linked, the means and channels by which foreigners enter domestic capital markets and domestic sources or users of funds go abroad, are the essence of this aspect of international financial management.

The other aspect is the fact that domestic claims and liabilities are denominated in national currencies. These must be exchanged for another for capital to flow internationally; since relative values depend on supply and demand, the international financier faces exchange risk. Finally, the past few decades have seen a new phenomenon; the separation of currency of denomination of assets and liabilities from country of jurisdiction.

There are three sets of markets – home, foreign and euro markets – faced by every investor or borrower, plus the fourth market, the foreign currency market, which must be crossed as one enters the world of finance. Each country has more or less imperfect linkages with every other country and with the euro market, both the segment in its own currency and Euro-market segments in other currencies. The linkages of each country with its Euromarkets segment are very important, since domestic and euro markets instrument are close substitutes and no foreign exchange market comes between them. The links among segments of the euro markets are also very important, since no national controls come between them - in other words, linkages within the euro markets are perfect, being differentiated only by currency of denomination. They are linked through the spot and forward foreign exchange markets. International finance is thus concerned with:

(i) Domestic Capital Markets

The international role of a capital market and the regulatory climate that prevails are closely related. Appropriate regulation can and does make markets more attractive. However, the dividing line between regulatory measures that improve markets and those that have just the opposite effect is very thin.

(ii) Foreign Financial Markets

Major chunk of the savings and investments of a country take place in that country's domestic financial markets. However, many financial markets have extensive links abroad – domestic investors purchase foreign securities and invest funds in foreign financial institutions. Conversely, domestic banks can lend to foreign residents and foreign residents can issue securities in the national market or deposit funds with resident financial intermediaries.

The significant aspect of traditional foreign lending and borrowing is that all transactions take place under the rules, usances and institutional arrangements prevailing in the respective national markets. Most important, all these transactions are directly subject to public policy governing foreign transactions in a particular market. For example, when savers, purchase securities in a foreign market, they do so according to the rules, market practices and regulatory precepts that govern such transactions in that particular market. Likewise, foreign borrowers who wish to issue securities in a national market must follow the rules and regulations of that market. Frequently, these rules are discriminatory and restrictive. The same is true with respect to financial intermediaries; the borrower who approaches a foreign financial institution for a loan obtains funds at rates and conditions imposed by the financial institutions of the foreign country and are directly affected to foreign residents.

(iii) Euromarkets and their Linkages

Euro currencies – which are neither currencies nor are they necessarily connected with Europe – represent the separation of currency of denomination from the country of jurisdiction. Banks and clients make this separation simply by locating the market for credit denominated in a particular currency outside the country where that currency is legal tender.

For example, markets for dollar denominated loans, deposits and securities in jurisdictions other than in the United States effectively avoid US banking and securities regulations. These markets are referred to as “Euro” or, more properly, as external markets in order to indicate that they are not part of the domestic or national financial system. As in the domestic markets, the euromarkets consist of intermediated funds and direct funds. Intermediated credit in channel through banks is called the “Euro Currency Market”.

A domestic market, usually with special and unique aspects and institutions stemming from historical and regulatory differences. A foreign segment attached to the national market, where non-residents participate as supplier and takers of funds, frequently playing both roles simultaneously, but always under the specific conditions, rules and regulations established for foreign participants in a particular national market. An external segment that is characterized by being in a different political jurisdiction, with only the currency used to determine the financial claims being the essential link to the national market. As a result, the various external markets have more features in common with each other than with the respective national markets. Therefore, they are properly discussed as a common, integrated market where claims denominated in different currencies are exchanged.

Summary

The development in the international monetary system dates back to the commodity specie standard when metallic coins were used for international transaction. This was followed by gold standard that provided not only domestic price stability but also automatic adjustment in the exchange rate and the balance of payments. The gold standard failed to cope with the changes in international economic scenario and it was finally abandoned in 1930s. Its abandonment led to large fluctuations in exchange rates. And so a new system of exchange rate evolved under the aegis of the “Bretton Woods” child”, International Monetary Fund in 1945. The system represented a fixed parity system with adjustable pegs. The currency of the member countries was convertible in US dollar and the US dollar was convertible into gold. And so when the US economy turned into distress in late 1950s, dollar failed to command confidence. Dollar-denominated securities were converted into gold depleting in turn the stock of gold with the USA. The process weakened the dollar further and ultimately, the Bretton Woods system exchange rate crumbled in early 1973. In the post-1973 or the present system, various options are given to the member countries such as independent and managed floating rate system, system of pegging of currency, crawling peg and target-zone arrangement. The different systems have no doubt merits of their own, but they suffer from one limitation or the other.

The exchange rates are quoted in different forms, viz., direct and indirect quote, buying and selling quote, spot and forward quote. Cross rates between two currencies are established through a common currency. They are found when the rates between any two currencies are not published. During several years (1987 to 1992) the countries belonging to the EMS had achieved, to a marked extent, stability of real exchange rates through several adjustment had to be made. The crisis of September 1992, brought about by the fall of US dollar, led to profound changes. The EMU goes largely beyond the framework of internal common market since it will also have repercussions on social plane. Once the ECU is adopted as common currency it may become a pilot currency and other European or non-European currencies may be pegged to it.

Keywords

Balance of Payment Deficits: In a situation of worsening balance of payments, the government may like to conserve foreign exchange through payment restrictions or otherwise.

Euro Currency Market: Collection of banks that accept deposits and provide loans in large denominations and in a variety of currencies.

Foreign Exchange Market: Market composed primarily of banks, serving firms and consumers who wish to buy or sell various currencies.

Develop Bilateralism: Exchange control may be with a view to encourage trade with a particular country or group of countries.

Domestic market: A domestic market, usually with special and unique aspects and institutions stemming from historical and regulatory differences.

Exchange Intervention: Exchange intervention or official intervention refers to the buying and selling of foreign exchange in the market by the government or its agency (central bank) with a view to influencing the exchange rate.

External segment: An external segment that is characterized by being in a different political jurisdiction, with only the currency used to denominate the financial claims being the essential link to the national market.

Foreign segment: A foreign segment attached to the national markets, where non-residents participate as suppliers and takers of funds, frequently playing both roles simultaneously, but always under the specific conditions, rules and regulations established for foreign participants in a particular national market.

Self Assessment Questions

1. Discuss in brief about the concept of International Monetary and Financial System
2. Explain the importance of International Finance
3. Explain in detail about the Bretton Woods and International Monetary Fund system.
4. What is Role of IMF?
5. What is IBRD ? and give its important role in the International Financial system.
6. What is the scope for European Monetary System?

UNIT - II

Balance of Payments

Learning Objectives

After reading this lesson, you can be able to,

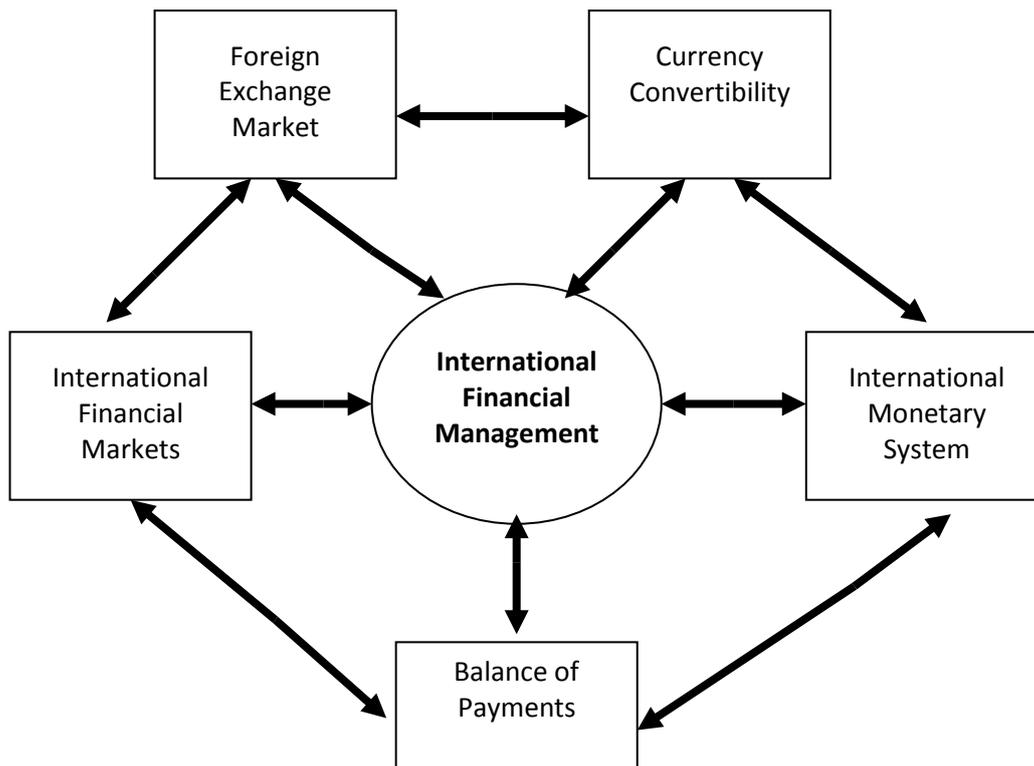
- Know the Environment of International Business Finance
- Discuss BOPs Accounting Principles.
- List out the Components of BOPs.
- Discuss the Components of Current Account.
- Know and discuss the Components of Capital Account.
- List the ways of managing current account deficit.
- Give the importance of BOP

Introduction to Environment of International Business Finance

International business finance refers to the functions of an international business. Specially, international business finance deals with the investment decision, financing decision, and money management decision.

Before going to discuss balance of payments (BOPs) it is better to have brief knowledge on international financial management, because balance of payment is a factors that affects international business.

International financial environment is totally different from domestic financial environment. That international financial management is subject to several external forces, like foreign exchange market, currency convertibility, international monetary system, balance of payments, and international financial markets (see Fig).



Environment of International Financial Management

Foreign Exchange Market

Foreign exchange market is the market in which money denominated in one currency is bought and sold with money denominated in another currency. It is an over-the counter market, because there is no single physical or electronic market place or an organized exchange with a central trade clearing mechanism where traders meet and exchange currencies. It spans the globe, with prices moving and currencies trading somewhere every hour of every business day. World major trading starts each morning in Sydney and Tokyo, and ends up in the San Francisco and Los Angeles.

The foreign exchange market consists of two tiers: the inter bank market or wholesale market, and retail market or client market. The participants in the wholesale market are commercial banks, investment banks, corporations and central banks, and brokers who trade on their own account. On the other hand, the retail market comprises of travelers, and tourists who exchange one currency for another in the form of currency notes or traveler cheques.

Currency Convertibility

Foreign exchange market assumes that currencies of various countries are freely convertible into other currencies. But this assumption is not true, because many countries

restrict the residents and non-residents to convert the local currency into foreign currency, which makes international business more difficult. Many international business firms use “counter trade” practices to overcome the problem that arises due to currency convertibility restrictions.

International Monetary System

Any country needs to have its own monetary system and an authority to maintain order in the system, and facilitate trade and investment. India has its own monetary policy, and the Reserve Bank of India (RBI) administers it. The same is the case with world, its needs a monetary system to promote trade and investment across the countries. International monetary system exists since 1944. The International Monetary Fund (IMF) and the World Bank have been maintaining order in the international monetary system and general economic development respectively.

International Financial Markets

International financial market born in mid-fifties and gradually grown in size and scope. International financial markets comprises of international banks, Eurocurrency market, Eurobond market, and international stock market. International banks play a crucial role in financing international business by acting as both commercial banks and investment banks. Most international banking is undertaken through reciprocal correspondent relationships between banks located in different countries. But now days large bank have internationalized their operations they have their own overseas operations so as to improve their ability to compete internationally. Eurocurrency market originally called as Eurodollar market, which helps to deposit surplus cash efficiently and conveniently, and it helps to raise short-term bank loans to finance corporate working capital needs, including imports and exports.

Eurobond market helps to MNCs to raise long-term debt by issuing bonds. International bonds are typically classified as either foreign bonds or euro bonds. A foreign bond is issued by a borrower foreign to the country where the bond is placed. On the other hand Eurobonds are sold in countries other than the country represented by the currency denominating them.

Balance of Payments

International trade and other international transactions result in a flow of funds between countries. All transactions relating to the flow of goods, services and funds across national boundaries are recorded in the balance of payments of the countries concerned.

Balance of Payments – Meaning and Definition

Balance of payments (BoPs) is systematic statement that systematically summarizes, for a specified period of time, the monetary transactions of an economy with the rest of the world. Put in simple words, the balance of payments of a country is a systematic record of all transactions between the ‘residents’ of a country and the rest of the world. The balance of payments includes both visible and invisible transactions. It presents a classified record of:

- i. All receipts on account of goods exported, services rendered and capital received by ‘residents’ and
- ii. Payments made by them on account of goods imported and services received from the capital transferred to ‘non-residents’ or ‘foreigners’.

Thus the transactions include the exports and imports (by individuals, firms and government agencies) of goods and services, income flows, capital flows and gifts and similar one-sided transfer of payments. A rule of thumb that aids in understanding the BOP is to “follow the cash flow”. Balance of payments for a country is the sum of the Current Account, the Capital Account, and the change in Official Reserves.

Concepts Used in Balance of Payments

Before going into in detail discussion of balance of payments reader has to be familiar with the following concepts:

- a. **Economic Transactions:** Economic transactions for the most part between residents and non-residents, consist of those involving goods, services, and income; those involving financial claims on, and liabilities to the rest of the world; and those (such as gifts), classified as transfers. A *transaction* itself is defined as an economic flow that reflects the creation, transformation, exchange, transfer, or extinction of economic value and involves changes in ownership of goods and / or financial assets, the provision of services, or the provision of labor and capital.
- b. **Double Entry System:** Double entry system is the basic accounting concept applied in constructing a balance of payments statement. That is every transaction is recorded based on accounting principle. One of these entries is a credit and the other entry is debit. In principle, the sum of all credit entries is identical to the sum of all debit entries, and the net balance of all entries in the statement is zero. Exports decreases in foreign financial assets (or increases in foreign financial liabilities) are

recorded as credits, while imports increases in foreign financial assets (or decreases in foreign financial liabilities) are recorded as debits. In other words, with regard to assets, whether real or financial, decreases in holdings are recorded as credits, while increases in holdings are recorded as debits. On the other hand, increases in liabilities are recorded as credits, while decreases in liabilities are recorded as debits.

- c. **Concept of Residence:** Concept of residence is very important attribute of an institutional unit in the balance of payments because the identification of transactions between residents and non-residents underpins the system. The concept of residence is based on sectoral transactor's *center of economic interest*. An institutional unit has a center of economic interest and is a resident unit of a country when from some location, dwelling, place of production, or other premises within the economic territory of country, the unit engages and intends to continue engaging, either indefinitely or over a finite period usually a year, in economic activities and transactions on a significant scale. The one-year period is suggested only as a guideline and not as an inflexible rule.
- d. **Time of Recording:** The IMF Balance of Payments Statistics contains over 100,000 quarterly and annual time series data. When the data are available, the annual entries generally begin in 1967 and quarterly entries begin in 1970. The period for which data are available varies from country to country, but most countries' data extend from the mid-1970s to the present. Data in international investment positions available for selected countries from 1981 onwards.

In balance of payments the principle of *accrual accounting* governs the time of recording of transactions. Therefore, transactions are recorded when economic value is created, transformed, exchanged, transferred, or extinguished. Claims and liabilities arise when there is a change in ownership. Put in simple words, balance of payments is usually prepared for a year but may be divided into quarters as well.

BOPs and Accounting Principles

Three main elements of actual process of measuring international economic activity are:

1. Identifying what is/is not an international economic transaction,
2. Understanding how the flow of goods, services, assets, money create debits and credits
3. Understanding the bookkeeping procedures for BOP accounting

Each transaction is recorded in accordance with the principles of double-entry book keeping, meaning that the amount involved is entered on each of the two sides of the balance-of-payments accounts. For every transaction there must be two entries, one is credit, and the other one is debit. Consequently, the sums of the two sides of the complete balance-of-payments accounts should always be the same, and in this sense the balance of payments always balances. In practice, the figures rarely balance to the point where they cancel each other out. This is the result of errors or omissions in the compilation of statements. A separate balancing item is used to offset the credit or debit.

However, there is no book-keeping requirement that the sums of the two sides of a selected number of balance-of-payments accounts should be the same, and it happens that the (im) balances shown by certain combinations of accounts are of considerable interest to analysts and government officials. It is these balances that are often referred to as “surpluses” or “deficits” in the balance of payments.

The following some simple rules of thumb help to the reader to understand the application of accounting principles for BoPs.

1. Any individual or corporate transaction that leads to increase in demand for foreign currency (exchange) is to be recorded as debit, because if is cash outflow, while a transaction which results in increase the supply of foreign currency (exchange) is to be recorded as a credit entry.
2. All transactions, which result an immediate or prospective payment from the rest of the world (RoW) to the country should be recorded as credit entry. On the other hand, the transactions, which result in an actual or prospective payment from the country to the ROW should be recorded as debits.

Balance of Payments Credit and Debit

Credit	Debit
1. Exports of goods and services	1. Imports of goods and services
2. Income receivable from abroad	2. Income payable to abroad
3. Transfers from abroad	3. Transfers to abroad
4. Increases in external liabilities	4. Decreases in external liabilities
5. Decreases in external assets	5. Increases in external assets

Thus balance of payments credits denote a reduction in foreign assets or an increase in foreign liabilities, while debits denote an increase in foreign assets or a reduction of foreign liabilities. The same is summarized in Table.

Valuation of Goods and Services

Just knowing the accounting principles in balance of payments is not enough for arriving actual balance of payments of different countries, it is necessary to know the basis for valuing the goods and services and their recording time in accounts.

Use of common valuation base for valuation of goods and services is very important for meaningful comparison of balance of payments data between countries that are exporting and importing. At the same time comparison of balance of payment of data among member countries of IMF is also possible only when the goods and services are valued on the basis on common price. The IMF recommends the use of “Market prices” as base, because this being the price paid by or accepted to pay “willing buyer” to a “willing seller”, where the seller and buyer are independent parties and buying and selling transactions are governed only by commercial considerations. Following the principle may not be possible in all the transactions. In other words, there are some cases or transactions, which are necessary to use some other base for valuing goods and services. There are two choices of valuation basis available generally for export and import of goods and services, they are: one f.o.b (free on board) and the other c.i.f (cost insurance freight). IMF recommends the f.o.b for valuation of goods and services, because the c.i.f base includes value of transportation and insurance in the value of the goods. In India’s balance of payments statistics, exports are valued on f.o.b basis, while imports are valued at c.i.f basis (see Table). Another problem of valuation arises when foreign currency is translated into domestic currency. It would be meaningful when the translation takes place on the basis of exchange rate prevailing at the time of translation. But in practice, transactions that occurred in a particular month are translated on the basis of average exchange rate for the month.

Valuation Time of Exports and Imports of Goods and Services

Since the balance of payment statistics are prepared on quarterly basis and they translated into domestic currency on monthly average foreign exchange rate base, the timing of recording time is very important. Here timing means recording one transaction in two different countries records should be the same time. For example India’s exported software to US for ₹ 500 crores on 28th October 22, 2006, then the transaction should be recorded by giving the date 28th October, 2006, in both (India and US) countries’ records, and not 28th October, 2006 in India’s records and 1st or some other date in the US records. Put in simple words, the two side of transaction should be recorded in the same time period. But there are various principles have been evolved for deciding the time. For example, exports are recorded when they are cleared by customs, and imports are recorded when the payment is made.

Components of the Balance of Payments

Balance of payments statistics must be arranged within a coherent structure to facilitate their utilization and adaptation for multiple purposes (policy formation, analytical studies, projections, bilateral comparisons of particular components or total transactions, regional and global aggregations, etc.). The IMF requires member countries (all 197 member countries) to provide information on their BOP statistics in accordance with the provisions of Article 8 Paragraph 5 of the *IMF Agreement*. The basic principles are given in the *Balance of Payments Manual, fifth edition (BPM5)* issued by the IMF in the year 1993. The *BPM5* establishes the standard international rules for the compilation of BOP statistics and provides guidelines on the reporting format to the IMF, which was decided on the objectives of large number of users after comprehensive discussions and feedbacks of member countries. The balance of payment is a collection of accounts conventionally grouped into three main categories. In other words, within the balance of payments there are three separate categories under which different transactions are categorized. They are:

1. **The Current Account:** It records a nation's total exports of goods, services and transfers, and its total imports of them
2. **The Capital Account:** It records all public and private investment and lending activities.
3. **The Official Reserve Account:** It measures the changes in holdings of gold and foreign currencies (reserve assets) by official monetary institutions.

The difference in above 1 and 2 is termed as 'basic balance'. The RBI refers to it as overall balance. The IMF introduced the notion of overall balance in, which all transactions other than those involving reserve assets were to be "above the line". However, depending on the context and purpose for which the balance is used, several concepts of balance have developed. They are trade balance (BOT), balance of invisibles (BOIs), current account balance, balance on current account and long-term capital.

The following discussion provides detailed discussion of all the three components of balance of payments.

A. The Current Account

As we have read in the above that current account records all flows of goods, services, and transfers. The structure of current account in India's balance of payments is depicted in Table.

Components of Current Account: The current account is subdivided into two components

- (1) Balance of trade (BoT), and
- (2) Balance of invisibles (BOIs)

1. Balance of Trade (BoT)

Balance of payments refers the difference between merchandise exports and merchandise imports of a country. BOT is also known as “general merchandise”, which covers transactions of movable goods with changes of ownership between residents and nonresidents. So, balance of trade deals with the export and import of merchandise, except ships, airline stores, and so on. Purchased by non-resident transport operators in the given country and similar goods purchased overseas by that country’s operators, purchases of foreign travelers, purchases by domestic missions.

The data of exports and imports are obtained from trade statistics and reports on payments/receipts submitted by individuals and enterprises. The valuation for exports should be in the form of f.o.b (free on board) basis and imports are valued on the basis of c.i.f (cost, insurance and freight). Exports, are credit entries. The data for these items are obtained from the various forms of exporters, which would be filled by exporter and submitted to designate authorities. While imports are debit entries. The excess of exports over imports denotes favorable (surplus) balance of trade, while the excess of imports over exports denotes adverse (deficit) balance of trade.

The balance of the current account tells us if a country has a deficit or a surplus. If there is a deficit, does that mean the economy is weak? Does a surplus automatically mean that the economy is strong? Not necessarily. But to understand the significance of this part of the BOP, we should start by looking at the components of the current account: goods, services, and income and current transfers.

Structure of Current Account in India’s BOP Statement

Particulars	Debit	Credit	Net
A. Current Account			
I. Merchandise (BOT): Trade Balance (A-B)			
A. Exports, f.o.b.			
B. Imports, c.i.f.			

<p>II. Invisibles (BOI): (a + b + c)</p> <p>a. Services</p> <p>i. Travel</p> <p>ii. Transportation</p> <p>iii. Insurance</p> <p>iv. Govt. not elsewhere classified</p> <p>v. Miscellaneous</p> <p>b. Transfers</p> <p>i. Official</p> <p>ii. Private</p> <p>c. Income</p> <p>i. Investment Income</p> <p>ii. Compensation to employees</p>			
<p>Total Current Account = I + II</p>			

A. Goods

These are movable and physical in nature, and in order for a transaction to be recorded under “goods”, a change of ownership from/to a resident (of the local country) to/ from a non-resident (in a foreign country) has to take place. Movable goods include general merchandise, goods used for processing other goods, and non-monetary gold. An export is marked as a credit (money coming in) and an import is noted as a debit (money going out).

B. Services

Service trade is export / import of services; common services are financial services provided by banks to foreign investors, construction services and tourism services. These transactions result from an intangible action such as transportation, business services, tourism, royalties or licensing. If money is being paid for a service it is recorded like an import (a debit), and if money is received it is recorded like an export (credit).

C. Current Transfers

Financial settlements associated with change in ownership of real resources or financial items. Any transfer between countries, which is one-way, workers’ remittances, donations, a gift or a grant, official assistance and pensions are termed a current transfer. Current transfers are unilateral transfers with nothing received in return. Due to their nature, current transfers are not considered real resources that affect economic production.

D. Income

Predominately **current income** associated with investments, which were made in previous periods. Additionally the wages & salaries paid to non-resident workers. In other words, income is money going in (credit) or out (debit) of a country from salaries, portfolio investments (in the form of dividends, for example), direct investments or any other type of investment. Together, goods, services and income provide an economy with fuel to function. This means that items under these categories are actual resources that are transferred to and from a country for economic production.

2. Balance of Invisibles (BoI)

These transactions result from an intangible action such as transportation, business services, tourism, royalties on patents or trade marks held abroad, insurance, banking, and unilateral services.

All the cash receipts received by the resident from non-resident are credited under invisibles. The receipts include income received for the services provided by residents to non-residents, income (interest, dividend) earned by residents on their foreign financial investments, income earned by the residents by way of giving permission to use patents, and copyrights that are owned by them and offset entries to the cash and gifts received in-kind by residents from non-residents. On the other hand debits of invisible items consists of same items when the resident pays to the non-resident. Put in simple debit items consists of the same with the roles of residents and non-residents reversed.

The sum of the net balance between the credit and debit entries under the both heads Merchandise, and invisibles is Current Account Balance (CAB). Symbolically: $CAB = BOT + BOI$

It is surplus when the credits are higher than the debits, and it is deficit when the credits are less than debits.

Use of Current Account

Theoretically, the balance should be zero, but in the real world this is improbable. The current account may have a *deficit* or a *surplus balance*, that indicates about the state of the economy, both on its own and in comparison to other world markets.

A country's current accounts credit balance (*surplus*) indicates that the country (economy) is a net creditor to the rest of the countries with which it has dealt. It also shows

that how much a country is saving as opposed to investing. It indicates that the country is providing an abundance of resources to other economies, and is owed money in return. By providing these resources abroad, a country with a current account balance surplus gives receiving economies the chance to increase their productivity while running a deficit. This is referred to as financing a deficit.

On the other hand a country's current account debit (deficit) balance reflects an economy that is a net debtor to the rest of the world. It is investing more than it is saving and is using resources from other economies to meet its domestic consumption and investment requirements. For example, let us say an economy decides that it needs to invest for the future (to receive investment income in the long run), so instead of saving, it sends the money abroad into an investment project. This would be marked as a debit in the financial account of the balance of payments at that period of time, but when future returns are made, they would be entered as investment income (a credit) in the current account under the income section.

A current account deficit is usually accompanied by depletion in foreign-exchange assets because those reserves would be used for investment abroad. The deficit could also signify increased foreign investment in the local market, in which case the local economy is liable to pay the foreign economy investment income in the future. It is important to understand from where a deficit or a surplus is stemming because sometimes looking at the current account, as a whole could be misleading.

B. The Capital Account

Capital account records public and private investment, and lending activities. It is the *net change in foreign ownership of domestic assets*. If foreign ownership of domestic assets has increased more quickly than domestic ownership of foreign assets in a given year, then the domestic country has a capital account surplus. On the other hand, if domestic ownership of foreign assets has increased more quickly than foreign ownership of domestic assets in a given year, then the domestic country has a capital account deficit. It is known as "financial account". IMF manual lists out a large number of items under the capital account. But India, and many other countries, has merged the accounting classification to fit into its own institutional structure and analytical needs. Until the end of the 1980s, key sectors listed out under the capital account were:

- (i) Private capital,
- (ii) Banking capital, and
- (iii) Official capital.

Private capital was sub-divided into (i) long-term and (ii) short-term, with loans of original maturity of one year or less constituting the relevant dividing line. Long-term private capital, as published in the regular BOP data, covered foreign investments (both direct and portfolio), long-term loans, foreign currency deposits (FCNR and NRE) and an estimated portion of the unclassified receipts allocated to capital account. Banking capital essentially covered movements in the external financial assets and liabilities of commercial and co-operative banks authorized to deal in foreign exchange. Official capital transactions, other than those with the IMF and movements in RBI's holdings of foreign currency assets and monetary gold (SDRs are held by the government), were classified into (i) loans, (ii) amortization, and (iii) miscellaneous receipts and payments. The structure of capital account in India's balance of payments is shown in Table.

Components of Capital Account

From 1990-91 onwards, the classification adopted is as follows:

- i. **Foreign Investment*** – Foreign investment is bifurcated into Foreign Direct Investment (FDI) and portfolio investment. Direct investment is the act of purchasing an asset and at the same time acquiring control on it. The FDI in India could be in the form of inflow of investment (credit) and outflow in the form of disinvestments (debit) or abroad in the reverse manner. Portfolio investment is the acquisition of an asset, without control over it. Portfolio investment comes in the form of Foreign Institutional Investors (FIIs), offshore funds and Global Depository Receipts (GDRs) and American Depository Receipts (ADRs). Acquisition of shares (acquisition of shares of Indian companies by non-residents under section 5 of FEMA, 1999) has been included as part of foreign direct investment since January 1996.
- ii. **Loans*** – Loans are further classified into external assistance, medium and long-term commercial borrowings and short-term borrowings, with loans of original maturity of one-year or less constituting the relevant dividing line. The principal repayment of the defense debt to the General Currency Area (GCA) is shown under the debit to loans (external commercial borrowing to India) for the general currency area since 1990-91.
- iii. **Banking Capital*** – Banking capital comprises external assets and liabilities of commercial and government banks authorized to deal in foreign exchange, and movement in balance of foreign central banks and international institutions like, World Bank, IDA, ADB and IFC maintained with RBI. Non-resident (NRI) deposits are an important component of banking capital.

- iv. **Rupee Debt Service** – Rupee debt service contains interest payment on, and principal re-payment of debt for the erstwhile rupee payments area (RPA). This is done based on the recommendation of high-level committee on balance of payments.
- v. **Other Capital** – Other capital is a residual item and broadly includes delayed exports receipts, funds raised and held abroad by Indian corporate, India’s subscriptions to international institutions and quota payments to IMF. A delayed export receipt essentially arises from the leads and lags between the physical shipment of goods recorded by the customs and receipt of funds through banking channel. It also includes rupee value of gold acquisition by the RBI (monetization of gold).
- vi. **Movement in Reserves** – Movement in reserves comprises changes in the foreign currency assets held by the RBI and SDR balances held by the government of India. These are recorded after excluding changes on account of valuation. Valuation changes arise because foreign currency assets are expressed in terms US dollar and they include the effect of appreciation/depreciation of non-US currencies (such as Euro, Sterling, Yen and others) held in reserves. Furthermore, this item does not include reserve position with IMF.

Structure of Capital Account in India’s BOP Statement

Particulars	Debit	Credit	Net
B. Capital Account			
1. Foreign Investment (a + b)			
a. In India			
i. Direct			
ii. Portfolio			
b. Abroad			
2. Loans (a + b + c)			
a. External Assistance			
i. By India			
ii. To India			
b. Commercial Borrowings			
i. By India			
ii. To India			
c. Short-term			
i. To India			

3. Banking Capital (a + b) a. Commercial Banks i. Assets ii. Liabilities iii. Non-resident deposits b. Others 4. Rupee Debt Service 5. Other Capital			
Total Capital Account = 1 + 2 + 3 + 4 + 5			

The above discussion details that capital account transactions of financial assets and liabilities between residents and nonresidents, and comprises the sub-components: direct investment, portfolio investment, financial derivatives, and other investment.

As per the earlier classification, institutional character of the Indian creditor/debtor formed the dividing line for capital account transaction, whereas now it is the functional nature of the capital transaction that dominates the classification.

C. Errors and Omissions Account

As you have read in BOP and accounting principles that there are number and variety of transactions that occur in a period for which the balance of accounts is prepared and all these transactions are recorded as per double-entry accounting system. In principle, therefore, the net sum of all credit and debit entries should equal. In practice, however, this does not happen since errors and omissions occur in compiling the individual components of the balance of payments. The net effect of these errors and omissions (including differences in coverage, timing and valuation), are entered as unrecorded transactions. So, errors and omissions account is used to account for statistical errors and / or untraceable monies within a country. In practice, therefore, the unrecorded transactions, which pertain to the current, capital transfer and financial accounts, serve to ensure that the overall balance of payments actually balances.

Table details of the errors and omissions, overall balance and monetary movement.

D. Overall Balance

Overall balance is equal to the sum of total current account, capital account, errors & omissions.

E. Monetary Movements

The last element of the balance of payments is the official reserves account. A country's *official reserve* consists of gold and foreign exchange (reserve assets) by official monetary institutions, special drawing rights (SDRs) issued by the International Monetary Fund (IMF), and allocated from time to time to member countries. It can be used for settling international payments between monetary authorities of the member countries, but within certain limitations. An allocation is a credit, where as retirement is a debit.

Errors and Omissions, Overall Balance, and Monetary Movement

Particulars	Debit	Credit	Net
C. Errors And Omissions			
D. Overall Balance = Total Current Accounts, Capital Account, and Errors & Omissions			
E. Monetary Movement			
a. IMF Transactions			
i. Purchases			
ii. Repurchases			
iii. Net (i-ii)			
b. Foreign Exchange Reserves (Increase-/Decrease +)			

The foreign exchange reserves are held in the form of gold, foreign bank notes, demand deposits with foreign banks and other claims on foreign countries, which can readily be converted into foreign bank demand deposits. A change in official reserve account measures a country's surplus or deficit on its current account and capital account transactions by netting reserve liabilities from reserve assets.

Balance Payments Identity

It is the sum of the Current Account plus the Capital Account plus Change in Official Reserve Account (see Table).

$$\mathbf{BOPs} = \text{Current Account} + \text{Capital Account} + \text{Change in Official Reserve Account.}$$

Overall Structure of Components of BOPs

Particulars	Debit	Credit	Net
<p>A. Current Account</p> <p>I. Merchandise (BOT): Trade Balance (a - b)</p> <p style="margin-left: 20px;">a. Exports, f.o.b</p> <p style="margin-left: 20px;">b. Imports, c.i.f.</p> <p>II. Invisibles (BOI): (a + b + c)</p> <p style="margin-left: 20px;">a. Services</p> <p style="margin-left: 40px;">i. Travel</p> <p style="margin-left: 40px;">ii. Transportation</p> <p style="margin-left: 40px;">iii. Insurance</p> <p style="margin-left: 40px;">iv. Govt. not elsewhere classified</p> <p style="margin-left: 40px;">v. Miscellaneous</p> <p style="margin-left: 20px;">b. Transfers</p> <p style="margin-left: 40px;">i. Official</p> <p style="margin-left: 40px;">ii. Private</p> <p style="margin-left: 20px;">c. Income</p> <p style="margin-left: 40px;">i. Investment Income</p> <p style="margin-left: 40px;">ii. Compensation to employees</p> <p>Total Current Account = I + II</p> <p>B. Capital Account</p> <p>1. Foreign Investment (a + b)</p> <p style="margin-left: 20px;">a. In India:</p> <p style="margin-left: 40px;">i. Direct</p> <p style="margin-left: 40px;">ii. Portfolio</p> <p style="margin-left: 20px;">b. Abroad</p> <p>2. Loans (a + b + c)</p> <p style="margin-left: 20px;">a. External Assistance</p> <p style="margin-left: 40px;">i. By India</p> <p style="margin-left: 40px;">ii. To India</p> <p style="margin-left: 20px;">b. Commercial Borrowings</p> <p style="margin-left: 40px;">i. By India</p> <p style="margin-left: 40px;">ii. To India</p>			

<p><i>c. Short-term:</i></p> <p>i. To India</p> <p>3. Banking Capital (a + b)</p> <p><i>a. Commercial Banks</i></p> <p>i. Assets</p> <p>ii. Liabilities</p> <p>iii. Non-resident deposits</p> <p><i>b. Others</i></p> <p>4. Rupee Debt Service</p> <p>5. Other Capital</p> <p>Total Current Account = 1 to 5</p> <p>C. Errors and Omissions</p> <p>D. Overall Balance = A+B+C</p> <p>E. Monetary Movement (a+b)</p> <p><i>a. IMF Transactions</i></p> <p>i. Purchases</p> <p>ii. Repurchase</p> <p>iii. Net (i-ii)</p> <p><i>b. Foreign Exchange Reserves (Increase - / Decrease +)</i></p>			
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India's Balance of Payments on Current Account

Before analyzing India's balance of payments position over different plan period and there is a need to have knowledge on analyzing the Current Account.

Exports imply demand for a local product while imports point to a need for supplies to meet local production requirements. As export is a credit to a local economy while an import is a debit, an import means that the local economy is liable to pay a foreign economy. Therefore a deficit between exports and imports otherwise known as a balance of trade deficit (more imports than exports) - could mean that the country is importing more in order to increase its productivity and eventually churn out more exports. This in turn could ultimately finance and alleviate the deficit.

A deficit could also stem from a rise in investments from abroad and increased obligations by the local economy to pay investment income (a debit under income in the current account). Investments from abroad usually have a positive effect on the local

economy because, if used wisely, they provide for increased market value and production for that economy in the future. This can allow the local economy eventually to increase exports and, again, reverse its deficit.

So, a deficit is not necessarily a bad thing for an economy, especially for an economy in the developing stages or under reform: an economy sometimes has to spend money to make money. To run a deficit intentionally, however, an economy must be prepared to finance this deficit through a combination of means that will help reduce external liabilities and increase credits from abroad. For example, a current account deficit that is financed by short-term portfolio investment or borrowing is likely more risky. This is because a sudden failure in an emerging capital market or an unexpected suspension of foreign government assistance, perhaps due to political tensions, will result in an immediate cessation of credit in the current account.

As we have read in the above that the current account shows whether a country has favorable balance or deficit balance of payments in any given year. For example, the surplus or deficit of the current account are reflected in the capital account, through the changes of in the foreign exchange reserves of country, which are an index of the current strength or weakness of a country's international payments position, are also included in the capital account.

The following discussion details India's balance of payments on current account, over five year planning periods (see Table):

The First Plan Period

India had been experiencing persistent trade deficit, but she had a surplus in net invisibles, accordingly India's adverse balance of payments during the First plan was only ₹ 42 crores. However, the overall picture of India's balance of payments position was quite satisfactory.

The Second Plan Period

The prime feature of the Second Plan period was the highest (₹ 2,339 crores) trade deficit in the balance of payment. Net invisibles in this period was recorded at ₹ 614 crores, and covering a part of trade deficit. Balance of payments in this period recorded unfavorable, at ₹ 1,725 crores. The unfavorable balance of payment in the Second Plan was due to heavy imports of capital goods to develop heavy and basic industries, the failure of agricultural production to raise to meet the growing demand for food and raw materials from a rapidly

growing population and expanding industry, the inability of the economy to increase exports, and the necessity of making minimum 'maintenance imports' for a developing economy. This led to foreign exchange reserves sharply declined and the country was left with no choice to think of ways and means to restrict imports and exports.

The Third Plan and Annual Plans

Third plan period resembles the features of the Second plan with ₹ 1, 951 crores unfavorable balance of payments. But the reasons for this state of affair were different from the Second Plan. Unfavorable balance of payments in this period was primarily because of expanding imports under the impact of defense and development and to overcome domestic shortages (for example imports of food grains) and sluggish exports and failed to match imports. Loans from foreign countries, PL480 and PL665 funds, loans from the World Bank and withdrawals from IMF financed the current account deficit. In spite of all these there was some depletion of foreign exchange reserves of the country.

The higher unfavorable balance of payment that started in the beginning of the Second Plan continued throughout the Plan and also continued persistently during the Third and Annual Plans. During this period, huge amount was used to pay interest on the loans contracted earlier. This has reduced the invisibles balance. Consequently, balance of payment deficit was negligible.

The Fourth Plan Period

In this Plan period India's current account balance was recorded favorable at ₹ 100 cores, it was due to the objectives of the Plan. The objectives of the Plan are self-reliance – i.e., import substitution of certain critical commodities (that are key importance for the Indian economy), export promotion, so as to try to match raising import bill. Government had succeeded in finding substitutes for imports and succeeded in export promotion. The trade deficit in this period has come down from ₹ 2,067 crores in Annual Plans to ₹ 1,564 cores by the end of Fourth Plan period. The net current account balance was favorable for the first time in India.

India's Balance of Payments on Current Account (1950-51 to 2005-06) (₹ Crores)

Plan / Year	Trade Deficit	Net Invisibles	Balance of Payments
First Plan (1951-56)	- 542	500	- 42
Second Plan (1956-61)	- 2,339	614	- 1,725

Third Plan	(1961-66)	- 2,382	431	- 1,951
Annual Plans	(1966-69)	- 2,067	52	- 2,015
Fourth Plan	(1969-74)	- 1,564	1,664	100
Fifth Plan	(1975-79)	- 3,179	6,221	3,082
	1979-80	- 3,374	3,140	- 234
Sixth Plan	(1980-85)	- 30,456	19,072	- 11,384
Seventh Plan	(1985-90)	- 54,204	13,157	- 41,047
	1990-91	- 16,934	- 433	- 17,367
	1991-92	- 6,494	4,259	- 2, 235
Eighth Plan	(1992-97)			
	1992-93	- 17,239	4,475	- 12,764
	1993-94	- 12,723	9,089	- 3634
	1994-95	- 28,420	17,835	- 10,585
	1995-96	- 38,061	18,415	- 19,646
	1996-97	- 52,561	36,279	- 16,283
Total	1992-97	- 1,49,004	86,090	- 62,914
Ninth Plan	(1998-02)			
	1997-98	- 57,805	36,922	- 20,833
	1998-99	- 55, 478	38,689	- 16,789
	1999-00	- 77, 359	57,028	- 20, 331
	2000-01	- 56,737	45,139	- 11,598
	2001-02	- 54,955	71,381	16,426
Total	1997-02	- 3,02,334	2,49,159	- 53,125
Tenth Plan	(2003-08)			
	2002-03	- 51,697	82,357	30,660
	2003-04	- 63,386	1,27,369	63,983
	2004-05 ^{PR}	- 1,64,542	1,39,756	- 24,786
	2005-06 ^P	-2,27,963	1,81,107	- 46,856

Note: PR-Partly Revised, P-Provisional

Source: RBI, *Handbook of Statistics on Indian Economy* (2004-05) and RBI Bulletin Aug 2006

The Fifth Plan Period

In the Fifth Plan period India's trade deficit had increased from ₹ 3,179 crores to ₹ 3,374 crores by the end of Fifth Plan period. It was due persistent increase in imports

and inadequate increases in exports due to relative decline in export prices were made the revival of deficit trade balance. Sharp increase in invisible is another outstanding feature of Fifth Plan period.

The prime factors responsible for this increase are stringent measures taken against smuggling and illegal payment of transactions, relative stability in the external value of rupee at a time when major international currencies were experiencing sizable fluctuations, increase in earnings from tourists, the growth earnings from technical, consultancy and contracting services, and increase in the number of Indian nationals going abroad for employment and larger remittances sent by them to India. Net invisibles were more than the trade balance deficit, thus India's current account balance was favorable at ₹ 3,082 crores, which was comfortable for the first time in planning period started.

The Sixth - Plan Period

There has been a sea change in India's current account balance since 1979-80, as against favorable balance experienced by the economy the whole of the Fifth Plan; India started experiencing unfavorably balance of payments from 1979-1980 onwards. In other words, trade deficit widened from 1978-79 onwards. In this period the trade deficit was recorded at ₹ 3,374 crores, it was due to terrific growth of imports and very low growth rate of exports. This trade deficit was completely eaten the net invisibles and left current account deficit. For meeting this deficit India had taken external assistance, withdrawals of SDR, and borrowing from IMF under the extended facility arrangement. Apart from these, India used a part of its accumulated foreign exchange reserves to meet its balance of payments.

The Seventh Plan Period

During this period the total trade deficit increased to ₹ 54,204 crores. The net invisibles recorded a positive balance at ₹ 16,157 crores. After adjusting the positive balance of net invisibles, the current account balance was registered at ₹ 41,047 crores, which was the cause for serious concern, it was due to the larger imports. The increase in imports was due to import liberalization, promotion of industrial development, and the relative steep depreciation of the rupee vis-avis other currencies. The ultimate solution has to be found in controlling imports to the unavoidable minimum and promoting exports to the maximum.

Professor Sukhmoy Chakravarty in his work *“Development Planning – the Indian Experience (1987)”*, questioning the policy of liberal imports wrote: *“In my judgment, India's balance of payments is likely to come under pressure unless we carry out a policy of import*

substitution in certain crucial sectors. These sectors include energy, edible oil and nitrogenous fertilizers. In all these sectors, except fertilizers, India is getting increasingly dependent on imports resulting in a volatile balance of payments situation”.

In the year 1990-91 net invisible recorded a negative balance of ₹ 433 crores, which was the first time during last 40 years. It was largely the consequence of a net outflow of investment income of the order of ₹ 6, 732 crores in 1990-91 as against ₹ 4, 875 crores in 1989-90- as increase by 38 per cent. Thus, the cushion available through positive net invisibles to partly neutralize the trade deficit was removed.

The Eighth Plan Period

During 1992-03 to 1996-97 the trade deficit had continuously increased except 1992-03, and is was threefold increase from the year 1990-91. The total trade deficit for the Plan period was recorded at ₹ 1, 49,004 crores. Net invisibles also increased from a positive balance ₹ 4,259 in the year 1991-92 to a positive balance of ₹ 86, 090 crores by the end of the Plan period. It was good support for India. Despite this, the current account balance was recorded a negative balance in all the years and the total deficit was recorded at ₹ 62,914 crores.

The Ninth Plan Period

In this planning period the highest trade deficit was recorded in the year 1999-2000 with ₹ 77, 359 crores. Net invisibles had increased continuously in all the years of the plan except 2001-02, and the total net invisibles recorded at ₹ 2,52,995 crores. However, India's current account balance was registered negatively at ₹ 53,175 crores.

On an overall the current account deficit was high in the year 1997-98 but the deficit had come down to ₹ 16, 426 crores, it was due to heavy receipts on account of invisibles amounting to ₹ 71, 381 crores, not only wiped of trade deficit, they also created a surplus balance in current account with ₹ 16, 426 crores.

The Tenth Plan Period

During the first two (2002-03, and 2003-04) years of the Tenth Plan, the current account balance was recorded a positive balance of ₹ 30,660 crores and ₹ 63, 983 crores respectively. It was due to heavy surplus on invisibles. India's current account balance over the 2001-02 to 2003-04 year showed a favorable balance of payments. However, in the year 2004-05, there was a huge trade deficit (provisional) of ₹ 1, 64,542 crores on account of

unexpected increase in imports, although there huge jump in our exports. Net invisibles shown as positive balance of ₹ 1, 39,756 crores, but it is just enough to cover 85 per cent of trade deficit. Consequently, a current account deficit of ₹ 24, 786 crores was recorded, which is an unhealthy development. It may further worsen if India follows reckless policy of import liberalization.

Committee on Balance of Payments

Dr. C. Rangarajan, former Governor, Reserve Bank of India who headed the high level Committee on balance of payments submitted its report on June 4, 1993. The Committee made the following findings and recommendations for correcting balance of payments:

1. The Committee stressed the fact that a realistic exchange rate and a gradual relaxation of restrictions on current account transactions have to go hand in hand.
2. In the medium-term care has to be taken to ensure that there is no capital flight through liberalized windows of transactions under invisibles. At the same time there is no escape from a very close control overall capital transactions so that future liabilities are kept under control.
3. The Committed suggested that Current account deficit of 1.6 per cent of GDP should be treated as ceiling rather than as target.
4. The Committee had given number of recommendations regarding to foreign borrowings, foreign investment, and external debt management. The following are the very important recommendations among them:
 - i. Government must exercise caution against extending concessions of facilities to foreign investors, which are more favorable than what are offered to domestic investors and also against enhancing external debt to supplement equity.
 - i. A deliberate policy of prioritizing the use to which external debt is to be put should be pursued and no approval should be accorded for any commercial loan with a maturity of less than five years for the present.
 - ii. Efforts should be made to replace debt flows with equity flows. However, foreign direct investment would contain both debt and equity, and the system of approvals is applicable to all external debt. The approval of debt linked to equity should be limited to the ratio of 1:2.
 - iii. On the question of encouraging foreign investment, the Committee recommended that a national law should be seriously considered to codify the existing policy and

practices relating to dividend repatriation, disinvestments, non-discrimination subject to conditions, employment of foreign nationals, non-expropriation and sanction as also servicing of external and commercial borrowing.

- iv. Recourse to external debt for balance of payments support would have to be discouraged unless it is on concessional terms or with very long maturity.
5. The Committee recommended that no sovereign guarantee should be extended to private sector since it will give rise to issues of adequate control over management, performance, and discrimination between domestic and foreign companies.
6. The minimum foreign exchange reserves target should be fixed in such a way that the reserves are generally in a position to accommodate imports of three months.

The Committee was timely warning to manage our external debt and thus salvage our economy.

Coping with Current Account Deficit

The following are the few ways to manage current account deficit:

- Encourage depreciation of the exchange rate (e.g., by cutting interest rates or by currency intervention of one kind or another),
- Measures to promote new export industries,
- Import restrictions, quotas or duties (through the reduction in imports caused by these measures, by appreciating the domestic currency, may be offset by a reduction in exports, with the net result being little or no change in the current account balance),
- Expenditure changing, adopting fiscal and monetary policy to reduce the level of AD. This will reduce the demand for imports.

Less obvious but more effective methods to reduce a current account deficit include measures that increase domestic savings (or reduced domestic borrowing), including a reduction in borrowing by the national government.

The following are ways adopted by Government of India in managing current account deficit:

- Loans from foreign countries, PL480 and PL665 funds, Loans from World Bank, and withdrawals from IMF (to manage current account deficit in the Third Plan),

- External assistance, withdrawals of SDRs and borrowing from IMF under the extended facility arrangement, use of accumulated foreign exchange reserves (to manage current account deficit in the Sixth Plan),
- Mobilization of funds under the India Millennium Deposits (to manage current account deficit in 2000-01 year).

India had managed her current account deficit in different plan period with the following measures:

- a. Loans from foreign countries,
- b. PL480 and PL665 funds,
- c. Loans from World Bank,
- d. Withdrawals of SDRs and borrowing from IMF under the extended facility arrangement,
- e. External assistance,
- f. Use of accumulated foreign exchange reserves,
- g. Mobilization of funds under the India Millennium Deposits, and so on.

Significance of BOP Data

Balance of payments data of home country and host country are have significance to government officials, international business managers, investors, and consumers, because such data influence and are influenced by other key macroeconomic variables such as gross domestic product (GDP), employment, price levels, exchange rate, and interest rates. Therefore balance of payments may be used as an indicator of economic and political stability. For example, if a country has a consistently positive BOP, this could mean that there is significant foreign investment within that country. It may also mean that the country does not export much of its currency.

The Balance of payment of Manual published by the International Monetary Fund (IMF), i.e., IMF is the primary source of BoP and similar statistics data worldwide. It prepares balance of payments manual and publishes the same in a Balance of Payments Year Book.

Monetary and fiscal policy must take the BOP into account at the national level. Multinational businesses use various BOP measures to gauge the growth and health of specific types of trade or financial transactions by country and regions of the world against the home country

Businesses need BOP data to anticipate changes in host country's economic policies driven by BOP events. BOP data may be important for the following reasons:

- i. BOP indicates a country's financial position vis-à-vis foreign countries, thereby a country's ability to buy foreign goods or services.
- ii. BOP is important indicator of pressure on a country's exchange rate, and thus on the potential of a firm trading with or investing in that country to experience foreign exchange gains or losses. Changes in BOP may presage the impositions of foreign exchange controls.
- iii. BOP data helps in knowing the changes in a country's BOP may also signal imposition (or removal) of controls over payments, dividends, and interest, license fees, royalty fees, or other cash disbursements to foreign firms or investors.
- iv. BOP data helps to forecast a country's market potential, especially in the short- run. A country experiencing a serious BOP deficit is not likely to import as much as it would if it were running a surplus, and
- v. BoP data can also signal increased riskiness of lending to particular country.
- vi. It also helps to in the formulation of trade and fiscal policies.

Summary

International business finance deals with the investment decision, financing decision, and money management decision. Balance of payments (BOPs) is one of the factors that affect international business. Balance of payments (BoPs) is systematic statement that systematically summarizes, for a specified period of time, the monetary transactions of an economy with the rest of the world.

Balance of payments transactions are recorded on the principle of *accrual accounting* governs the time of recording of transactions. Three main elements of actual process of measuring international economic activity are: identifying what is/is not an international economic transaction, understanding how the flow of goods, services, assets, money create debits and credits, and understanding the bookkeeping procedures for BOP accounting.

Comparison of balance of payment of data among member countries of IMF is also possible only when the goods and services are valued on the basis on common price like "Market prices". There are some cases or transactions, which are necessary to use some other base for valuing goods and services. The f.o.b and the c.i.f are the two bases available for international trade. IMF recommends the f.o.b because the c.i.f base includes value

of transportation and insurance in the value of the goods. In India's balance of payments statistics, exports are valued on f.o.b basis, while imports are valued at c.i.f basis. It would be meaningful when the translation recorded on the basis of exchange rate prevailing at the time of translation. But in practice, transactions that occurred in a particular month are translated on the basis of average exchange rate for the month. Balance of payment transactions should be recorded in the same time period.

Balance of payments statistics must be arranged within a coherent structure to facilitate their utilization and adaptation for multiple purposes. The balance of payment is a collection of accounts conventionally grouped into three main categories, they are: the current account, the capital account, and the official reserve account. The current account is further divided into two, they are balance of trade (BOT), balance of invisibles (BOIs). The current account may have a *deficit* or a *surplus balance*, that indicates about the state of the economy, both on its own and in comparison to other world markets.

Capital account records public and private investment, and lending activities. It is the *net change in foreign ownership of domestic assets*. Until the end of the 1980s, key sectors listed out under the capital account were: private capital, banking capital, and official capital.

Balance of accounts may not match, it is due the errors and omissions occur in compiling the individual components of the balance of payments. The net effect of these errors and omissions, are entered as unrecorded transactions. So, errors and omissions account is used to account for statistical errors and / or untraceable monies within a country. Overall balance is equal to the sum of total current account, capital account, errors & omissions.

Current account may show surplus balance or deficit balance. The overall performance of the current over plan periods is poor and in the last two pan periods it has tried to recover.

The Committee on BOPs primarily stressed on the fact that a realistic exchange rate and a gradual relaxation of restrictions on current account transactions, no capital flight through liberalized windows of transactions under invisibles, no escape from a very close control overall capital transactions, to take current account deficit of 1.6 per cent of GDP as ceiling rather than as target. The Committee was timely warning to manage our external debt and thus salvage our economy.

Current account deficit may be managed with the encourage depreciation of the exchange rate, take measures to promote new export industries, import restrictions, quotas or duties, expenditure changing, adopting fiscal and monetary policy to reduce the level of AD. Less obvious but more effective methods to reduce a current account deficit include measures that increase domestic savings, including a reduction in borrowing by the national government.

Government of India had managed current account deficit by borrowing loans from foreign countries, PL480 and PL665 funds, Loans from World Bank, and withdrawals from IMF, taking external assistance, withdrawals of SDRs and borrowing from IMF under the extended facility arrangement, use of accumulated foreign exchange reserves, mobilization of funds under the India Millennium Deposits

Balance of payments data of home country and host country are have significance to government officials, international business managers, investors, and consumers, because such data influence and are influenced by other key macroeconomic variables such as gross domestic product (GDP), employment, price levels, exchange rate, and interest rates. Therefore balance of payments may be used as an indicator of economic and political stability.

Self Assessment Questions

1. Discuss the environment of international financial management.
2. What is BOP? Briefly discuss the components of BOPs.
3. BOPs transactions are recorded based on accounting principles. Discuss.
4. Discuss the valuation basis for goods and services?
5. What is current account? Discuss in detail the components of current account.
6. Explain the use of studying current account balance.
7. What is capital account? What are its components? Discuss.
8. Give the structure of overall balance of payments, and explain in brief.
9. Discuss the India's balance of payment position over the planning periods.
10. List out the recommendations given by Dr.Rangarajan Committee for correcting BOP.
11. What is current account deficit? How is it managed?
12. List out the ways used by India in managing current account deficit.
13. What is the significance of BOP data?

UNIT - III

International Financial Markets

Learning Objectives

After reading this unit you can be able to understand

- The system of International Financial Markers
- Various instruments of International capital and money markets
- About the role of financial Intermediaries

Introduction

The financial system, consisting of financial institutions, financial instruments and financial markets, provides an effective payments and credit system and thereby facilitates channeling of funds from the savers to the investors in the economy. The task of financial institutions or financial intermediaries is to mobilize savings and ensure efficient allocation of these funds to high yielding investment projects. The process gives rise to different types of money and financial instruments such as bank deposits, loans and equity and debt instruments.

Just as domestic financial markets have two segments short-term money market and capital market- international financial markets do also have these two segments. In the short-term money markets funds for short periods are loaned and borrowed. Commercial banks and non-bank financial intermediaries participate in this market. In the capital market long-term business houses through equity and bond issues raise term capital. Development bank and long-term financial institutions participate in the market. Sovereign Governments and public sector enterprises are to issue bonds to meet their financial needs.

Globalisation of Financial Market

Business houses no longer restrict themselves to domestic sources of financing. The search for capital does not stop at water edge. With the pursuit of policies of liberalization

and globalization, the distinction between domestic and foreign financial markets is becoming increasingly blurred. With the lifting of regulatory systems in 1980s become one vast connected market. Deregulation, internationalization and innovations have created such a market. In 1980 the stock of international bank lending was \$324 billions. By 1991 it had rise to \$7.5 trillion. Between 1980 and 1990 the volume of world wide cross border transitions in equities rose from \$120 billion to \$1.4trillion a year. Between 1986 and 1990 outflows of foreign direct investment (FDI) from U.S.A., Japan, West Germany, France and Britain increased from \$61billionm a year to \$156 billion. In 1990, there were roughly 35000 multinational corporations with 147000 affiliates, which account for a major share in direct foreign investments. In 1982 the total international bonds outstanding was 259 billion. It went up to \$1.65 trillion by 1991. In 19870 America securities transitions with foreigners amounted to 3% of the GDP. In 1990 it was 93% of GDP. West Germany, Japan and England have also had similar trend.

International financial centers have developed as extension of domestic centers. Those domestic centers, which have greatest convenience of international communications, geographical locations, financial services etc., came to be recognized as “International financial centers”. In the process major financial cities in the workload have become the international financial centuries. The most important among them are London, Tokyo, New York, Luxembourg, Singapore, Honkong etc.,

In international finance centers or markets, the type of transactions occurring are 1.between foreign lenders and domestic borrowers; 2.between domestic lenders and foreign borrowers; 3. Between foreign lenders and foreign borrowers. The third type of transiting is called entrepot or offshore transactions. In this case the financial centers merely provide facilitating services for foreign lending and borrowing.

Until the development of the Euro market in late 1950s, international financial centers were principal suppliers of capital to foreign borrowers. In the post 1960 Euro market, entrepot type and offshore financial transactions became increasingly predominant. Hence the traditional nature of financial centers was altered radically. With the internationalisation of credit transitions, it was no longer necessary for an international center to be a net supplier of capital. Thus small and relatively unknown parts of the world become important banking centers- Nassau (Bahamas), Singapore, Luxembourg, etc. the worlds financial centers as a group provide three types of international services

- (1) Traditional capital exports,
- (2) Entrepot financial services, and
- (3) Offshore banking.

The traditional financial centers were net exporters of domestic capital. Thus functions have been performed through foreign lending by commercial banks, the underwriting and placement of marketable securities for foreign issuers and the purchase of notes and obligations of non-resident entities of domestic investors in the secondary market.

Entrepot financial centers offer the services of their domestic financial center. It is financial intermediation performed primarily for non-resident borrowers and depositors. It refers to international banking business involving non-resident foreign currency-denominated assets and liabilities. It confines to the banking operations of non-residents and does not mix with domestic banking. But the domestic financial markets are well insulated from offshore banking activity by an array of capital and exchange controls. Offshore banking business is carried in about 20 centers throughout the world. It offers benefits like exemption from minimum cash reserve requirements, freedom from control on interest rates, low or nonexistent taxes and levies, low license fee etc. Offshore banking units are branched of international banks. They provide projects financing, syndicated loans, issue of short- term and medium term instruments etc.

Recent Changes in Global Financial Markets

The decade of eighties witnessed unprecedented changes in financial markets around the world. The seeds of these changes were however sown in the 1960s with the emergence of Euromarkets, which were a sort of parallel money markets, virtually free from any regulation. This led to internationalization of the banking business. This market grew vigorously during the seventies and pioneered a number of innovative funding techniques.

The outstanding feature of the changes during the eighties was integration. The boundaries between national market as well as those between and offshore markets are rapidly becoming blurred leading to the emergence of a global unified financial market. The financial system has grown much faster than real output since the late seventies. Banks in major industrialized countries increased their presence in each other's countries considerably. Non-resident borrowers on an extensive scale are tapping major national market such as the US, Japan, Germany. Non-resident investment banks are allowed access to national bond and stock markets. The integrative forces at work through the eighties have more or less obliterated the distinction between national and international financial markets. Today both the potential borrower and the potential investor have a wide range of choice of markets.

In addition to the geographical integration across market there has been a strong trend towards functional unification across the various types of financial intuitions within the individual markets. The traditional segmentation between commercial banking, investment banking, and consumer finance and so on, is fast dis-appearing with the result that nowadays “everybody does everything”. Universal banking intuitions/bank holding companies provide worldwide, a wide range of financial services including traditional commercial banking

The driving forces behind this spatial and functional integration were first, liberalization with regard to cross-border financial transaction and second deregulation within the financial systems of the major industrial nations. The most significant liberalization measure was the lifting of exchange controls in France, UK and Japan. Withholding taxes on interest paid to non-resident were removed, domestic financial markets were opened up to foreign borrowers and domestic and domestic borrowers were allowed access to foreign financial markets. Thus in the portfolios of investors around the world, assets denominated in various currencies became more nearly substitutable-investors could optimize their portfolios taking into consideration their estimates of return, risk and their own risk preferences. On the other hand, borrowers could optimize their liability portfolios in the light of their estimates of funding costs, interest rate and exchange rate risk and their risk preferences.

Deregulation involved action on two fronts. One was eliminating the segmentation of the market for financial services with specialized institutions catering exclusively to particular segments, and measures designed to foster greater competition such as abolition of fixed brokerage fees, breaking up bank carters and so forth. The other was permitting foreign financial institutions to enter the national markets and compete risks and their risk preferences.

The fever of liberalization and deregulation has also swept the various national stock markets. This is the least integrated segment of financial markets though in recent years the number of non-resident firms being listed on major stock exchange like New York and London has increased significantly.

Liberalization and deregulation have led to a significant increase in competition within the financial services industry. Spreads on loans, underwriting commissions and fees of various kinds have become rather thin. Another factor responsible for this is the tendency on the part of prime borrowers to approach the investors directly by issuing their own primary securities thus depriving the bank of their role and profits as intermediaries. This is a part of the overall trend towards securitization and disintermediation.

The pace of financial innovation has also accelerated during the last 10 to 15 years. The motive force behind innovation like options, swaps, futures and their innumerable permutations and combinations comes both from the demand side and the supply side. On the one hand, with the floating of exchange rates in 1973 a new factor was introduced main international finance; exchange rate volatility and the substantially higher interest rate volatility witnessed during the eighties led to demand for newer kinds of risk management products which would enable investors and borrowers to minimize if not eliminate totally exchange rate and interest rate *risks*. On the supply side as the traditional sources of income for banks and investment banks such as interest, commissions, fees, before the competitors wised up to the fact and started offering which it is sometimes said the bankers themselves do not fully understand. The innovation mania has been made possible and sustained by the tremendous advance in telecommunications and computing technology.

Liberalization and deregulation of financial markets is on an ongoing process. From time to time events and circumstances give rise to calls for re imposition of some controls and barriers to cross-border capital movements. Some governments resort to such measure to contain or prevent a crisis. Many economists have proposed taxation of certain capital account transactions- particularly short- term movements of funds- to throw sand in the excessively oiled machinery of global capital market". The quality and rigor of banking supervision in many developing countries needs considerable improvement.

In the western hemisphere, US and most of Europe have more or less free financial markets. Japan started the process around mid-eighties and most of the barriers have been dismantled though some restrictions still remain. In other parts of the world, countries like Singapore and Hong Kong already. Eastern Europe and third world have begun their economic reforms including freeing their financial sectors. Recent years have seen surge in portfolio investments by institutional investors in developed countries in developed countries in the emerging capital market in Eastern Europe and Asia. A large number of companies from developing countries have successfully tapped domestic markets of developed countries as well as offshore markets to raise equity and debt finance.

The explosive pace of deregulation and innovation has given rise to serious concerns about the viability and stability of the system. Even such as the LDC debt crisis and the 1987 stock market crash in the 1980s the east Asian currency crisis and the tenets following the Russian debacle including the fall of LTCM, a giant hedge fund in the 1990s have underscored the need to redesign the regulatory and control apparatus which will protect investors interest make the system less vulnerable to shock origination in the real economy, will protect investors interest make the system less vulnerable to shocks originating in the real economy, will enable location and containment of crises when they do occur

without unduly stifling competition and making the markets less efficient in their role as optimal allocators of financial resources. Increasing inter-dependence implies convergence of business cycles and hence less resilience in the global economy. Disturbances following a local financial crisis tend to spread throughout the global system at the “speed of thought” making the policy makers task extremely difficult.

International bodies such as the IMF have already begun drawing up blueprints for a new architecture for the global financial system. Extensive debates will follow among economists, finance experts and policy makers before the blueprints are translated into new structures.

International Financial Markets and Instruments

Eurocurrency Market

Prior to 1980 Eurocurrency markets are the only international financial market of any significance. They are offshore markets where financial institutions conduct transactions which are denominated in currencies of countries other than the country in which the institutions are located. The Eurocurrency market is outside the legal purview of the country in whose currency the finance is raised in the market.

Eurocurrencies are bank deposits denominated in currencies other than the currency of the country in which the bank is located. The bank deposits and loans are denominated in Eurocurrencies, particularly dollars. Eurodollars are dollar denominated time deposits held by financial institutions located outside the U.S., including such deposits by branches of U.S. banks. Thus a dollar deposit with a bank in London or Paris is a Eurodollar deposit. Similarly, a Deutsche mark deposit with a bank in London is a Euro mark deposit, even a deposit made by a U.S. firm with a Paris subsidiary of a U.S. bank is still a Eurodollar deposit. Similarly a Eurodollar loan made by a bank or branch of a bank outside U.S.A. is a Eurodollar market and the deposits and loans are termed as Eurodollar deposits and the loans are called Eurodollar loans. The term ‘euro’ is affixed to denote offshore currency transactions.

Origin and Growth of Eurodollar Market

The Eurodollar market originated in the 1950s. Soviet Union and Eastern European countries, which earned dollars by gold exports and other means, wanted to keep their dollars as deposits with European banks. They avoided the banks in U.S.A. out of the fear

that U.S. Government may block deposit in the U.S. banks. Subsequent growth of the market may be attributed to the emergence of dollar as the principal international currency after the World War II. Since 1965 there has been a phenomenal growth of this market. The fast growth of the Eurodollar market during 1965-1980 periods may be attributed to four major factors.

1. Large balance of payments deficits of U.S.A particularly during 1960s resulted in the accumulation of dollars by foreign financial institution and individuals.
2. The Various regulations, which prevailed in the U.S. during 1963-74, encouraged capital outflows. The interest equalization tax of 1963 was lifted and the Eurobond market started flourishing. Side by side there was a revival of the market for foreign bonds in the U.S. regulation Q regulated the interest rates that U.S. banks can pay on time deposits and regulation M required U.S. banks to keep a stipulated percentage of cash reserves against deposits, These restrictions encouraged U.S. banks and multinational corporations to keep dollar deposits and borrow dollars abroad.

Thus the main factors behind the emergence and growth of Eurodollar market were the regulations imposed on borrower and lenders by the U.S. authorities that motivated both banks and corporation to evolve Eurodollar deposit and loans. The European and U.S. banks take deposits out of USA.

To place them in free centers in Europe. They for short-term lending or for investment used these deposits with outside banks.

3. The Massive balance of payment surpluses realized by OPEC countries due to sharp increase in oil prices (1973 and 1978) gave rise to what are called “petrodollars”. These countries preferred to deposit such dollar with financial institutions outside the US.
4. The efficiency with which it works and the lower cost has also contributed to the growth of Eurodollar market. Large amounts of funds can be raised in this market due to lower interest rates and absence of credit restrictions that market much domestic market. The Eurocurrency loans are generally cheaper due to small lending margins as a result of exemption from statutory cash reserve requirements, absence of restrictions on lending rates, economies of scales etc., Thus these markets are not subject to national controls.

In sum Eurodollar market is the market for bank time deposits denominated in U.S. dollar but deposited in bank outside the United States. Similarly European, euro sterling,

and so forth are simply deposits are denominated. The Eurocurrency market is the market for such bank deposits. The Eurocurrency market thus permits the separations of the currency of denomination from the country of jurisdiction

Eurocurrency market that started in London found its way in other European cities and in Singapore, Hongkong, Tokyo, the Cayman Island and Bahamas. These markets consist of beside Eurodollar market. Asian dollar market Rio dollar Market, European market as well as Euro sterling. Euroswiss francs euro French Franc euro-D marks markets etc.,

International banks and foreign branches of domestic banks, private banks and merchant’s banks are the main dealers on the market. In fact, most of the U.S. banks deal in this market. The commercial banks in each of these markets accept interest-bearing deposits denominated in a foreign currency and they lend their funds either in the same country or in a foreign country in whose currency the deposit is denominated. Over the years these markets have evolved instruments other than time deposits and short-time loans. Those instruments are certificates of deposits, euro commercial paper; medium to long-term floating rate loans, Eurobonds etc., the market is of wholesale nature, highly competitive and well connected by network of brokers and dealers

Eurocurrency Finance

The table below shows different types of finance available in euro currency market.

1.SHORT-TERM	2.MEDIUM-TERM	3.LONG-TERM
(Unto 365 days)	(2 to 10 years)	(10 years above)
a) Euro loans from	a) Syndicated Loans	a) Euro Bonds Banks
b) Euro commercial paper &Certificates of Deposits	b) Revolving under writing Facility	b) Euro-equities
c) -----	c) Euro-Medium term Notes	c)-----

Short-Term Finance

- a) **Euro Loans:** These loans are made to the corporations in the requisite currency by banks. These loans are essentially short-term accommodation for periods less than one year. They are mostly provided in euro dollars. The interest rates on these loans are based on the London Inter Bank offered rates (LIBOR) for their respective currencies. LIBOR- represents a rate of interest used in interbank transactions in

London. The rate for each currency is arrived at as an average of the lending rates charged by six leading London banks in the interbank market. The borrowers of euro-loans are charged on the basis of LIBOR + depending upon the six months floating interest rates is charged. If these loans are for periods beyond six months, the loan is rolled over and interest is charged on the LIBOR prevailing at the time of rollover.

b) Euro commercial Paper (ECP): Euro commercial paper is a floating euro-commercial promissory note. These notes are issued at discount on their face value and such discount represents the profit to the investor. These ESP's are also issued for less than one year between 7 to 365 days. They offer a high degree of flexibility to the borrower with wide ranging choice of amounts and maturities. They are thus tailor made to take into account the specific needs of the borrower. It is quite common for an ECP issuer to follow it up with Euro Bond/Equity Issues. ICICI was the first Indian Institution to obtain finance through ECP in 1987.

1) A certificate of deposit is similar to traditional term deposit but it is negotiable and hence can be traded in the secondary market. It is often a bearer instrument. There is only one single payment of principal and interest. The bulk of the deposits have a short duration of 1,3 or 6 months. For CDs these is a fixed coupon or floating coupon. For CDs with floating rate coupons its life is subdivided into periods usually of 6 months. Interest is fixed at the beginning of each period. The rate of interest is based on the prevailing market rate, which is usually the LIBOR.

Medium Term Finance

a) **Syndicate Loans:** These are loans given by syndicates of banks to the borrowers. They carry a variable rate of interest (LIBOR). They are tied to specific project in case of corporations. Government can also borrow syndicate loans. But such loans are not tied to specific projects. They can be even used to meet balance of payment difficulties.

b) **Revolving underwriting facility (RUF):** A RUF is a facility in which a borrower issues on a revolving basis bearer notes, which are sold to investors either by placing with an agent or through tenders. The investors in RUF undertake to provide a certain amount of funds to the borrowers up to a certain date. The borrowers is free to draw down repay and redraw the funds after giving due notice. The London branch of the State Bank of India to an Indian borrower provided the first RUF in 1984.

- c) **Euro –Medium term notes (MTNs):** The medium term notes have maturity from 9 months to 20 years. There is no secondary trading for MTNs. Liquidity is provided by the commitments from dealers to buy back before maturity at prices, which assure them of their spreads. These are issued just like Euro-commercial paper. The issuer enjoys the possibility of issuing them for different maturity periods. Companies use these notes. The sums involved vary between \$2 & \$5 million.

Long Term Finance

The long-term credit may be in the form of euro-bonds and euro-equities, which are known as euro-issues. We discuss here under the market for Eurobonds and euro equities

Eurobond Market

The last three decades have witnessed a fast growth of international bond market. Corporate sector can raise long-term funds through the issue of Eurobonds. Eurobonds are debt instruments denominated in a currency and issued outside the country of currency. Main borrowers in the Eurobond market are companies, MNC, state enterprises, Governments and International Organizations. Among the developing countries the main borrowers have been Argentina, Brazil, Chile, Hong Kong, Ivory Coast, Korea, Malaysia, etc.,. Lately India has also joined the list of borrowers.

Investment and institutions make investment in Eurobonds. Institutional investment comes from pension funds of west European nations, U.N. agencies, mutual funds of continental European banks and merchant bankers.

The Main currencies in which borrowings are made are U.S.\$ Gilder, Candian dollar, French Franc, Swiss Franc and Japanese Yen.

Euro-bond is similar to domestic bonds/debentures sold in domestic capital market. Unlike domestic bond markets, Euro-bond market is free from official regulations; instead it is self-regulated by the Association of International Bond dealers. The prefix euro indicates that the bonds are sold outside the countries in whose currencies they are denominated.

Two kinds of bonds are floated in internal bond market.

- ▶ Euro-bonds underwritten by an international syndicate and placed on the market of countries other than that of the currency in which the issue is made.

- Foreign bonds issue on the market of a country and bought by non-residents in the currency of that country.

Foreign Bonds

These are bonds issued by borrowers outside their domestic capital market underwritten by a firm that is situated in the foreign market. These bonds are denominated in the currency of the market in which they are issued. At times they may be denominated in another currency.

Thus a foreign bond is issued by foreign borrowers and is denominated in the currency of the country in which it is issued. U.S.A., Japan, Switzerland, Germany and U.K. allow foreign borrowers to raise money from their residents through the issue of foreign bonds.

Foreign bonds are referred to as traditional international bonds because they existed long before Eurobonds. Yankee bonds are foreign bonds issued in the United States. Foreign bonds issued in U.K. are called Bulldog bonds. Those issued in Japan are called Samurai bonds.

Immediately after the Second World War, USA was the primary market for foreign bonds. Due to interest Equalization Tax imposed in 1963 much of the dollar denominated bonds moved to the Eurobond market. The market trend is that borrowers prefer Euro market rather than the U.S. market.

Foreign organizations other than U.S. have extensively floated dollar bonds in the United States taking advantage of the well-developed capital market. US multinational raised substantial amounts of capital during 1970s by issuing bonds denominated in D-mark in Germany and bonds denominated in Swiss Francs in Switzerland.

Eurobond

A Eurobond is to be distinguished from a foreign bond in that it is denominated in a currency other than the currency of the country in which it is issued. Eurobonds are sold for international borrowers in several markets simultaneously by international group of banks.

The same causes, which led to the growth of Eurocurrency market, have also contributed to the development of Eurobond market. But the size and growth rate of this

market are modest compared to Euro market. Yet, it has established itself as a major source of financing for multinational corporations. Besides MNCs, private enterprises, financial institutions, government and central banks and international financial institutions like the World Bank are the principal borrowers. They issue these bonds.

Institutional investors such as insurance companies, mutual funds, pension funds etc are the principal buyers/investors. Leading multinational bank and brokerage house also act as lenders. Since it is free from regulations that characterize the US Market, MNCs exploits the control-free environment. An international syndicate representing major European banks and European does underwriting of bond issue and foreign branches of US banks with participation from banks in other financial centers in Asia, the Middle East, and the Caribbean's as well as large international securities firms.

Growth of Eurobond Market

The Eurobond market started flourishing due to some special advantages which are not available to either the domestic or foreign bond market. They are:

1. The Eurobond market like the Eurocurrency market is an offshore operation not subject to domestic regulations and controls. Domestic issues of bonds denominated in local currency are subject to several regulations. Eurobond issued is not subject to costly and time consuming registration procedures. In the USA securities exchange commission procedures are applicable both to the domestic and foreign bonds issued in United States. Disclosure requirements are less stringent to Eurobonds. Therefore many MNCs which do not which to disclose information resort to Eurobonds issue.
2. Eurobonds are issued in bearer form. This will facilitate their easy negotiation in the secondary market. These bonds are not available to US resident when issued. But they could purchase them after a cooling-off period.
3. Eurobond holders are not subject to income tax withholding on the interest received when they cash their interest coupons. But such withholding applies to non-resident investors in domestic and foreign bonds issued in USA. That is why, many U.S, MNCs use their subsidiaries to issue Eurobonds to reduce their borrowing cost.

Types of Bonds

There are different types of innovative bonds.

1. **Straight Bonds:** These bonds have fixed maturities. Interest payments are made at intervals of one year. These bonds are also issued on a perpetual basis. Bullet bonds

provide repayment of the entire principal amount on a single maturity date. Full or partial redemption before fixed maturity date is also permitted.

2. **Convertible Bonds:** In addition to straight bonds convertible bonds or bonds attached with warrant are issued. Both these bonds can be converted into equity of the issuing company at a pre-specified conversion ratio.
3. **Floating Rate Note:** To overcome the risk arising out of volatility of interest rates bonds is also issued in the form of floating interest rate bonds. Since the interest rate can be adjusted according to the market rates, these bonds have become popular. Multinational financial institutions prefer to participate in this market rather than in syndicated Eurocurrency loans.
4. **Multicurrency Bonds:** Multiple currency bonds and currency cocktails are another innovation in bond issues. Multiple-currency bond entitles the holders to receive interest and principal in any of the specified currencies whose exchange rate are established at the outset. It is advantageous to the investor because he can ask for payment in the currency, which appreciated most. International bonds denominated in a currency cocktail, such as European Currency Unit (ECU), afford protection to the investor against exchange rate fluctuations.
5. **Convertible Bonds:** Another interesting variation of bond issue – dual or multiple currency bonds with the convertibility provision. For example a Swiss MNC may issue a Eurodollar bond that entitles the investor to convert into share of the company denominated in Italian inter lea at a specified conversion ratio. The fortune of the investor depends, among other things on the movement of US dollar/Swiss franc exchange rate.

The dual currency Eurobonds majority of which are yen/dollar bonds have been around for a few years. These bonds are denominated and serviced in Japanese Yen, but are redeemable in US dollar at the exchange rate fixed at the time of issue.

6. **Bonds with Equity Warrants:** Another innovation is the so-called ‘wedded warrants’, which were issued by a French company in 1985. These are 10-year bonds called after 5 years with warrants which give the holder the option to buy identical but non-callable bonds. For the first five years the warrants are ‘wedded’ to the original bonds. If the bondholder wants to exercise these warrants during this period, the holder must sell the original bonds back to the borrower. During the second 5 years period, the warrants are divorced from original bonds. Hence the bonds can be acquired for cash.

7. **Zero coupons Bond:** These bonds are sold at discount. Hence no interest is paid. Issuers prefer them because they need not pay interest at periodical intervals. Investors especially from those countries which exempt capital gains or tax at lower rates find them attractive.

Despite all these innovations straight or fixed rate Eurobonds continue to account for a major share in bonds issue. Next come the floating rate bonds; convertible bonds and bonds with warrant account for a small portion of the total market.

Equity Market

Investors in many countries have been exhibiting interest in acquiring equity investments outside their countries. Investment in foreign equity is of two types- direct investment (DI) and portfolio investment. Individuals and multinational corporations make investment in listed equities of foreign firms. While individual investors acquire shares as investment, multinational corporations invest in shares of a company of a foreign country so as to acquire a controlling interest over management. They may even start subsidiaries in foreign countries with 100 percent equity ownership. These are all called direct foreign investments.

Institutional investors like pension's funds, mutual funds, investment companies etc., and share like listed in stock exchanges to derive benefits from international portfolio diversification.

The existence of a well-developed secondary market is a pre-requisite for investing in equities of companies by foreign investors. Organized exchanges are found in Australia, Belgium, Canada, France, Germany, the Netherlands, Hong Kong, Italy, Japan, Singapore, South Africa, Sweden, Switzerland and United Kingdom, beside USA. But trading in many exchanges is often restricted to a handful of companies, which dominate the market. A company can raise equity capital in international market in two ways:

1. By issuing shares in Euro market which are listed on the foreign stock exchange.
2. Through the issue of America Depository Receipt (ADRs) or European Depository Receipt EDRs or Global Depository Receipts (GDRs).

Major companies today do not ignore equity markets outside their countries while embarking on a substantial issue of shares. Particularly non- US multinationals have found that the domestic markets cannot cater to their financial needs; hence they are searching for equity funds from foreign investors. Moreover they have found that from domestic

equity markets. This tendency is strengthened by the fact that institutional investors have been paying attention to international diversification of portfolio investments.

Notable example of internationalization of the equity base is that of Philips, a Dutch Electrical company. With the starting of new subsidiaries in foreign countries, it had to raise resources through equity issue to match its multinational operations. It started the process in early 1980s.

The expansion of the Euro-equity market has been facilitated by a number of factors and innovations. They are:

1. International syndicates of banks to act as lead managers and brokerage firms that are capable of handling Euro-issues within short period of time have emerged.
2. Syndication and distribution fees for euro equities are much lower compared to domestic issues.
3. Innovative approaches to investment in foreign equities have been made to overcome stringent regulations in the U.S. firms and U.S. MNCs desiring to avoid lengthy and costly registration requirement for domestic equity issues started issuing new instruments.

The new innovations are American Depository Receipt (ADR) and American Depository Shares (ADSs).

American Depository Receipts (ADRs)

These are the certificates denominated in dollars issued by a US. Bank on the basis of a foreign equity it holds in custody in one of the branches abroad, usually in the home country of the issuer. This system was developed abroad, usually in the home country of the issuer. This system was developed by Morgan Guaranty Trust Company of New York on 1981 to facilitate the trading of foreign securities in the U.S. The ADR represents a convenient way for a US investor to buy foreign equity shares that were not listed in US Exchanges. The investor can receive dividends in dollars without bearing foreign taxes or being subject to exchange regulations. The system also permits transfer of ownership of this receipt in the US without the physical transfer of ownership of this receipt in the US without the physical transfer of the underlying shares. Because the underlying shares are not subject to US Securities and Exchange Commission (SEC) registration procedure, they have become more attractive. Issues traded outside the US were called International Depository Receipt (IDR) issues.

The American depository shares (ADS) are similar to ADRs. They are also the stock ownership certificated issued in the US by a transfer agent or a trustee acting on behalf of the foreign issuer.

Global Depository Receipts (GDRS)

GDRs are traded and settled outside the US. However, the SEC permits the foreign companies to offer their GDRs to certain institutional buyers. The Government of India contemplated in 1991 to permit Indian companies to issue equity and equity related instruments in the form of GDRs and convertible bonds. A detailed notification was form of GDRs and convertible bonds. A detailed notification was issued in November 12, 1993 outlining the scheme for the issue of GDRs and foreign currency convertible bonds. The scheme came into force effective from April 1, 1992. In terms of guidelines issued by the Union Ministry of Finance in November 1993, Indian companies have been permitted to raise foreign currency resources through the issue of foreign currency convertible bonds (FCCBs) and equity shares under the global depository receipt (GDR) mechanism to foreign investors, both individual and institutional investors.

A Global Depository Receipt is a dollar denominated instrument traded on a stock exchange in Europe or the US or Both. Each GDR represents a certain number of underlying equity shares. Though GDRs are quoted and traded in dollar terms the underlying equity shares are denominated in rupees.

An Indian company issues the shares to an intermediary called the depository (a Euro bank) in whose name the shares are registered. It is the depository, which subsequently issues the GDRs. The physical possession of equity shares is with another intermediary called the custodian, which is the agent of the depository. Thus while a GDR represents issuing companies shares it does have a distinct identity. In fact it does not figure in the book of the issuer.

For Explanatory purpose, we may cite the case of reliance industries ltd,. Which was the first Indian company to make GDR issue in May 1992? Each GDR represent two shares of RIL. The issue price of each GDR was fixed at \$16.35 equal to ₹ 245 per share. The GDR can be traded worldwide in all the stock exchanges.

The FCCB and GDRs may be denominated in any freely convertible currency. However, the ordinary shares underlying the GDR and the shares issued upon conversion of the FCCBs will be denominated only in Indian currency. The GDRs issued under the scheme may be listed on the overseas stock exchanges or over the encounter exchange

or through book entry transfer systems prevalent abroad and receipt may be purchased, possessed and freely transferred by a person who is a non-resident. With the adoption of liberalization policies by the Indian Government in June 1991, Indian corporate sector started launching big projects. There has been an around expansion in the industrial sector. In many cases the project sizes are such the required finance cannot be raised in the Indian capital market. The companies had to tap off-shore funds. Further more; the interest rates prevailing in Euromarkets are comparatively lower, leading to saving in interest costs. Some companies have taken recourse to euro-issues to repay the Indian currency debt to improve their profitability. In the case of convertible bonds the shares can be issued at a premium at the time of conversion. This would lessen the cost of capital to the company. These schemes become possible because of a major development in international capital markets in recent years- increasing interest among international investors in emerging markets. A few east European countries in Asia and Latin America follow the major emerging markets. India has been identified as an important emerging market on account of the large size of its economy, its active capital market as well as its recent effort at globalization.

Guidelines for Euro-Issues

The Government of Indian notified on November 12, 1993 a scheme for facilitating the issue of foreign currency convertible bonds (FCCBs) and ordinary shares through GDR mechanism. According to the above notification, the scheme came into force on April 1, 1992.

The Eligibility Criteria under the Scheme are

1. A company involved in priority sector industries, which wants to issue FCCBs or equity shares through GDR, is requires to obtain prior permission of the department of economic Affairs, Ministry of Finance. In other cases the companies well need to obtain the permission of foreign Investment Promotion Board clearance. An issuing company shall have a consistent track record of good performance for a minimum period of 3 years. On this basis only the dept. of economic affairs gives the approval for finalizing the issue structure.
2. On the completion of finalization of issue structure in consultation with the lead manger to the issue, the company shall obtain final approval form the dept. of economic affairs to proceed ahead with the issue.

The other salient features of the guidelines are: (i) the aggregate foreign investment made either directly or indirectly through GDR mechanism shall not exceed 51% of the

issued and subscribed capital of the company. Ordinary shares and FCCBs issued against GDRs shall be treated as foreign direct investments.

The above guidelines were modified on May 1994. They were revised again in June 1996.

1. There will be no restriction on the number of euro issues made by a company in a year. In the previous guidelines, one company could make at most one euro issue in a year.
2. The pre-requisite of having a minimum track record of profitability of three years has been relaxed for companies engaged in infrastructural industries such as power generation, telecommunications, petroleum refining, port, roads and airports. Companies engaged in other industries will have to satisfy the three year track record of profitability as earlier.
3. Bank financial institutions and non-banking finance companies registered with the RBI will be allowed access to the euro issue market.
4. The Government has allowed 25% of the GDR or FCCs capital requirements as against 15% earlier. The other approved end-use methods remain, namely, financing capital goods imports, financing domestic purchases of plant, equipment and buildings, prepayment or scheduled repayment of earlier external borrowing and making investment abroad where these have been approved by competent authorities.
5. The deployment of euro issue proceeds in the stock market or in real estate has been banned.

International Financial System: Unique Markets

Foreign Exchange Market

The functions of foreign exchange markets-conversion of currencies, obviously, one currency can be converted into another only if the exchange rate is known. It is the functions of foreign exchange markets to establish these exchange rates dependent on the forces of demand and supply. With the future movements in exchange rates being highly uncertain it is clear that holder of foreign exchange faces the risk of adverse movements in the exchange rate. Even those who have to receive a specified amount of foreign currency sometime in the future face the risk of downward movement in the exchange rate.

So, there have developed what we call 'forward' and 'future' markets to tackle the uncertain movement in exchange rates.

Forward Market

A forward market for foreign exchange is simply a market for foreign currencies that are to be delivered in the future. The operations can be compared with the forward market for commodities, which allows purchases and sales on any forward date. Forward markets enable participants to cover or hedge against the risk that exchange rates will vary during a [particular period, i.e., the period at which currencies will be exchanged in future are decided in advance. Such rates are called forward rates.

All of us know that money has time value, as it is capable of earning interest. Hence, the differential between present market rates and forward rates will usually reflect the differential interest rates in the two currencies. What is more important, however is that some degree of certainty has been introduced, though at a cost. The cost is the difference between the spot rate and the forward rate for that currency. They may be intermediaries, such as banks involved in bringing together the parties to a forward transaction

Futures Market

Future markets allow additional facilities as compared to forward markets. The crucial advantage is that of tradability. Such contracts are openly traded on organized exchanges. Tradability is made easier by specifying standard sizes and settlement dates for future contracts.

It is worth mentioning here that there are three other markets that have gained importance in the recent past as crucial components of the international financial system.

These three are: Option market, Euro market and inter bank market

Options Markets

The options market is another market to hedge risks arising from variable exchange rates. Here risk is traded separately from the financial instrument carrying this risk

What takes place at the options market?

First, let us concentrate on the word options. An option, by definition, is a choice available to the investor. What is the choice regarding?

The choice, dependent on a pre-specified price, is regarding honoring the contract to buy or sell a currency at some future date. Thus in a contract to buy, if the market price prevailing at that future date is higher than the pre-specified price, one will go in for the purchase of the currency at the contract price, ie., the contract will be honored. However, if the market price at that date is lower than the contract price, it would be advantageous not to honor the contract. The reverse is the position in the case of a sale contract.

Now, you will remember that this facility is not available in the forward market. Both future market and options market have grown to provide the much-needed flexibility to the forward market

Cross-border dealing between market participants, more so between institutional players, has led to the development of Euro market. These are market without any nationality, that is financial instruments in such markets are denominated in currencies different from the currency of the country where the market. For example, dollar deposits that are accepted by an American bank in London are Euro dollars. Such markers are also free from national regulations and there by enjoy a great degree of independence. Users of Europe markers therefore are able to move funds at their discretion.

The Euro market can be loosely divided into a Euro currency market for short-term finance and a Eurobond markets for longer-term financing

A loan raised in the Euro currency market normally has maturates up to six months, though facilities for medium-term financing are also becoming available. With the Euro currency market, the most important and widely used currency is the Eurodollar, which is largely a reflection of the economic importance of USA in the world economy.

Eurobonds are denominate in one or more of the Euro currencies and arranged by international underwriting syndicated or investment banks. They can be sold in several countries simultaneously so that not only the underwriters but also the investors come from many countries.

Interbank Market

In foreign exchange markets, as you will recall, different currencies are traded. But except in some European centers, one does not see, the market anywhere. This is because most participants in the foreign exchange market find it convenient to conduct their business via the large commercial banks. It is these banks that comprise the interbank market.

Most large corporations find that the interbank market provides a reasonably priced service that is not worth by passing with other arrangements for direct access to the foreign exchange market. The role of bank is to act as 'market makers' that is they stand ready to buy and sell foreign currencies.

Hence we can define an interbank market as one where dealings in foreign currencies take place between banks themselves. Most of the interbank business is conducted by a small number of banks that have a worldwide network of branches. Is there room for more? Well as international trade grows, more and more banks will find it profitable to develop the expertise to handle foreign currencies

Innovations in Financial Instruments

The uncertainty in the movement of foreign exchange rates has, as explained earlier led to the development of various markets such as the forward market, futures markets, options market, Europe market and the interbank market. New financial instruments have also been introduced in response to the uncertain movement in exchange rates. The objective was to maintain the attractiveness of long-term instruments, as these were the one, which faces increased uncertainty and volatility in exchange rates.

Floating Rate Notes (FRS)

Floating rate notes were first issued in 1978 in the Euromarkets. But just what are floating rate notes?

Floating rate notes are debt instruments on which interest rates are set usually semi-annually, at a margin above a specified interbank rate. The usual benchmark is the London interbank offered rate (LIBOR). Because the interest rate payable on the instrument rises with the general rise in interest rates as indicated by LIBOR or some other interbank market rate, the investor risk to that extent is minimized.

So we see the risk due to the adverse movement in exchange rates is reduced owing to the changing interest rate payable on the instrument.

Multiple Currency Bonds

Multiple currency bonds are denominated in cocktails of currencies. They are popular because they reduce currency risk below the level that would prevail if the bond were denominated in a single currency. Depreciation of one currency can be offset against appreciation in other over the maturity of the bond.

You wonder in what currency the investor is paid at the expiry of the maturity period of the instrument.

Well the investor is paid according to the contractual agreement, which may stipulate payment in one or several currencies.

Zero Coupon Bonds

Zero coupon bonds are just what they state. They carry no coupon payments or interest payments over the life of the instrument.

Then why does anyone want to purchase these instruments?

The answer is the deep discount at which instruments are sold in the market place. The payment at maturity will be the face value of the instruments; the difference between the purchase price and the repayment value amounting to implicit interest. Therefore, this bond is useful for an investor who wishes to hold the instrument until maturity and avoid frequent reinvestment of interest payment. Some tax advantages may also be available.

Bonds with Warrants

These are fixed rate bonds with a detachable warrant allowing the investors to purchase further fixed rate bonds at a specified rate at or before a specified future date. The investor holding this warrant has the option of holding it until maturity or of selling it in what is called a 'derivative market'.

A derivative market is one in which risk is traded separately from the financial instrument. Example are warrants of course; but besides that we have options- a term you have come across before as also swaps about which you will learn more in the subsequent paragraphs.

The value of the warrant you would agree depends on interest rate movements. If interest rates rise sharply subsequent to the issue of bonds, there obviously will not be buyers to purchase this bond. The value of the warrant then shall become zero.

Convertible Bonds

A convertible bond comprises an ordinary bond plus an option to convert at some date into common stock or some other tradable instrument at a pre-specified price. The

option by the investor shall be exercised only if the market price at the date of conversion is higher than the pre-specified price.

The advantage derived from conversion is likely to eliminate the cost of uncertainty arising from variable exchange rates.

Swaps

Swaps have gained immense importance in the derivative market. This is because swaps allow arbitrage between market, between instruments, and between borrowers without having to wait for the market themselves to cast down the barriers. There are as many different swap arrangements as there are varieties of debt financing and with the volatile exchange rates of the 1980s, demand for them is high

Here we shall describe the basics of two kinds of swaps: interest rate swap and currency swap.

In an interest rate swap, two unrelated borrowers borrow identical amounts with identical maturates from different lender and then exchange the interest repayment cash flow via an intermediary which may be a commercial bank

The currency swap operated in a similar fashion to the interest rate swap but each party becomes responsible for the others currency payments. The currency swap principle can therefore be used by borrowers to obtain currencies form which they are otherwise prevented because of excessive costs or foreign exchange risk

One must remember that the above list of variations on the basic bond market is not exhaustive. With growing uncertainty the number of new instruments also is growing. The nineties will definitely see much newer innovations compared to the eighties. Already, we have instruments like swap options, i.e., options on swaps.

Foreign Capital Flows

With the globalization of financial market private capital has now been moving around the world in search of highest returns. Capital crosses boarder of a country more easily than labor. The growth in the flow of foreign capital has become possible only because investment policies in the western countries have changed to allow higher investments, including portfolio investments abroad. The structural adjustments, following economic reforms, reduction in budget deficits, restructuring of public sector, relaxation of trade

and exchange controls etc., have created a favorable climate for capital inflows into many developing countries like India.

Capital owners are, first and foremost looking for good returns and at the same time they are deeply concerned with risks. The attractions for them are:

- (i) Good in fracture
- (ii) A reliable and skilled lab our force,
- (iii) Guarantees of their right to repatriate both income and capital
- (iv) Social and political stability.
- (v) A tradition of prudent fiscal management and
- (vi) Deep links with global markets.

Foreign capital inflow may broadly be classified into three types

1. Portfolio investment by foreign institutional investors.
2. Direct foreign investments.
3. Capital raised by domestic companies through euro-issues

Portfolio Investment

Foreign Institutional Investment means investment made by foreign institutions such as pension fund, mutual funds, investment trust, Assets Management companies and other specified institutions, in the securities traded on the domestic primary and secondary market. In the case of India, securities include shares, debentures, warrants other schemes floated by domestic mutual funds and other securities specified by the government of India from time to time. These are regarded as portfolio investment from point of view of FIIs since they do not grant them any managerial control.

Although Government of India treats investments in foreign currency convertible bonds and global depository receipt underlying by FIIs direct investment, there are portfolio investment from the point of view of FIIs. These institutions investors make such investment not with a purpose of acquiring any managerial control over Indian companies but with the object of securing portfolio diversification. If investments are made with the object of acquiring managerial control, they are treated as foreign direct investments. Portfolio Investment, that is investment made in securities of different companies and in different countries is made to diversify the portfolio of investment to secure higher returns at the same time minimizing risks.

The investment made by foreign institutional investors thus becomes portfolio investment. The investors make investment in securities of different companies in the same country and indifferent countries; they thus diversify their securities portfolio. Investment no doubt brings returns. But there are risks associated with every investment. Prudent investors know that diversifying their investment across industries leads to lower level of risk for a given level of expected return. It is a well known proposition in portfolio theory that whenever there is an imperfect correlation between return risk is reduced by maintaining only a portion of wealth in any security when securities/assets available for investment are expanding an investors or can achieve a maximum return for given risk or minimum risk for a given expected portfolio return. The broader the diversification, the more stable the return and the more diffusion of the risks.

The advantages of diversification of portfolio of domestic securities are limited because all companies in a country are more or less subject to the same cyclical economic fluctuations. Through international diversification that is, by diversifying investment in securities of companies in different countries, investors can achieve a better tradeoff between return and risk. Country risk and foreign exchange risk, like business risk can be diversifies by holding securities of different countries denominated in different currencies. The benefit of international diversification will increase if the securities portfolio covers not only equities but also bonds.

Instead of buying foreign equities and bonds overseas, investors can buy foreign and bonds in their home market in the form of American Depository receipt (ADR) and Global Depository receipt. ADRs are certificate of ownership issued by U.S. bank in the form of depository receipt representation one or more underlying foreign shares it holds in custody. ADRs for about 825 companies from 33 foreign countries are traded currently on U.S. foreign companies prefer to raise funds in Euro market through Global Depository Receipt (GDR). The modus Operendi for the issue of GDRs is already explained in the chapter on “International Financial Market”.

The easiest way to investing abroad is to buy shares in an international diversified mutual fund. There are four basic categories of mutual funds that invest abroad.

1. Global funds can invest anywhere in the world, including the U.S.
2. International funds invest only outside the U.S.
3. Regional funds focus on specific on specific geographical areas overseas, such as Asia or Europe.
4. A single country funds invest in individual countries such as Germany or Taiwan.

Direct Foreign Investment (DFI)

Balance of payment accountants define direct foreign investment “as any flow of lending to, or purchase of ownership in a foreign enterprise that is largely owned by the residents of the investing company.” The proportions of ownership that define “largely “ vary from country to country.

The most distinguishing feature of DFI is the exercise of control over decision-making in an enterprise located in one country by investors located in another country. Although individuals or partnerships may make such investment, most of them are made by enterprise, a large part by MNCs. We may here note the difference portfolio investment and direct investment. In direct investment the investor retains control over the invested capital. Direct Investment and management go together. With portfolio investment, no such control is exercised. Here the investor lends the capital in order to get a return on it. But has no control over the use of capital.

Direct investment is much more than just a capital movement. It is accompanied by inputs of managerial skill, trade secrets, technology, right⁵ to use brand names and instructions about which markets to pursue and which to avoid. The classical examples of FDI is a multinational enterprise starting a foreign subsidy with 100% equity ownership or acquire more than 50% equity in a domestic company so that it will have control over managerial decisions. Obviously a MNC could not come into existence without having direct investment. These enterprises essentially own or control production facilities in more than one country. At times, the strategy of a multinational is to enter into joint ventures with domestic firms as well as MNC. By such arrangements, divergent resources and skill can be merged. Domestic companies can establish themselves in new markets and gain access to technology. That might not otherwise be available. But one difficulty with joint venture is fogging a consensus with representatives of both companies sitting on the board of directors. We may cite the case of Maruti Udyog a joint venture of Government of India and Suzuki of Japan having differences over the appoint of Managing Director

Guide Lines for Specific Sectors

The preceding paragraphs have listed the general policies and rules that govern the FDI. However, special packages of policies and incentives have been evolved for some key sectors of the economy.

Some of the areas where indicative guidelines have been laid down for maximum FDI contributions are: Power (100 percent), telecommunication services such as basic

telephony and cellular mobile and paging services (49 %), petroleum sector (100%), roads and highways (100%) and tourism (100%).

Enhancement of Foreign Equity in Existing Companies

An existing company engaged in manufacture of items included in the priority, which have foreign holding less than 74%/51%/50%, may also increase its foreign holding to the allowed level as part of its expansion programme, which should relate to the priority sector items. The additional equity should be part of the financing of the expansion programme and the money to be remitted should be in foreign exchange.

It is not necessary that the company should be exclusively engaged in the priority sector activities specified, only the proposed expansion must relate exclusively in high priority industries may increase its foreign equity to the maximum allowed level without any expansion programme. The increase in the equity level must result from expansion of the equity base of the existing company and the additional equity must be from remittance of foreign exchange

The proposals meeting the above conditions can be submitted to the RBI for automatic approval. Other proposals for inducting or raising foreign equity in an existing company, will be subject to prior approval of the Government and should be addressed to the SIA.

An application for raising foreign equity in an existing Indian company has to be accompanied by a board resolution and approval by the shareholders of the company through a special resolution for preferential share allocation to foreign investors. Every preferential allotment of shares by companies other than allotment of shares on a right basis, by listed companies to foreign investors will be the market price of the shares according to SEBI guidelines

Foreign investment in EPZs/EOUs

In the case of export processing zones (EPZ) units/100% oriented units foreign participation may be up to 100% of equity. In the case of units set up in EPZs, the respective Development Commissioner Grants approvals, while for 100% EOUs approvals are granted by the SIA.

Majority foreign equity holding up to 51% Equity is allowed by the RBI for trading companies primarily engaged in export activities. Such trading companies will be treated

on a par with domestic trading and export housed in accordance with the extent Export/ Import policy and the company will have to register itself with the Ministry of commerce as registered exporter/importer.

In case of existing companies, already registered as an export house, a trading house or a star trading house, the RBI will give automatic approval for foreign Investment up to 51 per cent equity, subject to the provision that the company passed a special resolution for preferential allocation of fresh equity to the foreign investors.

Foreign investment in SSI sector

To provide access to the capital market and to encourage modernization and technological up gradation in the small scale sector, foreign equity participation to the extent of 24 percent of the total share holding has been allowed.

The policy on the opening of branches by foreign companies has been liberalized. Foreign companies engaged in manufacturing and trading activities abroad are permitted by the RBI to open branch offices India for the purposes of carrying on the following activities:

- (a) To represent the parent company/other foreign companies in various matters in India, For example, acting as buying/selling agents in India;
- (b) To conduct the research work in which the parent company is engaged provided the result of the research work are made available to the Indian companies;
- (c) To undertake export and import trading activities;
- (d) To promote technical and/or financial collaboration between Indian companies and overseas companies.

Short-Term Capital Flows

Besides the long-term capital flows in the forms of direct and portfolio investments abroad, there is a flow of capital among nations for a short period as well. These flows take the forms of export credit and loans, Imports debts, banks deposits, and commercial papers held abroad, foreign currency holdings and obligations, etc., Incidentally, you may note that the difference between long term and short term capital flow is one the basis of instruments rather than the intentions of the investor

The short- term capital flows across nations take place due to a variety of factors. Further, the determinant of these flows depends on the type of the flow. In order to explain

their determinants, it is convenient to divide the short-term flow into three categories, viz, trade capital, arbitrage and speculative. The motives behind each of these flows and their determinants are explained below.

Trade Capital

Exports and imports are negotiated both on down payments as well as on credits. When down payments are made, bank deposits in exporting country's currency increase while those in importing countries currency decrease. In the case of transactions on credits, accounts a receivable /payables increase. Since these accounts are usually payable within one year they are included in short term capital flows. The volume of trade capital obviously varies directly with the magnitude of merchandise trade, and the credit relationships between trading partners.

Arbitrage

Under arbitrage, individuals and institutions buy one currency and sell other currency with the sole objective of making profits without taking any risk. The opportunities for such profits arise due to two factors. One, spot exchange rates are not quite consistent in all the worldwide markets. Two, the difference between spot rates and forward rates is not always consistent with the interest rate differentials in different markets. To see the gains from arbitrage under these two conditions; we take one example for each case.

Suppose spot rates in three markets were as follows:

Frankfurt L/DM: 0.20

New York \$/DM: 0.40

London \$/L: 1.90

The arbitrageur (trader) sells US dollars, say, in amounts of \$ 1.9 million and buys British pound in the of L 1million in London. He then sells his L 1million and buys Deutsche mark (DM) in the amount of DM 5million in Frankfurt. Finally he sells his DM 5million for \$2million in New York. Through this process, he makes a profit of \$0.1 million, gross of transaction cost, without taking any foreign exchange risk. Needless to say, such an opportunity arises because the exchange rate in the three markets is not quite consistent. If the exchange rate in London were $\$2=L1$, there would be no scope for such an arbitrage.

Relationship between the spot and forward rates and the interest rates in the two countries whose currencies are involved in these exchange rates.

$$I\$ - iL = F - S/S$$

Where $I\$$ = interest rate in USA

Where iL = interest rate in UK

Where F = forward rate ($\$/L$)

Where S = sport rate ($\$/L$)

If the interest and exchange rates are not consistent to this theorem, there is a scope for arbitrage. For example, if

$I\$ = 15\%$, $iL = 10\%$, and $S: \$2 = L1$.

Then F must be given by $0.15 - 0.10 = F - 2/2$ or $F = 2.10$

However, if actual F is such that $\$2.15 = L1$. Then the arbitrageur could make profit by borrowing pound at 10% SELLING THEM FOR DOLLAR AS $s: \$2 = L1$ depositing the dollar proceeds at 15% and eventually selling dollars in the forward market at $F = 2.15$. Through this process, the trade would make a profit at the rate of \$0.05 per pound minus his transactions cost, if any.

Opportunities of the above two types do sometimes exist and thus there are international financial flows through arbitrage as well. The magnitude of such an arbitrage depends inversely on the level of efficiency of international markets. As the information system become more perfect and prompt through the international computer network round the clock the scope for arbitrage will become small and short-lived. However to the extent government intervene in the determination of the exchange and interest rates, arbitrage could continue at least upto a certain extent.

Speculative Flows

Speculative flows of capital take place across countries with the sole objective of making money through deliberate understanding of foreign exchange risk. Since the breakdown of the Britton Woods system in 1971, exchange rates have been fluctuating widely and this had given rise to significant speculative flows of capital. Speculators buy currencies, which they expect to appreciate and sell those, which they expect to depreciate. These transactions are of course, subject to government regulations.

The magnitude of speculative flows depends directly on the variability of exchange rates, and the ability and attitudes of speculator towards risks. When the exchange rates were relatively stable until 1971, speculative flows were very much limited.

With the increased variability of exchange rates and the enormous profits that the speculators in foreign exchange have made the scope for such transactions has increased manifold and the trend is expected to continue in future, nevertheless, it must be noted that these speculations are perhaps the most difficult and this profession has attracted the best brains

Before we close this section, it must be noted that there are multilateral institutions like the World Bank, International monetary fund and Asian development bank, which advance loans, and regulate foreign exchange rates and international liquidity among other activities. Transactions between these organizations and nations are also components of the above-mentioned international financial flows

Special Features of Service Marketing

- (1) Services are intangibles and cannot be standardized or reproduced in the same form. They are customer need based and unique.
- (2) Both supplier of services and consumers should have a rapport, willingly understand each other and cooperate through meaningful dialogue and effective communications.
- (3) Services are dominated by human element and quality counts. But quality cannot be homogenized, "It will vary with time, Place and customer to customer."
- (4) Inventories cannot be created. Services are immediately consumed and marketing and operation are closely interlinked.

Vendors of services should have a track record of integrity, reputation for quality and timeliness of delivery. More than media advertisement, the best advertisement for them is the mouth to mouth word of satisfied customers, and building of corporate image of the vendors, rather than their presentations, oral assurances to the vendors. The first best market strategy is thus a satisfied customer. The second strategy is to maintain quality, human approach, appearances and courtesies of the personnel and the available infrastructural facilities for them. Thirdly service counts in terms of how it is priced and how it is cost effective for the customer and for the vendor each.

Integration of Markets

Business houses no longer restrict themselves to domestic sources of financing. The search for capital does not stop at water edge, with the pursuit of policies for liberalization and globalization; the distinction between domestic and foreign financial markets is becoming increasingly blurred. With the lifting of regulatory systems in 1980s that inhibit competition and protect domestic markets the world had become one vast connected market.

In international finance centers or markets, the type of transactions occurring is: (i) between foreign lenders and domestic borrowers; (ii) between domestic lenders and foreign borrowers; (iii) between foreign lenders and foreign borrowers. The third types of transaction are called entrepot or offshore transitions. In this case the financial centers merely provide facilitation services for foreign lending and borrowing.

Until the development of the euro market in late 1950s international financial centers were principal supplier of capital to foreign borrowers. In the post 1960-euro market, entrepot type and offshore financial transactions became increasingly predominant. Hence the traditional nature to financial centers was altered radically. With the internationalization of credit transactions, it was no longer necessary for an international center to be a net supplier of capital. Thus small and relatively unknown parts of the world became important banking centers- Nassau, Singapore, Luxembourg etc., The world's financial centers as a group provide three types of international services

- (1) Traditional capital exports,
- (2) Entrepot financial services, and
- (3) Offshore banking.

The traditional financial centers were net exporters of domestic capital. This function has been performed through foreign lending by commercial banks, the underwriting and placement of marketable securities for foreign issuers for foreign issuers and the purchase of notes and obligations of non-resident entities of domestic investors in the secondary markets

Offshore banking is a special kind of business of entrepot financial center. It is financial intermediation performed primarily for non- resident borrowers and depositors. It refers to international banking business involving non-resident foreign currency- denominated assets and liabilities. Its confines to the banking operations of non-residents and does not mix with domestic banking. But the domestic financial market is well insulated from

offshore banking activity by an array of capital and exchange controls. Offshore banking is carried in about 20 centers through tout the world. It offers benefits like exemption from minimum cash reserve requirements, freedom from control on interest rates, low or non-existence taxes and levies, low license fee etc., Offshore banking units are branches of international banks. They provide project-financing syndicated loans, issue of short-term and medium term instrument Etc.,

Role of Financial Intermediaries

The role of financial institution is to provide intermediation between financial and real sector and savers and investors and promote capital formation and economic growth. The study of the national balance sheet shows that over any period, how the ratio of financial assets to total assets has been growing. This ratio is one of the indicators of economic growth.

Over the planned period in India, this indicator has been rising, as reflected in the ratio of financial assets total assets, attributed to expanded role of public sector during 1950 to 1990 and large capital investments in capital intensive projects. But more importantly there was more active financial intermediation and widening and deepening of the financial system in terms of range of financial instruments and magnitude of funds raised. During Nineties and later, the importance of financial sector increased due to ongoing economic and financial reforms, privatization, regulation and globalization.

The various financial institutions which trade in these stocks and capital markets are all-India financial institutions like IFC, ICICI and IDBI and various SFCs for which the apex institutions is the IDBI.I institutions which issue primary securities to collect the savings from the public directly are UTI,GIC,LIC, etc., They collect savings of the public directly in the form of units or premiums. These are called investment institutions. More recently some public sector banks such as SBI Indian bank, bank of India, canara bank, etc., have started their mutual funds, as also the LIC and GIC. These are also part of the stock and capital market. These institutions trade and invest in these markets. The securities traded by them may be the claims of the government or of the private corporate sector. The securities traded by them any be the claims of the government or of the private corporate sector.

The all- India institutions and state financial institutions like the ICICI, IFC or SFCs, etc., raise resource directly from the public in the form of deposits or by issue of bonds/debentures. They may also borrow from the bank and other financial institutions as also from the RBI. These are called Development Corporations. The use of their funds is

investments in corporate shares, securities and bonds/debentures and loans and advances to corporate units. More recently an number of new finance companies have cropped up newly lease finance, house finance, etc., The range of instruments offered to the public has accordingly widened and the capital market has been deepened and broadened enormously in recent years.

Savings and investment

The household sector is the major saver in India and contributors to the bulk of the total savings that flow into financial asset which may take any of the forms of currency, deposits with banks and companies, PF, insurance and corporate shares, Bonds, etc.,

In addition to providing liquidity to investments, the stock and capital markets promote mobilization of savings and canalize them into investment. As already referred to the major borrowers are government and business sectors in the economy, which invest more than they save. The net savings flow from the household and foreign sectors. The financial system helps the process of institutional of these savings for promoting investment and production in the economy. The financial intermediaries play a crucial role in the stock and capital markets in the India. The importance of underwriting of share and stock-broking activities of brokers and dealers is to be appreciated in this context, as brooklets are financial intermediaries like banks and financial institutions.

Interest Rate Structure

The government and RBI fix the Interest rates paid on these various securities. The reserve bank and the others fix the bank rate and other interest rates as applicable to the banks by the government in consultation with the RBI. In India, the interest rates are administered and all the rtes in the organized financial system are controlled. The peculiar feature of the structure is that interest rated does not reflect the free market forces nor do they reflect the scarcity value of capital in the economy. Most of these rates are determined on an adhoc basis, in tune with the exigencies of monetary and credit policy or fiscal policy or fiscal policy. Normally interest is a reward for risk and return for abstaining from present consumption. In India, certain priority sectors like borrowings by the government and operations of agriculture, exports and other priority sectors are financed at confessionals rates on considerations. Other than risk/return. More recently there has been some regulation of the financial system and many interest rates have been freed from controls. These and other details are discussed.

Capital Market

As referred to earlier, in the category of financial institutions there are some which issue primary securities. Besides the corporate sector which issues primary securities in the form of new issued and further issues there are also financial institutions like LIC and GIC, which sell insurance certificate for collecting the savings from public directly. They also collect the premiums and mobilize savings of the public. They also collect the premiums and mobilize savings of the public. These funds are mobilized for channeling them ultimately into the stock and capital markets. The brokers, banks and the financial institutions referred to above are all intermediaries operating in the primary and secondary markets.

In the primary markets, the brokers act as underwriter's managers, registrars and even merchant bankers to the new issues. In the secondary market, the claims of a long-term nature of one year and above are traded both on spot or forward basis. This trading imparts liquidity to investments and thus promotes savings and investment. These financial intuitions can only change the velocity of circulations of money, while dealing in the primary and secondary markets, but the banks can influence both creation of money and its velocity.

The RBI has linkage with banks and other financial institutions through its control and finance functions and provisions of cash and currency. Beside the money markets trades in claims on money of varying maturities of a few days to a few years. The trading in the money claims is what constitutes the financial system, controlled by the RBI and is called the organized financial system. Banks have linkages with both brokers and dealers in securities through the credit limits granted to them and through their operations in the primary and secondary markets.

Self-Asseement Questions

1. How Does International Financial Market Differ From Domestic Financial System?
2. Explain The Concept Of Financial Market?
3. Describe The Globalisation Of Financial Markets?
4. What Are The Recent Changes In Global Financial Markets?
5. What are the different other foreign markets?
6. Explain briefly the origin and growth of Eurodollar Market?
7. What are the different types of Euro Finance?

8. Explain the following short questions.
 - a. American Depository Receipt (ADR)
 - b. Global Depository Receipt (GDR)
9. What are the recent Innovations in financial Instruments?
10. What are the different financial instruments in the financial markets?
11. Describe the concept of foreign capital flows?
12. What is the classification of foreign capital?
13. Explain the following short Questions?
 - i) Direct Foreign Investment (DFI)
 - ii) Investments in SSI Sectors
 - iii) Arbitrage
14. What are the role financial intermediaries?
15. Explain the concept of Integration of Markets?
16. What are the special features of services Marketing

UNIT – IV

Foreign Exchange Markets

Learning Objectives

After reading this unit you can be able to understand

- The Foreign Exchange Markets
- Determination of exchange rate system
- The various factors involve in the exchange rate

Introduction

Most countries have their own currencies, and when people in different countries do business with each other, an exchange of currencies must take place. For example, suppose you're vacationing in London and you walk into a pub and order a pint of ale. No bartender in Britain is going to let you pay your tab in dollars -- you're going to have to get a hold of some British pounds sterling. More generically, you're going to have to get a hold of some foreign exchange.

Foreign Exchange

All currencies other than the domestic currency (in our case, all currencies other than the dollar). The foreign exchange market refers to any and all places where different currencies are traded for one another.

Forex Quotes

Rate	Bid/Ask	High	Low
EUR/USD	1.2535 / 38	1.2548	1.2525
USD/JPY	118.99 / 03	119.16	118.92
USD/CHF	1.2699 / 04	1.2715	1.2690
GBP/USD	1.8627 / 32	1.8644	1.8609

AUD/USD	0.7545 / 49	0.7550	0.7527
USD/CAD	1.1373 / 78	1.1391	1.1359
EUR/JPY	149.18 / 22	149.37	149.12

Exchange Rate

The price of one country's currency in terms of another country's currency; the rate at which two currencies are traded for another. -- Exchange rates for all of the world's major currencies are listed daily in the *Wall Street Journal*.

American Dollar

	1 USD	in USD
Australian Dollar	1.32679	0.753699
Brazilian Real	2.132	0.469043
British Pound	0.537461	1.8606
Canadian Dollar	1.1384	0.878426
Chinese Yuan	7.912	0.12639
Danish Krone	5.9542	0.167949
Euro	0.79885	1.2518
Hong Kong Dollar	7.7837	0.128474
Indian Rupee	45.35	0.0220507
Japanese Yen	119.25	0.00838574
Malaysian Ringgit	3.682	0.271592
Mexican Peso	10.833	0.0923105
New Zealand Dollar	1.51906	0.658302
Norwegian Kroner	6.7749	0.147604
Singapore Dollar	1.5843	0.631194
South African Rand	7.5225	0.132935
South Korean Won	955.2	0.0010469
Sri Lanka Rupee	106.78	0.00936505
Swedish Krona	7.3957	0.135214
Swiss Franc	1.2715	0.786473
Taiwan Dollar	33.23	0.0300933
Thai Baht	37.4	0.026738
Venezuelan Bolivar	2144.6	0.000466287
<i>using values from Monday, October 16, 2006</i>		

— [We saw a currency-rates table from x-rates.com. It showed exchange rates between the dollar and several foreign currencies.]

— Ex.: On March 17, 2003, the U.S.-Canadian exchange rate was 67.57 U.S. dollars per Canadian dollar (i.e., a Canadian dollar costs you 67.57 cents), or 1.4799 Canadian dollars per U.S. dollar.

A note on usage: The term “exchange rate” has probably generated more confusion than any other term in economics (no small feat). When economists talk of “the exchange rate,” it’s often unclear which exchange rate they’re talking about. To be more precise, identify what currency you’re talking about:

- ▶ The dollar’s exchange rate = price of a dollar in terms of a foreign currency
- ▶ The foreign exchange rate = price of a foreign currency in terms of dollars -- Note that each one is the reciprocal ($1/X$) of the other

A still-better idea is to avoid the term “exchange rate” altogether. Instead, we can talk of currency appreciation and depreciation. Namely,

- ▶ A currency APPRECIATES when it increases in value (i.e., it becomes more expensive, it purchases more foreign currency).
- ▶ A currency DEPRECIATES when it decreases in value (i.e., it becomes cheaper, it purchases less foreign currency).

To further avoid vagueness, don’t say «the exchange rate appreciates» -- say «the dollar appreciates.»

Extra Question

You are in Tokyo and need to purchase some yen quickly, and decide you will get it from one of the two nearby currency dealers. The first one quotes you a price of 125 yen per dollar. The second one quotes you a price of 0.0084 dollar per yen. Which one is offering you the better deal? Back up your answer with numbers.

Ii. Currency Conversions

To know how much an item produced in one country will cost in another country’s currency (i.e., as an import or to a tourist), you need to change the unit of account (e.g.,

dollars, francs) by performing a currency conversion.

For any good or service produced outside the U.S., the price in dollars is:

$$P_{\text{in dollars}} = P_{\text{in foreign currency units}} * \text{dollars}/(\text{unit of foreign currency})$$

For any good or service produced in the U.S., the price in terms of foreign currency is:

$$P_{\text{in foreign currency units}} = P_{\text{in dollars}} * (\text{units of foreign currency})/\text{dollar}$$

The key is to get it into the right unit of account -- on the right-hand side of the equation, the other currency units should cancel out.

— Ex.: (Suppose the dollar trades for 0.6847 British pounds, and 1 British pound trades for 1.4606 dollars.)

Q: How much would a Cadbury chocolate bar (made in Britain) that sells for one British pound go for in U.S. dollars?

A: $P_{\text{in dollars}} = P_{\text{in pounds}} * \text{dollars}/\text{pound} = 1 \text{ pound} * 1.4606 \text{ dollars}/\text{pound} = 1.4606 \text{ dollars}$ (or \$1.4606)

— (Note how the pound units just drop out of the equation, as the units term becomes [pound*dollar]/pound = dollar.)

— Ex.: Q: How much would a \$10 bottle of California wine cost in Japan?

A: (From the “Currency Trading” table, we can see that 1 dollar trades for 118.46 Japanese yen, and 1 Japanese yen trades for .008442 dollars. Now we just need to plug the appropriate one of those numbers — the yen-per-dollar ratio — into the formula.)

$$P_{\text{in yen}} = P_{\text{in dollars}} * \text{yen}/\text{dollar} = 10 \text{ dollars} * 118.46 \text{ yen}/\text{dollar} = 1184.6 \text{ yen}$$

— (Note how the dollar units drop out of the equation.)

III. Returns on International Assets

When international investors consider whether to invest in one country or another, they must take into account not only the nominal returns on investments in the different countries, but also the exchange rates and how they might change over time. The real return involves two currencies, not one -- for example, if you are an American who is investing in European stocks, a depreciation of the euro relative to the dollar would lower the return on your investment, just as higher inflation in Europe would lower the real return for a European who has invested in European stocks.

--> **The relevant return for an international investor is the (real, after-tax) return after all currency exchanges have taken place.**

— **For U.S. holders of foreign assets, the real return is higher if the foreign currency appreciates against the dollar. RET on foreign asset held by an American**

= nominal RET on asset + appreciation of foreign currency

= nominal RET on asset - appreciation of U.S. dollar

— **For foreign holders of U.S. assets, the real return is higher if the dollar appreciates against the foreign currency. RET on U.S. asset held by a foreigner**

= nominal RET on asset + appreciation of U.S. dollar

= nominal RET on asset - appreciation of foreign currency

The rate of appreciation of a currency is calculated as a percent change. The dollar's rate of appreciation, for example, would be:

$$\text{appreciation of dollar} = \frac{(\text{New } P_{\text{dollar}}) - (\text{Old } P_{\text{dollar}})}{\text{Old } P_{\text{dollar}}} * 100\%$$

$$= \left\{ \frac{\{\text{New } P_{\text{dollar}}\}}{\{\text{Old } P_{\text{dollar}}\}} - 1 \right\} * 100\%$$

Ex.: At its inception in January 2000, the euro traded at a rate of 1.15 U.S. dollars per euro. In March 2003, it cost 1.10 U.S. dollars per euro. The euro's total rate of appreciation

$$= \left\{ \frac{\{1.10\}}{\{1.15\}} - 1 \right\} * 100\% = (.957 - 1) * 100\% = (-.043) * 100\% = -4.3\%$$

If an American purchased Volkswagen (German) stock in January 2000 and earned 15% (in euro terms) between then and March 2003, his total return, net of currency exchanges, would be

15% + (-4.3%) = 10.7%, which is somewhat less. For American holders of foreign assets, the real return is less if the foreign currency depreciates against the dollar.

(Aside: You could calculate the *annualized*, or yearly, rate of appreciation of the euro by taking that first ratio (the euro's new exchange price divided by its old exchange price) to the power of $1/n$, where n is the number of intervening years. In this case, it was 3 years and 2 months, so $n = 3 + 2/12 = 3.17$.

Formula

$$\text{Annualized appreciation of euro} = \left\{ \left[\frac{\text{New } P_{\text{euro}}}{\text{Old } P_{\text{euro}}} \right]^{(1/n)} - 1 \right\} * 100\% \text{ --}$$

Applied to above Example

$$\text{Annualized appreciation of euro} = \left\{ \left[\frac{1.10}{1.15} \right]^{(1/3.17)} - 1 \right\} = \left\{ (.957)^{(1/3.17)} - 1 \right\} = .986 - 1 = -.014 = -1.4\%$$

Cross Currency Rates

	 USD	 GBP	 CAD	 EUR	 AUD
	1	1.8606	0.878425	1.25179	0.753698
	0.537461	1	0.472119	0.672793	0.405083
	1.1384	2.1181	1	1.42504	0.85801
	0.79885	1.48634	0.70173	1	0.602092
	1.32679	2.46862	1.16548	1.66087	1

Monday, October 16, 2006

Foreign Exchange Markets

Foreign Exchange Market is the framework of individuals, Firms, Banks and Brokers who buy and sell foreign currencies. The foreign exchange market for any one country. Example, the France franc, consists of all the locations such as Paris, London, New York, Zurich, and Frankfurt and so on. The most important foreign exchange market are found in; London, New York, Tokyo, Frankfurt, Amsterdam, Paris, Zurich, Toronto, Brussels, Milan, Singapore and Hang Kong.

The Players of Foreign Exchange Market

The main participants in the market are Companies and individuals, Commercial banks, central banks and Brokers. Companies and individuals need foreign currency for business or travel purposes. Commercial banks are the source from which companies and

individuals obtain their foreign currency. There are also foreign exchange brokers who bring buyers and sellers and banks together and receives commissions on the deals arranged. The other main players obtaining in the market in the central bank, the main part of whose foreign exchange activities involves the buying and selling of the home currency or foreign currencies with a view to ensuring that the foreign exchange rate moves in line which established targets set for it by the government. There are numerous foreign exchange market centers around the world but dealers in different locations can communicate with one another via the telephone, telex and computers.

Foreign Exchange Instruments

Spot Transaction

A spot foreign exchange transaction is the exchange of one currency for another, at the spot (or today's) exchange rate. Although the exchange rate is agreed at the time of the transaction, market convention dictates that the exchange of funds (settlement) will occur two business days later (the spot date).

Forward Transaction

A forward transaction is identical to a spot transaction, except that the settlement date (and the exchange of currencies) is more than two business days ahead. The forward transaction allows each party to lock in a known forward exchange rate today, with the outright exchange of currency amounts occurring at a future date.

Foreign Exchange Swap Transaction

A foreign exchange swap (FX swap) is an agreement to exchange two currencies at the Current spot date and to reverse the transaction at a specified future date. In fact, an FX swap is equivalent to a spot transaction and an offsetting forward transaction rolled into one. Entering into an FX swap is equivalent to borrowing in one currency and lending in another, allowing management of cross-currency cash flows. The FX swap market can be a more efficient way of borrowing and lending currency amounts than using the relevant currency money markets directly. FX swaps carry no currency exposure because the exchange rate on the spot date and at the future settlement date is fixed at the time of the transaction. Globally, FX swaps continue to be the most heavily traded FX instrument. A significant reason for this is due to market players' preference to repeatedly transact short term FX swaps rather than transacting one longer maturity swap.

Currency Options

A currency option gives the holder the right, but not the obligation, to buy or sell one currency against another at a specified exchange rate, over a specified period. Most

Currency options are 'over-the-counter', meaning they are written by financial institutions to meet the exact needs of the option buyer.

FXTrends: Currency Exchange Trends

This table displays the change (trend) in currency exchange rates for the top most traded currencies.

Tuesday, Oct 10, 2006		Change Compared to			
Currency Pair	Current Rate	Previous Day	Last Week	Last Month	Last Year
EUR/USD	1.2600	↓-0.02 %	↓-0.63 %	↓-0.84 %	↑3.98 %
GBP/USD	1.8684	↓-0.16 %	↓-0.24 %	↓-0.14 %	↑6.09 %
USD/JPY	119.091	↑0.05 %	↑0.73 %	↑2.21 %	↑4.56 %
USD/CHF	1.2610	↑0.03 %	↑0.80 %	↑1.28 %	↓-1.37 %
USD/CAD	1.1252	↓-0.06 %	↑0.60 %	↑1.04 %	↓-4.18 %
EUR/GBP	0.6745	↑0.07 %	↓-0.42 %	↓-0.69 %	↓-2.06 %
EUR/JPY	150.032	↑0.03 %	↑0.14 %	↑1.34 %	↑8.74 %
GBP/JPY	222.495	↓-0.09 %	↑0.50 %	↑2.06 %	↑11.01 %
EUR/CHF	1.5886	↑0.02 %	↑0.20 %	↑0.41 %	↑2.49 %

How to Read this table

Each line shows the percentage change in the value of the currency exchange rate relative to the value of the day before, 7 days before, 30 days before, and 365 days before, respectively. Currency Rate shows the exchange rate for selling the currency pair. For example EUR/USD=0.972 means 1 EUR = 0.972 USD. Arrows indicate the direction of the change.

Importance of Foreign Exchange

1. Foreign Exchange is the system or Process of converting one national currency into another, and of transferring money from one country to another.

2. Foreign Exchange is used to refer to foreign currencies. For example The Foreign Exchange Regulation Act, 1973 (FERA) define:-

Foreign Exchange has foreign currencies and includes all deposits, credits and Balance of Payments in any foreign currency and any drafts, traveler's cheques, letter of credits and Bills of exchange, expressed or drawn in Indian currency, but payable in any foreign currency.

Generally, in our country we make payments for our purchases in coins or notes. When the amount is big we pay through a cheque on some local bank. If we want to remit money to distant places we may issue a cheque or send a bank draft. But, if we have to make payments to a foreigner say, in New York, we shall have to call our banker to change our rupees into dollars, and remit them to New York. This change of rupees into dollars (or any other currency) and vice versa is called Foreign Exchange.

Methods of Foreign Payments

1. Gold / Silver
2. Bank Drafts: International payments may be made by means of cheque and Bank drafts.
3. Foreign Bills of Exchange: "A bill of exchange is an unconditional order in writing, addressed by one person to another, requesting the person to whom it is addressed to pay a certain sum on demand or on a specified future date "(Inland Bill –Due for the payment is calculated from the date of which it was drawn; Foreign bills –date on which the bill was accepted.)
 - a. Sight Bill which is honored on presentation.
 - b. Short Bill which is payable within 10 days.
 - c. Long Bill which matures with 90 days.
4. Telegraphic Transfers: A sum can be transferred from a bank in one country to a bank in another part of world by cable or telex. It is the quickest method of transmitting the funds.
5. Documentary (or reimbursement) credit:- Transfer bills i.e. Bill of lading, Letters of Credit.

Exchange Rate

The rate which refers to the demand for the supply of a currency is the external value of it. It measures the number of units of one currency which exchange, in the foreign exchange market for one unit of another. E.g.; suppose £1 exchange for \$2 that is £1= \$2 just as a commodity is sold and purchase in the market for some price.

Importance of Exchange Rates

1. Exchange rates establish relationships between the different currencies or monetary units of the world.
2. Exchange rates have been instrumental in developing international trade. These have considerably increased the tempo of international investments.
3. They provide a direct link between domestic prices of commodities and productive factors and their prices in the rest of the world.
4. With the prices at home and abroad at a given level, a low rate of exchange will hamper imports and stimulate exports, and thereby tend to bring about a balance of payment surplus.

Floating Rate of Exchange

Floating rate which is allowed to fluctuate freely according to supply and demand forces. Such float is Free Float if no intervention takes place by the central bank of the country. In the real world some degree of intervention exists which leads to a managed float, such managed floats are either single or joint. Dollar, Sterling and Yen were floating with varying degree of intervention within a band of 2.25% on either and they are singly floats. The European common market countries (Germany, France, Belgium, Netherlands, Luxemburg, Ireland, Denmark and Sweden) are under a joint float within a narrow bank called "Snake in the Tunnel". The new IMF policy is to keep relatively stable exchange rates within a wider band of fluctuations. Indian rupee is kept relatively stable with the help of a basket of Currencies up to July 1991. When the rupee was devalued and **LERMs** was adopted later. (**Limited Exchange Rate Management System**).

Fixed Vs. Flexible Exchange Rate

Exchange rate stability has always been the objective of monetary policy of almost all countries. Except during the period of the Great Depression and World War II, the

exchange rates have been almost stable. During post-war II period, the IMF had brought a new phase of exchange rate stability. Most governments have maintained adjustable fixed exchange rate till 1973. But the IMF system failed to provide an adequate solution to three major problems causing exchange instability, viz.,

- (i) Providing sufficient reserves to mitigate the short-term fluctuations in the balance of payments while maintaining the fixed exchange rates system;
- (ii) Problems of long-term adjustments in the balance of payments; and
- (iii) Crisis generated by speculative transactions.

As a result, the currencies of many countries, especially the reserve currencies were subject to frequent devaluation in the early 1970s. This raised doubts about the continuation of the Bretton Wood System, and also the viability of the fixed exchange rate system. The breakdown of Bretton Wood System generated a debate on whether fixed or flexible exchange rate. Let us briefly describe the main arguments in favour of fixed and flexible exchange rates.

Arguments for Fixed Exchange Rate

The **first** argument in favour of fixed exchange rate is that it provides stability in the foreign exchange markets and certainty about the future course of exchange rate and it eliminates risk caused by uncertainty. The stability of exchange rate encourages international trade. On the contrary, flexible exchange rate system causes uncertainty and might also often lead to violent fluctuations in the international trade. As a result the foreign trade oriented economies become subject to severe economic fluctuations, if import-elasticity is less than export elasticity.

Secondly, fixed exchange rate system creates conditions for smooth flow of international capital simply because it ensures continuity in a certain return on the foreign investment, while in case of flexible exchange rate; capital flows are constrained because of uncertainty about expected rate of return.

Thirdly, fixed rate eliminates the possibility of speculations, where by it removes the dangers of speculative activities in the foreign exchange market. On the contrary, flexible exchange rates encourage speculation. As mentioned earlier in this chapter, there is controversy about the destabilizing effect of speculation. But, if speculators buy a currency when it is strong and sell it when it is weak, speculation will be destabilizing.

Fourthly, the fixed exchange rate system reduces the possibility of competitive depreciation of currencies, as it happened during the 1930s. The possibility has been further strengthened by the IMF rule for the member nations. Also, deviation from the fixed rates is easily adjustable.

Finally, a case is also made in favour of fixed exchange rate of the basis of existence of currency area. The flexible exchange rate is said to be unsuitable between the nations which constitute currency area, since it leads to chaotic situation and hence hampers trade between them.

Advantages of Basked Currencies

With the existing system of exchange controls in India, a free floating rupee was out of question in the eighties. The rupee is not strong enough to with stand the speculative onslaughts. Our trade would have suffered. Alternatives left to the monitory authorities in India were therefore to link it with \$ or L a combination of some major currencies like the SDR. Since both \$ and L were having their own problems, the choice has fallen on a basket of currencies but unlike the 16 major currencies in the case of SDR, at that time only 5 major currencies having good trade connections with India in 1975 were chosen in its basket.

The SDR valuation would have been unrealistic for India as some of the currencies represented in SDR have no relations with India's trade. The basis of SDR valuation was itself changed to a bag of 5 currencies in 1981. It was felt that it would be advantageous for India to link the rupee to a mix of currencies properly weighted as this would give greater stability and more certainty so that India's trade and investment abroad would not suffer. The import bill and debt servicing burder are heavy for India and it would be necessary to have relative stability in the exchange rate. The fact that moderate depreciation took place in effect as against \$ DM etc. would have probably helped our export trade in particular.

Present Exchange Rate System

With the initiation of economic and financial reforms in July 1991, for reaching changes were introduced in the Foreign exchange policy and exchange rate management. FERA was diluted and banks have been allowed greater freedom of lending and their deposits and lending rate have also been freed to a large extent. Foreign exchange release is mostly left to the banks, for many purposes, subject to an upper limit for each purpose. Rupee was made partially convertible first in 1992 followed by full convertibility on trade account in 1993 and thereafter full convertibility on current account inclusive of invisible

account in 1994. The era of decontrol on Foreign exchange has started with these reforms. We have now a system of exchange rate management adopted by the RBI since 1994 and the FERA was replaced by FEMA in the year 2000.

Exchange Rates in India

The table below gives TT rates of various currencies in terms of rupees. TT means telegraphic transfer which is next best means and quickest method of transferring fund from one currency to another currency. It is next to physical delivery of currency on spot. The rates for TT buying and selling for major currencies in the world are given in terms of rupees for each of the foreign currency units. The margin between buying and selling rate is the profit to the whole seller.

PUBLIC EXCHANGE RATES						
Date :	25-Sep-06					Value Date
Currency Code	Bank Selling Rate	Bank Buying TT	Bank Buying TC's	Bank Buys cash	Bank Sells cash	27-Sep-06 MID
GBP	12.3265	11.8455	11.6705	11.4980	12.6963	12.0860
USD	.1545	.1610	.1635	.1660	.1499	.1578
EUR	8.2855	8.0425	7.9236	7.8065	8.5341	8.1640
ZAR	1.1765	1.2240	1.2425	1.2610	1.1285	1.2003
AUD	.2052	.2136	.2168	.2201		.2094
HKD	1.2030	1.2520	1.2708	N/A		1.2275
INR	7.09	7.38	7.49	N/A		7.23
JPY	17.96	18.70	18.98	N/A		18.33
NOK	1.0148	1.0566	1.0724	N/A		1.0357
NZD	.2314	.2412	.2448	.2485		.2363
SEK	1.1193	1.1653	1.1827	N/A		1.1423
CAD	.1725	.1796	.1823	.1850		.1761
CHF	.1904	.1982	.2012	.2042		.1943
DKK	.8999	.9321	.9461	N/A		.9160
ZWD	38.65	N/A	N/A	N/A		N/A
Other Financials		Bid	Ask			
USD/ZAR		7.6119	7.6120			
EUR/USD		1.2816	1.2817			
GBP/USD		1.9065	1.9069			
USD/JPY		116.22	116.24			
GOLD		590.40	591.40			
Please Note :						
1/. Valid for amounts less than P 100,000.						
2/. An authority number will be allocated to branches for Special Rates. (Above P100 000.00)						
3/. Foreign notes for those currencies marked N/A , may no longer be purchased as there is no demand for the resale thereof.						
4/.Bank charges and commissions have not been allowed for.						
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Foreign Exchange Market

The foreign exchange market is an informal arrangement of the larger commercial banks and a number of FOREX brokers. The banks and brokers are linked together by telephone, Telex and satellite communication network called the **SWIFT (Society for World Wide International Financial Telecommunications)**. This counter based communication system, based in the Brussels, Belgium links banks and brokers in just about every financial centers. The banks and brokers are in almost constant contact with activity in some financial center or the 24 Hrs. a day. Because of the speed of the communications, significant event have vertically instantaneous impacts every where in the world despite the huge distances separating market participants. This is what makes the foreign exchange market just as efficient as a conventional stock or commodity market housed under a single roof.

The efficiency of the Spot foreign exchange market is revealed in the extremely narrow spreads between buying and selling prices. These spreads can be smaller than a 10th of the percent of the value of currency exchanged and are therefore about 50th or less of the spread faced on bank notes by international travelers.

Clearing House

A clearing house is an institution at which banks keep funds which can be moved from one bank's account to another's to settle interbank transactions. When foreign exchange is trading against the US Dollar, the clearing house that is used is called CHIPS an acronym for the **Clearing House Inter bank Payments Systems (CHIPS)**. CHIPS is located in new York and as we shall explain below, transfer funds between member bank currencies and also trade directly with each other without involving the dollar – For example Deutsche mark, for British pounds or Italian Lire for Swiss Francs. In these situations a European clearing house will be used. However because a substantial volume of transactions is settled in dollars, we describe here how CHIPS works, although we can note that settlement between banks is similar in other financial centers.

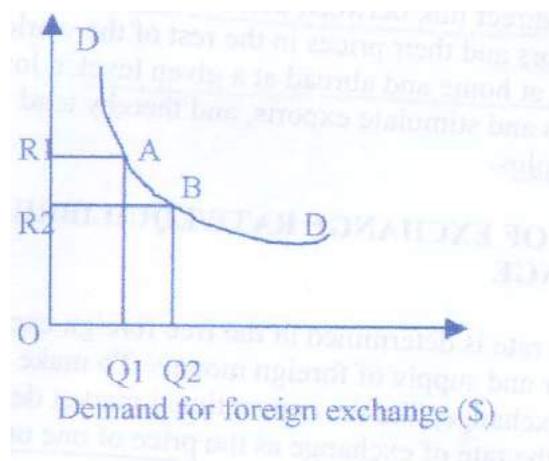
Determination of Exchange Rates / Equilibrium Rate of Foreign Exchange

The foreign exchange rate is determined in the free foreign exchange markets by the forces of 'demand for and supply for foreign money'. To make the demand and supply functions to foreign exchange, like the conventional market demand and supply functions, we define the rate of exchange as the price of one unit of the foreign currency expressed in terms of the Units of the home currency.

The Demand for Foreign Exchange

Generally, the demand for foreign currency arises from the traders who have to make payments for imported goods. If a person wants to invest his capital in foreign countries, he requires the currency of that country. The functional relationship between the quantity of foreign exchange demanded and the rate of foreign exchange is expressed in the demand schedule for foreign exchange {which shows the different rates of foreign exchange}. It is understood from the demand schedule that the relationship, between the quantities of the foreign exchange demanded that the rate of foreign exchange is inverse in such a way that a fall in the rates of exchange is followed and inverse in the quantity of the foreign exchange demanded. The main reason for this relationship is that, a higher rate of foreign exchange by rendering imports more expensive reduces the demand for them and consequently, also reduces the amount demanded of foreign exchange which is required to pay for imports. On the other hand, a lower rate of exchange by making the imports cheaper causes the demand for them to rise and consequently increases the demand for foreign exchange needed to pay for higher imports.

Let us assume, that the rate of foreign exchange {price of US dollar expressed in terms of Indian rupees} is R_1 and amount of foreign exchanges (US dollar) demanded is Q_1 . When the rate of foreign exchange falls from R_1 to R_2 , i.e., the rupee price of the US dollar falls, the amount of foreign exchange demanded increases from Q_1 to Q_2 . This happens because, consequent upon the US dollar becoming cheaper in terms of Indian rupees, the dollar price of the American goods remaining unchanged, the prices expressed in terms of Indian currency fall and consequently the demand for the American export foods in India increases, unless the extreme assumption is made that such demand is perfectly price inelastic. The amount demanded of the foreign exchange will decrease when the rate of foreign exchange rise i.e., when the foreign currency becomes costlier in terms of domestic currency.



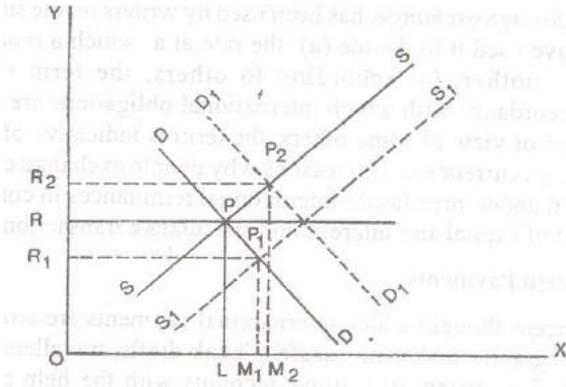
The demand curve for the foreign exchange is shown in where the rate of foreign exchange and the quantity of foreign exchange demanded have been shown on the Y axis and X axis respectively. According to the demand curve DD, which is negatively sloping from left to right, it can be seen that the foreign exchange rate elasticity of demand for foreign exchange is less than infinity and greater than zero. The demand for foreign exchange arising from the imports of commodities and services, has the same foreign exchange rate elasticity, as is the elasticity of demand for imported goods and services with respect to their prices expressed in the local currency.

The Supply of Foreign Exchange

The need for and supply of foreign currency arises from the exporters who have exported goods and services to foreign countries. The supply schedule or curve of foreign exchange shows the different quantities of foreign exchange, which would be available at different rate of foreign exchange, in the foreign exchange market. The sources of supply of foreign exchange depend largely upon the decisions of foreigners. The total quantity of the different goods and services, which a country can export and, therefore, the quantity of foreign currencies which it can acquire depends upon how many the residents of the foreign currencies are willing to import from a particular country.

The Equilibrium Rate of Foreign Exchange

After deriving the demand and supply curves relating to foreign exchange, the equilibrium rate of foreign exchange in the foreign exchange market is determined through the point of intersection between the supply and demand curves of foreign exchange as shown in the following figure. The rate of exchange refers to the rate at which the currency of one country can be converted into the currency of another country. Thus, it indicates the exchange ratio between the currencies of two countries.



Demand and supply for foreign currency

The demand for the supply of a foreign exchange, and how these affect the rate of exchange, in this figure the demand for and supply of foreign exchange have been measured along the axis OX, and the rate of exchange along that of OY. Whereas DD curve indicates the demand for a foreign currency. SS curve indicates its supply. Both intersect at P demand and supply being equally represented by OL, the rate of exchange is OR.

When supply of foreign exchange rises to OM, its demand remaining constant, the rate of exchange declines to OR and when the demand for foreign exchange rises to OM, its supply remaining constant, the rate goes up to OR.

Thus, we conclude that if the demand for a foreign currency increases, its rate of exchange must go up, and if its supply exceeds its demand, the rate must decline.

Functions of the Foreign Exchange Market

The foreign exchange market performs mainly three functions

1. Transferring the purchasing power
2. Provision of credit for foreign trade and
3. Furnishing facilities for hedging for foreign exchange risks

1. Transferring the purchasing power

The most important function is the transfer of purchasing power from one country to another and from one national currency to another. The purchasing power is transferred through the use of credit instruments. The main credit instrument used for transferring the purchasing power is the telegraphic transfer (TT) of the cabled order by one bank (in country A) to its correspondent abroad (in country B) to pay B funds out of its deposit account to its designated account or order.

The telegraphic transfer is simply a sort of cheque, which is wired or radioed rather than sent by post. Purchasing power may also be transferred through bank drafts. There is also the commercial bill of exchange or acceptance, through which even today a considerable amount of payments in international trade is made. A bill of exchange is an order, written by the exporters of goods directing the importer to pay the exporter or the party bank, discount house, or other financial institutions with whom the exporter has discounted the bill.

2. Provision of Credit for Foreign Trade

The foreign exchange market also provides credit for foreign trade. Like all the traders, international trade also requires credit. It takes time to move the goods from seller to purchaser and during this period, the transaction must be financed. When the exporter does not need credit for the manufacture of export goods, credit is necessary for the transit of goods. When the special credit facilities of the foreign exchange market are used, the foreign exchange department of a bank or the bill market is used; the foreign exchange department of the bank or the bill market of one country or the other extends the credit facilities to finance the foreign trade.

3. Furnishing Facilities for Hedging Foreign Exchange Risks

The foreign exchange market by providing facilities of buying and selling at spot or forward exchange, enables the exporters and importers to hedge their exchange risks arising from change in the foreign exchange rate. The forward market in exchange also enables those banks, which are unlikely to run any considerable exchange position to cover their commitments.

Factors Influencing Fluctuations in the Rate of Exchange

The equilibrium rate of exchange is the normal rate below and above which the market rate of exchange fluctuates. There are a number of influences, which may cause fluctuations in the rate of exchange, either acting singly or in collaboration with others. Fluctuations may be due to the combination of the following factors:

I. Market Influences

Market conditions are those influences or factors that affect the demand for and supply of foreign currencies in the short period. They include

i) Trade Operation

These operations include exports and imports i.e., the flow of goods from one country to other. If the exports of a country exceed its imports, it means that the demand for the currency of this country will rise because foreign merchants will buy this currency to settle their debts. Thus, exports increase in the demand for a currency will change the rate and it will make the rate more favourable to the creditor nation. Just the reverse will take place when the imports of the country exceed its exports.

ii) Stock Exchange Transaction

These include investment and speculation in international securities, payment of interest and dividend on loan and investments, and repayment of loans raised by one country to another. They affect the demand for and supply of a currency and hence its rate of exchange.

iii) Banking Operations

These include the investment of funds made by the bankers of one country in other countries, issue of circular notes, letters of credit, arbitrage operation i.e., buying and selling of foreign currencies with a view of making profit. If drafts are being sold by a bank in India to foreign centre, the demand for that foreign currency will increase and its rate of exchange will go up. The buying of bills of exchange by bankers is of very great importance as it affords them a consignment means of utilizing their surplus funds. Bank rate is a very strong weapon which also influences the rate of exchange. If the bank rate in India has been raised, it will certainly attract funds from other centers. Consequently, the demand currency will rise and the value will go up. Just the reverse will happen when the bank rate falls in India.

iv) Government Financial Operations

Under this category, are included repatriation payments and loans given by one Government to another during the period of war. Such payments and transfers affect the demand for and supply of foreign exchange.

v) Speculative Influence

Serious fluctuations are also caused in the rate of exchange by the sale and purchase of foreign currencies by speculators. The speculative activity depends upon the certain factors like rumors of war, inflation, natural calamities, budgetary position etc.

ii. Currency Influence

These refer to long period influence, which affect the rate of exchange because they modify the purchasing power of currencies. The depreciation and debasement of a currency affect its rate of exchange. If the currency has been inflated (over issue of currency has taken place) in the country funds will begin to move out i.e., flight of capital will take place; and its rate of exchange in relation to other currencies will tend to be unfavourable. Deflation will undoubtedly raise its rate of exchange.

Iii. Political Conditions

Satisfactory political conditions constitute another important factor that attracts foreign capital towards a country. A country which enjoys a political stability creates condition favourable for the investment of foreign capital. When the funds are invested into a country, demand for a currency of that country increases as a result of which the rate of that currency becomes more favourable.

Theories of Rate of Exchange

Every country has a currency different from others. There is no common medium of exchange. It is this feature that distinguishes international trade from domestic. Suppose the imports and exports of a country are equal, the demand for foreign currency and its supply conversely, the supply of home currency and the demand for it will be equal. The exchange will be at par. If the supply of foreign money is greater than the demand it will fall below par and the home currency will appreciate. On the other hand, when the home currency is in great supply, there will be more demand for the foreign currency. This will appreciate in value and rise above par.

Economists have propounded the following four theories in connection with determination of rate of exchange:

1. Mint par theory
2. Purchasing power parity theory
3. Balance of payments or equilibrium theory and
4. Foreign exchange theory

Mint Par Theory

Mint par indicates the parity of mints or coins. It means that the rate of exchange depends upon the quality of the contents of currencies. It is the exact equivalent of the standard coins of one country expressed in terms of standard coins of another country having the same metallic standards the equivalent being determined by a comparison of the quantity and fineness of the metal contained in standard coins as fixed by law. A nation's currency is said to be fully on the gold standard if the Government:

1. Buys and sells gold in unlimited quantity at an official fixed price.
2. Permits unrestricted gold movements into and out of the country.

In short, an individual who holds domestic currency knows in advance how much gold he can obtain in exchange for it and how much foreign currency this gold will buy when exported to another country. Under these circumstances, the foreign exchange rate between two gold standard countries' currencies will fluctuate within the narrow limits around the fixed mint par. But mint par is meant that the exchange rate is determined on the weight-to-weight bases of the metallic contents of the two currency units, allowance being given to the purity of the metallic content. The mint parity theory of foreign exchange rate is applicable only when the countries are on the same metallic standards. This, there can be no fixed mint par between gold and silver standard country.

Purchasing Power Parity Theory

This theory was developed after the break down of the gold standard post World War I. The equilibrium rate of foreign exchange between two inconvertible currencies is determined by the ratio between their purchasing powers. Before the First World War, all the major countries of Europe were on the gold standard. The rate of exchange used to be governed by gold points. But after the I World War, all the countries abandoned the gold standard and adopted inconvertible paper currency standards in its place. The rate of foreign exchange tends to be stabilized at a point at which there is equality between the respective purchasing powers of the 2 countries.

For eg; say America and England where the goods purchased for 500 \$ in America is equal to 100 pounds in England. In such a situation, the purchasing power of 500 US \$ is equal to that of 100 English pounds which is another way of saying that $US \$500 = 100$, or $US \$5=1$ pound. If and when the rate of foreign exchange deviates from this norm, economic forces of equilibrium will come into operation and will bring the exchange rate to this norm. The price level in countries remain unchanged but when foreign exchange rate moves to $1=\$5.5$, it means that the purchasing power of the pound sterling in terms of the American dollars has risen. People owing Pounds will convert them into dollars at this rate of exchange, purchase goods in America for 5\$ which in England cost 1 pound sterling and earn half dollar more.

This tendency on the part of British people so to convert their pound sterling into dollars will increase, the demand for dollar in England, while the supply of dollar in England will decrease because British exports to America will fall consequently the sterling price of dollar will increase until it reaches the purchasing power par, i.e. $1=US \$5$. On the other hand, if the prices in England rose by 100 percent those on America remaining unaltered, the dollar value of the English currency will be halved and consequently one sterling would be equal to 2.5 \$. This is because 2 units of English currency will purchase the same amount

of commodities in England, as did one unit before. If on the other hand, the prices doubled in both the countries, there would be no exchange in the purchasing power parity rate of foreign exchange, this, in brief is the purchasing power parity theory of foreign exchange rate determination.

The change in the purchasing power of currency will be reflected in the exchange rate.

Equilibrium Exchange Rate (ER) = $E_r \times P_d / P_f$

Where; E_r = Equilibrium Exchange Rate
 E_r = Exchange Rate in the Reference period
 P_d = Domestic Price Index
 P_f = Foreign currencies price index.

Balance of Payments Theory

According to this approach, foreign exchange rate is determined by independent factors no related to international price levels, and the quantity of money has asserted by the purchasing power parity theory. According to this theory, an adverse balance of payment, lead to the fall or depreciation of the rate of foreign exchange while a favourable balance of payments, by strengthening the foreign exchange, causes an appreciation of the rate of foreign exchange. When the balance of payments is adverse, it indicates a situation in which a demand for foreign exchange exceeds its supply at a given rate of exchange consequently, its price in terms of domestic currency must rise i.e., the external value of the domestic currency must depreciate. Conversely, if the balance of payment is favourable it means that there is a greater demand for domestic currency in the foreign exchange market that can be met by the available supply at any given rate of foreign exchange. Consequently, the price of domestic currency in terms of foreign currency rises i.e., the rate of exchange moves in favour of home currency, a unit of home currency begins to command larger units of the foreign currency than before.

Balance of Payment theory is also known as the Demand and Supply theory. And the general equilibrium theory of exchange rate holds that the foreign exchange rate, under free market conditions is determined by the conditions of demand and supply in the foreign exchange market.

According to this theory, the price of a commodity that is, exchange rate is determined just like the price of any commodity is determined by the free play of the force

of demand and supply.

“When the Balance of Payment is equilibrium, the demand and supply for the currency are equal. But when there is a deficit in the balance of payments, supply of the currency exceeds its demand and causes a fall in the external value of the currency. When there is a surplus, demand exceeds supply and causes a rise in the external value of the currency.”

Dealings on the Foreign Exchange Market Spot and Forward Exchange.

The term Spot exchange refers to the class of foreign exchange transaction which requires the immediate delivery or exchange currency on the spot. In practice, the settlement takes place within two days in most markets.

The forward transaction is an agreement between two parties, requiring the delivery at the some specified future dates of a specified amount of foreign currency by one of the parties, against payment in domestic currency by the other party, at the price agreed upon in the contract. The rate of exchange applicable to the forward contract is called the ‘Forward Exchange Rate’ and the market for forward transaction are known as “Forward Market”.

Forward Exchange Rate: - The rate quoted in terms of price of one country to another.

The forward exchange rate may be at Par, Discount, and Premium.

At Par: - If the forward exchange rate quoted is exactly equivalent to the spot rate at the time of making the contract, the forward exchange rate is said to be at Par.

At Premium: - The forward rate of currency, say the dollar is said to be at premium with respect to the spot rate when one dollar buys more units of another currency, say rupee in the forward than in the spot market.

At Discount: - The forward rate for a currency, say the dollar, is said to be at discount with respect to the spot rate when one dollar buys fewer rupees in the forward.

Futures

While a future contract is similar to a forward contract, there are several difficulties between them. While a forward contract is tailor –made for the client by his international bank, a future contract has standardized features. The contract size and maturity dates

are standardized futures can be traded only on an organized exchange and they are traded competitively. Margins are not required in respect of a forward contract but margins are required of all participants in the future market.

Options

An option is a contract or financial instrument that gives holders the right, but not the obligation, to sell or buy a given quantity of an asset a specified price at a specified future date.

An option to buy the underlying assets is known as a **call option**, and an option to sell the underlying assets is known as a **put option**.

Buying or selling the underlying assets via. The option is known as **exercising** the option. The stated price paid (or received) is known as the exercise or **strike price**. The buyer of an option is known as **the long** and the seller of an option known as the writer of the option, or **the short**. The price for the option is known as premium.

With reference to their exercise characteristics, there are two types of options, American and European. An European option can be exercised only at the maturity or expiration date of the contract, whereas an American option can be exercised at any time during the contract.

Balance of Payment

The Balance of Payment summarizes economic transactions between the residents of a given country and the residents of other country during a given period of time.

Structure of BOP (Components)

A Balance of Payments statement is tabulated to summarize a nation's total economic transaction undertaken on the international trade account. It comprises three distinctive types of accounts.

- a) **Current Account:** Import and Export of goods and services are recorded in trading account and a service includes interest, dividend, travels, shipping, Insurance, Banking etc.
- b) **Capital Account:** Financial Assets and Liabilities, Sale / purchase of fixed assets etc.

- c) **Official reserves:** The reserves holding by the govt. or official agency mean to settle the payments. Interventions of the official reserves for the payment of foreign exchange market.

Disequilibrium the Balance of Payment

The balance of payments as the difference between Receipts and Payments to foreign by the residents of the country. A Countries Balance of Payments is said to be in disequilibrium when there is either “Surplus” or “Deficit” in the Balance of Payment.

Causes of Disequilibrium of Balance of Payment

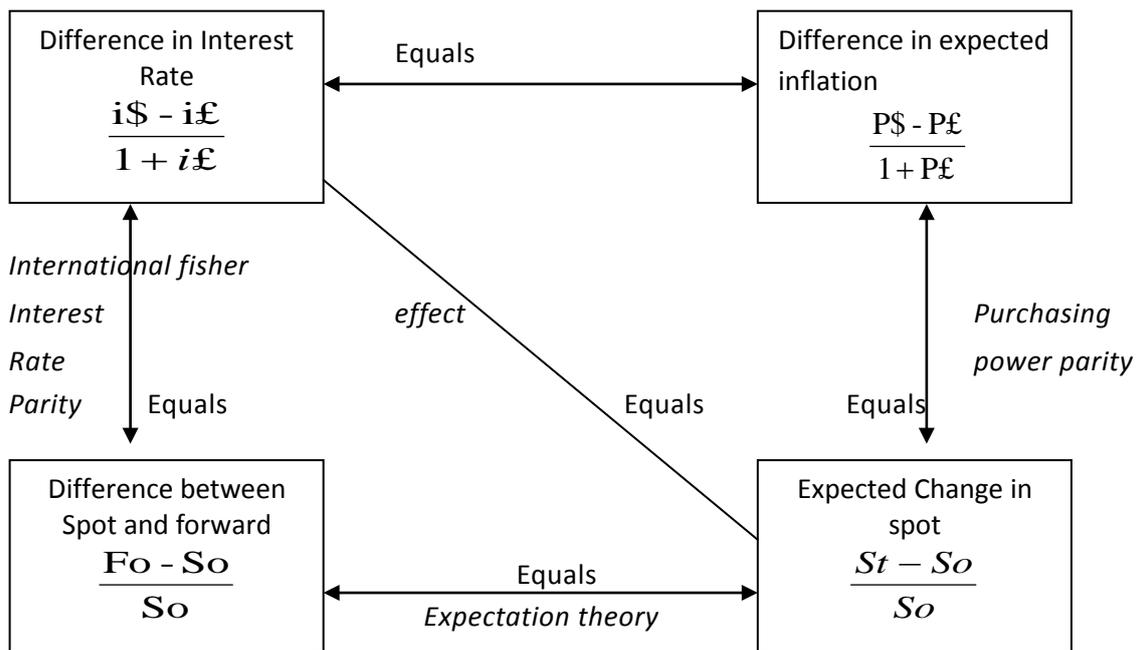
1. Trade Cycle
2. Huge developmental and investment programmes.
3. Change in export demand
4. Population growth
5. Huge external borrowings
6. Inflation
7. Demonstration effects (social, cultural, political factors)
8. Reciprocal demand.

Exchange Rate: Equation

Exchange rates are quoted in terms of number of units of foreign currency bought for one unit of home currency that is \$1. The method of quoted foreign exchange can be direct or indirect. The direct quotation method means a rate of exchange quoted in terms of X unit of home currency to one unit of foreign currency. The indirect quotation method means a rate of exchange quoted in terms of Y units of foreign currency per unit of home currency. In London uses the direct quotation method, most other countries use the direct quotation method.

The foreign exchange spot market is a currency market for immediate delivery. in practice, payment and delivery are usually two working days after the transaction date. The forward market involves rates quoted today for delivery and payment at a future fixed date of a specified amount of one currency against another. In the absence of barriers to international capital movements, there is a relationship between spot and forward exchange rate, interest rates and inflation rates. This relationship can be summarized as under:

Fisher Effect



The Four Way Equivalence in the Foreign Exchange Market

Notations

S_0 = Spot \$ / £ Exchange rate now, F_0 = Forward \$ / £ Exchange rate now.

$i\$$ = Euro dollar interest rate, $i£$ = Euro sterling interest rate, r = real return

S_t = Expected spot \$ / £ exchange rate at time t , f_t = Expected forward \$ / £ exchange rate at time t .

$P\$$ = US price level, $P£$ = UK price level. ${}^e p\$$ = Expected US inflation, ${}^e p£$ = Expected UK inflation.

(1) Interest Rates and Exchange Rates

Assume that an investor has £1m to invest for a period of 12 months. He has a whole spectrum of investment opportunities he could put the money into Sterling or dollar investment or into yen or into Deutschmarks or whatever the currency markets are quoting the Dollar against sterling at \$1.6800 spot and \$1.6066 for 12 months. Euro market fixed interest rates are 13% p.a. for 12 months Sterling and $8 \frac{1}{16}$ % p.a. fixed for US dollars for a similar period.

$$\text{Difference in interest rate} = \frac{i\$ - i£}{1 + i£}$$

$$=8 \frac{1}{16}\% - 13\%$$

$$1 + 13\%$$

$$=0.0437 \text{ or } -4.37\%$$

$$\text{Difference between spot and forward} = \frac{F_o - S_o}{S_o}$$

$$= \frac{1.6066 - 1.6800}{1.6800} = -0.0437 \text{ or } -4.37\%$$

Interest rate parity theory

$$\frac{i\$ - i\pounds}{i + \pounds} = \frac{F_o - S_o}{S_o}$$

Notations

$i\$$ = Euro dollar interest rate

$i\pounds$ = Euro sterling interest rate

F_o = Forward \$/£ Exchange rate

S_o = Spot \$ / £ Exchange Rate

(2) Exchange Rates and Inflation Rates

Just like the above relationship between interest rate and exchange rate there exist a similar hypothesis - related to inflation rate and exchange rates. This relationship is also best approach by a numerical example:

If a commodity sells in the USA at \$100 per kg and UK for £250 per kg and the exchange is \$1.70 to the pound Sterling than a profitable opportunity exist to buy the commodity in the USA, ship to Britain and sell them always assuming that is Gross profit of \$25 per kg.

Given by $(250 * 1.70) - 400$, exceeding shipping at insurance cost from the USA to UK.

The **purchasing power parity (PPP) theory** uses relative general price changes as a proxy for prices of internationally traded goods and applying the equation.

$$\text{Change in \$price of } \pounds = \frac{\text{Change in \$ price level}}{\text{Change in } \pounds \text{ price level}}$$

Thus if inflation is 8% p.a in the USA and 12% p.a in the UK, than applying **PPP theory** we would expect the pound sterling to fall against the dollar by:

$$\frac{(0.08 - 0.12)}{1.12} = 3.6\% \text{ p.a}$$

Difference in Expected inflation
$\frac{P\$ - P£}{1 + P£}$

P\$ =US price level, P£=UK price level.

PPP theory, itself an approximation since it uses the general price level as a proxy for the price level of internationally traded goods, suggesting that the changes in the spot rate of exchange may be estimated by reference to expected inflation differentials. When looking at Post Exchange rate movements, the hypothesis might be tested reference to actual price level changes.

The precise formulation of the ppp theory:

Expected difference in inflation rates $\frac{P\$ - P£}{1 + P£}$	==	Expected change in spot rate $\frac{St - So}{So}$
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St = Expected spot \$/£ Exchange rate at “t” times

So = Spot rate \$/£ Exchange rate

(3) Interest Rate and Inflation Rates [Fisher Effect]

According to the ‘Fisher effect’, a term coined because it was observed by US economist Irving Fisher, normal interest rates in a country reflect anticipated real returns adjusted for local inflation expectations. In a world where investors are internationally mobile, expected real rates of return should tend towards equally, reflecting the fact that in search of higher real returns investors arbitraging actions will force these returns towards each other, at least there should hold with respect to the free market Euro currency interest rates.

Constraints on international capital mobility create imperfections which, among other things, prevent this relationship from holding in domestic interest rate markets.

So normal Euro currency interest rates may differ for different currencies, but according to the fisher effect only by virtue of different inflation expectations. And these inflation differentials should underpin expected changes in the spot rates of exchange.

The Fisher theorem suggests that local interest rates reflect a real expected return adjusted for inflationary expectations, when money is internationally mobile and market imperfections are eliminated, local interest rates will be equal to the international real return adjusted for domestic inflationary expectations.

The following two equivalences are implied:

Difference in interest rates: $\frac{i\$ - i\pounds}{1 + i\pounds}$	=	Expected difference in inflation rates: $\frac{P\$ - P\pounds}{1 + P\pounds}$
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(4) Changes in spot rate and the forward discount (Expectation theory)

This is the expectations theory of exchange rates and its implications are summarized below. This hypothesized relationship can be proved by a priori reasoning. If users of the foreign exchange market were not interested in risk, then the forward rate of exchange would depend solely on what people expected the future spot rate to be.

Difference between forward and spot rates: $\frac{F_0 - S_0}{S_0}$	=	Expected change in spot rate: $\frac{S_t - S_0}{S_0}$
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(5) Interest rate differentials and changes in the spot exchange rate (International Fisher effect)

The hypothesis that differences in interest rate should under the expected movement in the spot rate of exchange is termed the ‘International Fisher effect’. It is sometimes also called ‘Fisher’s open hypothesis’.

Difference in interest rate: $\frac{i\$ - i\pounds}{1 + i\pounds}$	Expected change in spot: $\frac{S_t - S_0}{S_0}$
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‘Agio’ => Means the sum payable for the convenience of exchanging one kind of money For another. The term originally derived from Italian money lending in the middle ages.

Foreign Exchange Risk

Foreign exchange risk concerns risks created by changes in foreign currency levels. An asset, liability or profit or cash flow stream, whether certain or not, is said to be exposed to exchange risk when a currency movement would change, for better or worse, its parent, or home, currency value. Exposure arises because currency movements may alter home currency values.

Forms of Currency Risks

1. Transaction exposure
2. Translation exposure.
3. Economic exposure.

1. Transaction Exposure

It arises because a payable or receivable is denominated in a foreign currency. The transaction exposure arises because the cost or proceeds (in home currency) of settlement of a future payment or receipt denominated in a currency other than the home currency may vary due to changes in exchange rate. Clearly transaction exposure is a cash flow exposure. It may be associated with trading flows (trade Drs and Crs) dividend flows or capital flows.

2. Translation Exposure

Translation exposure (sometimes also called accounting exposure) arises on the consolidation of foreign currency denominated assets, liabilities and profits in the process of preparing accounts. There are four basic translation methods:

a) The Current/Non-Current Method

This approach uses the traditional accounting distinction between current and long term items and translates the former at the closing rate and the latter at the historical rate.

b) The all-Current(Closing Rate) Method

This method merely translates all foreign currency denominated items at the closing rate of exchange. Accounting exposure is given simple by net assets or shareholder's funds (sometimes called equity). This method has become increasingly popular over time and is now the major world wide method of translating foreign subsidiary's balances sheet.

c) The monetary/Non-Monetary Methods

The monetary items are assets, liabilities or capital the amounts of which are fixed by contract in terms of the number of currency units regardless of changes in the value of money.

d) The Temporal Method

The temporal method of translation uses the closing rate method for all items stated or replaced cost, realized values. Market value or expected future value, and uses the historical cost rate for all items stated at historical cost.

3. Economic Exposure

Economic exposure arises because the present value of a stream of the expected future operating cash flow demonstrate in the home currency or in a foreign currency may vary due to changed exchanged rates. Transaction and exposure are both cash flow exposure. Transaction exposure is a comparatively straight forward concept but transaction and economic exposure are more complex.

Economic exposure involves us in a analysis the effects of changing exchange rates on the following items.

1. Export sales, when margins and cash flow should change because devaluation should make exports more comparative
2. Domestic sales, when margins and cash flow should alter substantially in the import competitive sector
3. Pure domestic sales, where margins and cash flow should change in response to deflationary measures which frequently accompany devaluations
4. Cost of imported inputs which should rise in response to the devaluations.
5. Cost of domestic inputs, which may vary with exchange rate changes

Foreign Exchange and Financial Accounting

The accounting professions in the USA, Britain and in many other advanced countries now have most identical rules for accounting for foreign currencies in publishing accounts. Generally speaking, translation of foreign currency items uses the current rate method.

Transaction gains, whether realized or not, are accounted for through the profit and loss account. But there is a major exception and this relates to a foreign currency denominated borrowing where a transaction profit or loss whether realized or not, arises from taking on a foreign currency borrowing in a situation in which the borrowing can be designated as a hedge for a net investment denominated in foreign currency, then the gain or loss on the borrowing, if it is less than the net investment hedged, would be accounted for by in reserves rather than through the income statement. If this kind of transaction gain respectively on the net investment hedged, then the excess gain or loss is to be reported in the profit and loss account.

Non- transaction gain and losses due to be dealt with by reserve accounting direct to the balance sheet rather than through the profit and loss account.

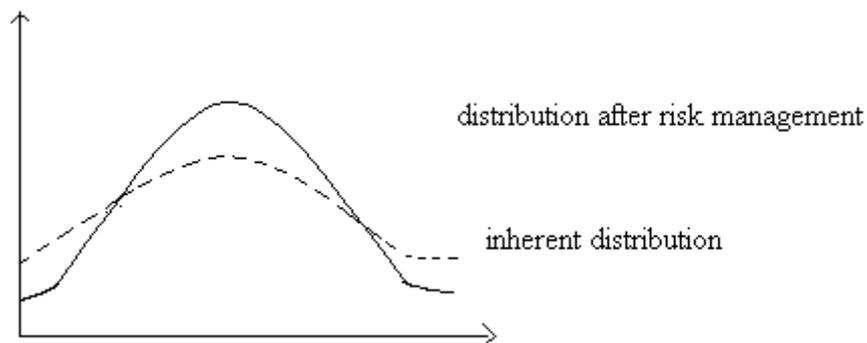
According to US accounting rules, translations of foreign currency denominated profit and loss account are to be made at the average exchange rate during the accounting period.

The British standard allows the use of either the current rate or the average rate for this purpose. It is fair to say that opinion in Britain is moving towards the average exchange rate method.

Principles of Exposure Management

Hedging exposures, sometimes called risk management or exposure management, is widely resorted to, by finance directors, corporate treasurers and portfolio managers. The practice of covering exposure is designed to reduce the volatility of the firms' profits and/or cash generation and it presumably follows that this will reduce the volatility of the values of the firm.

Probability



Firms profit or cash flows / value of the firm

The Goal of Risk Management

According to the theories of exchange rate movements show that the four way equivalence of foreign exchange exposure and how will reduce the risks on the different forms of risks i.e. Transaction, Translation and Economic exposures.

According to PPP Movements in exchange rate offset price level changes. If PPP were to hold immutably and with no time lag, there would, so the argument goes, because no such thing as exchange rate risk and consequently no need to hedge. If the annual rate of inflation in Britain is 10% higher than that in US, the pound will depreciate against the USD by an appropriate % rate. As a result, then is no relative price risk.

According to Capital Asset Pricing Model (CAPM), well diversified international investor should not be willing to pay a premium for corporate hedging activities which they, themselves, can readily replicate by adjusting their own portfolios. Hedging to reduce overall variability of cash flow and profits may be important to managers, compensated accordingly to short-term results, but it is irrelevant to diversified shareholders. The ups and downs of individual investments are compensated by holding a well diversified portfolio.

CAPM suggests that what matters in share pricing is systematic risk. If exchange risk and interest risk are considered to be unsystematic. Then the effect can be diversified anyway by holding a balanced portfolio. On the other hand, if they are systematic and if forward and interest rate instruments are priced according to CAPM, then all that the firm does by entering into hedging contracts is to move along the Security Market Line (SML).

Creditors may be concerned with total variability of cash flows where default is possible, gains and losses that the firm experiences due to random currency fluctuations

may influence valuation through the effect on debt capacity. Where total variability is important, hedging in the foreign exchange market may add to the firm's debt capacity.

Modigliani and Miller (MM) can also array against hedging. MM argue in respect of gearing, that the investor can manufacture home-made leverage which achieves the same result as corporate gearing. The same kind of argument apprise in respect of Individual hedging vs. Corporate hedging. In other words, home made hedging, world made corporate hedging irrelevant. But there are counter arguments here too. Hedging market are wholesale markets and corporate hedging may, therefore, be cheaper. Furthermore, some hedging techniques are only available to the company – leading and lagging and Transfer pricing to name but two. Hedging requires information about current and future exposures and contingent exposures too and it is doubtful whether investors have anything like.

The Arguments for Corporate Hedging

If risk management is to be logically justified in financial terms, there has to be a positive answer to the question. Will exposure management increase the value of the firm? The fact that the firm is confronted with interest rates, exchange rates and / or commodity price risk is only a necessary condition for the firm to manage that risk. The sufficient conditions is that exposure management increases the value of the firm.

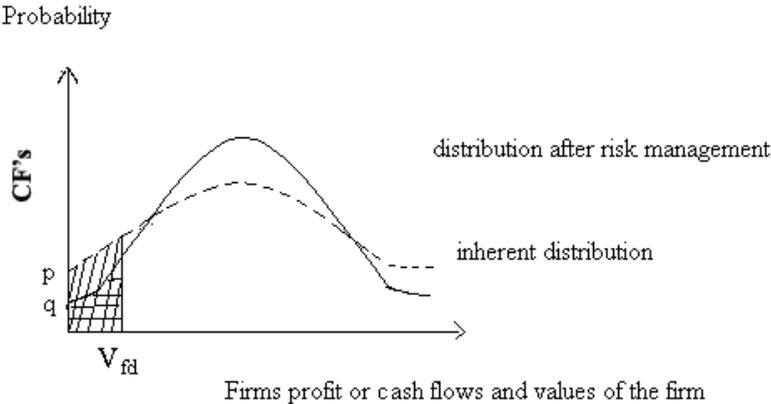
Value of the firm (V) = E (NCF_t) / (1+k)^t

Where E (NCF_t) = Expected Net Cash flows

K = Cost of capital (discounted at the firms 'K)

Hedging can reduce the cost of financial distress by:-

- Reducing the probability of financial distress.
- Reducing the Costs imposed by financial problems



Hedging Reduces the Probability of Financial Distress

Where V_{FD} is the value of the firm above which financial distress is encountered, it can be seen that hedging reduces the probability of financial distress from point 'p' to point 'q'.

Hedging and the tax system interrelate to impact upon the level of net cash flows of the firm. How does this work? If company is facing an effective tax schedule which is convex, than a reduction in the volatility of profit through hedging can reduce corporate tax payable. What is meant by a convex tax schedule? If the firm follows average effective tax rate raises the profit. (If the tax schedule is convex, hedging can lead to a reduction in the firm's expected taxes. The more convex the tax schedule and the more volatile the firm's pre-tax profits, the greater are the tax benefits that accrue to the company. Corporate tax schedule in Britain and the USA currently give the firm only minimal)

Information for Exposure Management

Management of foreign exchange exposure is an integral part of the treasury function in the multinational company. Rational decision taking presupposes that relevant information pertinent to the decision is available. The generalization is no less true of treasury management than it is of any other aspect of business. To make logical decisions of foreign exchange exposure, relevant information is required.

What kind of information? Transaction exposure, translation exposure and Economic exposure, Macro economic exposure. Macro economic exposure is concerned with how a firm's cash flows, profits and hence value change as a result of developments in the economic environment which includes, exchange rate, interest rate, inflation rate, wage level, commodity price levels and other shocks to the system. The analysis of macro economic exposure is very much the leading edge of hedging techniques.

We have classified foreign exchange exposure under their headings; transaction, translation and economic exposure. This contrasts with pure translation exposure where difference arises due to accounting conventions in the process of consolidating the financial accounts of companies within a group.

Internal Techniques of Exposure Management

Internal techniques embrace Netting, Matching, Leading and Lagging, pricing policies and Assets and Liability management.

External techniques include forward contracts, borrowings short term, discounting, factorizing, government exchange risk guarantees and currency options.

Internal Hedging Strategies

Hedging device is a firm may be able to reduce or eliminate currency exposure by means of internal strategies or invoicing arrangements like risk sharing between the firms and its foreign customers. We take a look at some of the commonly used or recommended methods.

Invoicing

The firm may be able to shift the entire exchange risk to the other party by invoicing its exports in its home currency and insisting that its imports too be invoiced in its home currency.

Empirically, in a study of the financial structure of foreign trade Grassman (1973) discovered the following regulations:-

1. Trade between developed countries in manufactured products is generally invoiced in the exporter's currency.
2. Trade in primary products and capital assets are generally invoiced in a major vehicle currency such as the USD.
3. Trade between developed and less developed countries tends to be invoiced on the developed countries currency.
4. If a country has a higher and more volatile inflation rate than its trading partners, there is a tendency not to use that country's currency in trade invoicing.

Another hedging tool in this context is the use of "Currency Cocktails" for invoicing. Thus for instance, a British importer of chemicals from Switzerland can negotiate with the supplier that the invoice be partly in CHF and partly in GBP

Netting and Offsetting

A firm with receivables and payables in diverse currency can net out its exposure in each currency by matching receivables with payables. Thus a firm with exports to and imports from say Germany need not cover each transaction separately. It can use a

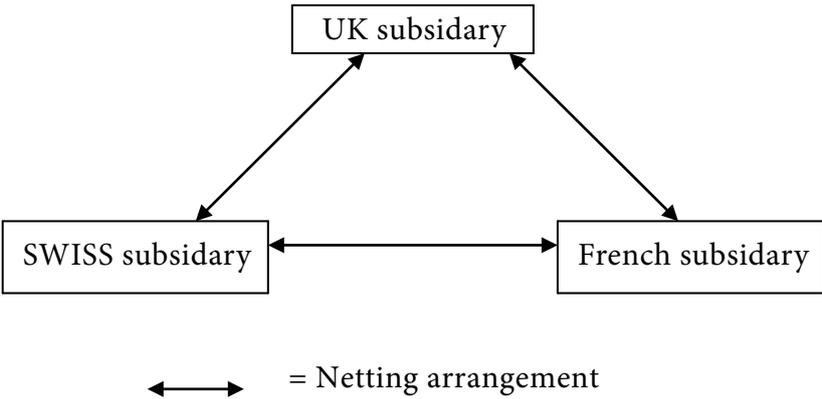
receivable to settle all or part of a payable, and take a hedge only for the net DEM payable or receivable.

Netting also assumes importance in the context of cash management in a multinational corporation with a number of subsidiaries and extensive intra-company transactions. Eg: American parent co. with subsidiary in UK and France. Suppose that the UK subsidiary has to make a dividend payment to the parent of GDP 2,50,000 in three months time, the parent has three months payable of EUR 5,00,000 to the French subsidiary, and French subsidiary has 3 months payable of GBP 3,00,000 to a British supplier (who is not a part of the Multinational). A netting system might work as follows.

The forecasts of spot rates these matters here are

GBP/ USD: 1.50 EUR/ USD: 0.9000 implying GBP/EUR: 1.667. The UK subsidiary is asked to pay GBP 2, 50,000 to the French subsidiary’s UK supplier. Thus the French firm has to hedge only the residual payable of GBP 50,000. GBP 2, 50,000 converted into EUR at the forecast exchange rate amount to EUR 4, 16,675. The Parent may obtain a hedge for the residual amount of EUR 83,325.

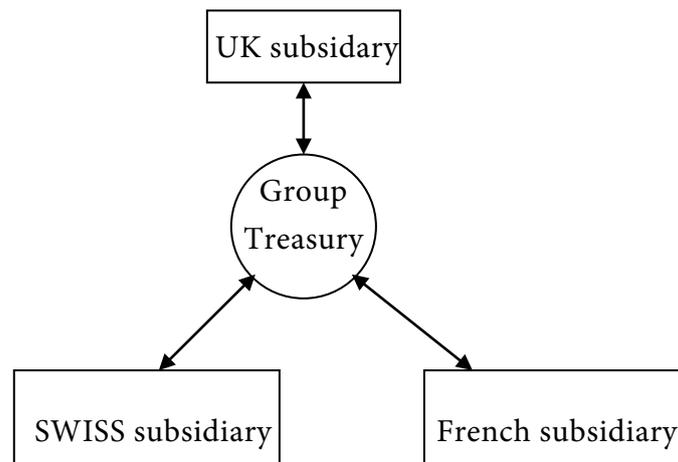
Netting involves associated companies which trade with each other. The technique is simple. Group companies merely settle inter-affiliate indebtedness for the net amount owing. Gross intra-group trade receivables and payables are netted out. The simplest scheme is known as bilateral netting.



Multi-Lateral Netting

It is more complicated but in principle is no different from bilateral netting. Multi-lateral netting involves more than two associated companies. Inter-group debt virtually always involves the services of the group treasury.

Scheme for Multi-Lateral Netting



Netting reduces banking cost and increases central control of inter-company settlements. The reduced number and amount of payments yields savings in terms of buy/sell spreads in the spot and forward markets and reduced bank charges.

Matching

Netting is a term applied to potential flows within a group of companies whereas matching can be applied to both intra-group and third-party balancing.

Matching is a mechanism whereby a company matches its foreign currency inflows with its foreign currency outflows in respect of amount and approximate timing. The prerequisite for a matching operation is two-way cash flow in the same foreign currency within a group of companies. This gives rise to a potential for natural matching.

Leading and Lagging

Another internal way of managing transaction exposure is to shift the timing of exposures by leading or lagging payables and receivables. The general rule is lead, that is, advance payables and lag, that is, postpone receivables in 'Strong' currency and conversely, lead receivable and lag payables in weak currencies.

An American firm has a 180 day payable of AUD 1,00,000 to an Australian supplier. The market rates are:-

USD/ AUD SPOT: 1.3475, 180 day forward: 1.3347

Euro US \$ 180 day interest rate 10% p.a

Euro AUD 180 day interest rate 8% p.a

The Australian authorities have imposed a restriction on Australian firms which prevents them from borrowing in the Euro AUD market. The American firm wants to evaluate the following four alternative hedging strategies:-

- a) Buy AUD 1,00,000 180 day forward (forward)
- b) Borrow US\$, convert Spot to AUD, invest in a Euro AUD deposit, settle the payable with the deposit proceeds (Money market cover)
- c) Borrow AUD in the Euro market, settle the payable, buy AUD 180 day forward to pay off the loan (lead with a forward).

Let us determine US \$ outflow 180 day have under each strategy:-

1. **Forward Cover:-** US \$ outflow = $1,00,000 / 1.3347 = 74923.204$
2. **Money market cover:-** The firm must invest AUD (1,00,000/ 1.04) ie,

AUD 9,61,538.46 to get AUD 1,00,000 on maturity. To obtain ie, must borrow and sell spot US ($961538.46 / 1.3475$) = US 7,13,572.

3. **Lead:-** The American firm can possibly extract a discount at 9.5% p.a. from the Australian firm since this is the latter opportunity cost of short term funds. Thus leading would require cash payment of AUD ($1,00,000 / 1.0475$) = AUD 9,54,653.94
4. **Lead with a forward:-** The firm must borrow AUD 9,54,653.94 at 8% p.a requiring repayment of AUD 9,92,840.10 which must be bought forward requiring an outflow of US \$ 7,43,867.61. This is equivalent to the lead strategy. You can convince yourself that if the American firm's borrowing cost were higher than the Euro US \$ rate, the lead with forward strategy would have been better than a simple lead.

In effect, leading and lagging involve trading off interest rate differentials against expected currency appreciation or depreciation.

Risk Sharing

Another non-market based hedging possibility is to work out a currency risk sharing agreement between the two parties. For instance, the exporter and importer.

Let us work an illustrative example:-

An Indian company has exported a shipment of garments to an American buyer on 90 days credit terms. The current USD/ INR Spot is 46.25 and 90 days forward is 47.00. The payment terms are designed as follows:-

- a) The National amount of the invoice is USD 1,00,000. If at settlement, the Spot USD/ INR rate, S_T , is greater than or equal to 46.00 but less than or equal to 48.00, the national invoice amount of USD 1,00,000 would be translated into rupees at a rate of ₹ 47 per dollar, i.e. ₹ 47,00,000 buyer cost will vary between USD 97916.67 ($= 47,00,000 / 48$) & USD 102173.91 ($= 47,00,000 / 46$).
- b) If the spot rate at settlement is less than 46.00, the conversion rate would be $[(47.00 - 0.5) (46.00 - S_T)]$. The buyer cost would be USD $(4500000 / 42) =$ USD 107142.86.

External Techniques of Exposure Management

External techniques of exposure management resort to contractual relationships outside of a group of companies in order to reduce the risk of foreign exchange losses. External techniques include forward exchange contracts, Short-term borrowings, financial future contracts, currency options, discounting bills receivable factoring receivables, currency overdrafts, currency SWAP's and government exchange risk guaranties.

Forward Markets

A forward foreign exchange contract is an agreement between two parties to exchange one currency for another at some future date. The rate at which the exchange is to be made, the delivery date, and the amounts involved are fixed at the time of the agreement.

This may be used to cover receivables and payables, but also enables a company or high net worth individual to speculate on foreign currency movements.

Forward markets are available for periods beyond 5 years for such currencies as USD, Sterling, DEM, Francs, Yen, Canadian dollars and so on. 10 year forwards are quoted by a few banks for many of the above.

The forward market may be used to cover a receipt and payment denominated in a foreign currency when the date of receipt for payment is known. But it can be readily adopted to allow for situations when the exact payment date is not known.

Forward Options

Britain exporter may decide to cover despite an uncertain payment date via a forward option. Forward market has the maturity period for making payment but forward option has no date of maturity.

Swap Deals

Another method of dealing with unspecified settlement date is by a swap deal. This method is virtually always cheaper than covering by way of forward options. A swap involves the simultaneous buying and selling of currency for different maturities. Swap deals used for forward cover are of two basic types: Forward/ Forward and Spot / Forward. In either case, the exporter begins by covering the foreign currency transaction forward to an arbitrarily selected but fixed date, just as in an ordinary fixed date forward contract. Then if the precise settlement date is subsequently agreed before the initial forward contract matures. The original settlement date may be extended to the exact date by a forward/ forward swap.

Short Term Borrowings

Short-term fixed rate borrowings or deposits is another technique for covering foreign-currency denominated receivables and payables respectively. Assume credit available to/by three to six months, it can be arranged an overdraft, discounting of bills, commercial papers is a corporate short-term, unsecured promissory note issued or a discount to yield business. The commercial papers maturity generally does not exceed 270 days.

Currency overdrafts and currency hold accounts simply use floating rate borrowing and depositing respectively, to achieve the same ends as under short-term borrowings or depositing with a fixed rate. The difference is clearly one of interest rate exposure. Floating rate borrowings or depositing clearly gives risk to an interest rate exposure, fixed rate finance does not.

Exchange Risk Guarantees

As part of a series of encouragement to exporters, government agencies in many countries offer their business insurance against export credit risk and certain export financing schemes. Many of these agencies offer exchange risk insurance to their exporters as well as the usual export credit guarantees. The exporter pays a small premium and

in return the government agency absorbs all exchange risk, thereby taking profits and absorbing losses. To value and to check with such bodies are ECGD in the UK, HERMES in Germany, COFACE in France, Netherlands Credit Insurance Company in Holland, EXIM bank in the USA, ECGC in India and so on.

Self Assessment Questions

1. What is bank draft?
2. What is an Exchange rate spread?
3. What is a spot exchange rate?
4. What is interbank spot market?
5. What is SWIFT and what does it do?
6. What is CHIPS? What does it do?
7. What is a Cross rate?
8. What is forward rate?
9. Explain fully the meaning of “foreign exchange”
10. Explain India’s exchange rate policy under floating rates.
11. What is forward premium?
12. What goes on the axes of a payoff profile for a forward exchange contract?
13. Why under what conditions is the forward rate equal to the expected futures spot rate?
14. What is the meaning of “Margin” on a futures contract?
15. What is meant by “Marking to Market”?
16. What is put option and call option of a currency?
17. What is meant by the time value on an option?
18. What are “invisibles” in the Balance of Payment?
19. What is special drawing right (SDR)?
20. What are official reserve assets?
21. What is Balance of Trade Deficit?
22. Flexible exchange rates determined by supply and demand: describe.
23. Why does inflation shift up a country's demand curve for a product in proportion to inflation? Does the explanation have to do with the inflation raising all prices

and incomes, and leaving relative prices and real incomes unchanged?

24. What are theories of Exchange rate?
25. Describe PPP Theory.
26. What is meant by Exchange rate overshooting?
27. What is meant Agio?
28. Why does the monetary approach imply that higher expected inflation causes a currency to depreciate?
29. What are determinants of Foreign Exchange?
30. What is a Central Bank Swap?
31. What is foreign exchange risk? And how to manage foreign exchange risk?
32. Describe internal and external exposure management.
33. What is meant by exchange rate risk guarantee?
34. Describe leading and lagging

UNIT - V

International Financial Market Instruments

Learning Objectives

After reading this lesson you can be able to understand

- ▶ The International capital Market Instruments like GDR, ADRs, Euro bonds etc.,
- ▶ The Money Market Instruments Repos, commercial papers and Euro deposits etc.,

Financial Markets

Financial markets are markets for financial assets or liabilities. A useful way to categorize financial market is according to maturity.

Financial markets are categorized into money markets and capital markets.

Money markets are markets for financial assets and liabilities of short maturity, usually considered to be less than one year. The market for short-term Eurocurrency deposits and loans is an example of a money market. Capital markets are markets for financial assets and liabilities with maturities greater than one year. These markets include long-term government and corporate bonds as well as common and preferred stock.

Capital Markets Vs Money Market

The most important difference between short-and long-term versions of a particular financial asset is in the liquidity of the asset. Liquidity refers to the ease with which you can exchange an asset for another asset of equal value. Consider the floating-rate Eurocurrency market. There is an active Eurocurrency market for major currencies for maturities of one year or less. At longer maturities, liquidity in the Eurocurrency markets dries up even for the most actively traded currencies. There is very little liquidity in Euro dollar deposits and loans with maturities greater than two years, and most other currencies have low liquidity beyond one year. Similarly, although there are forward markets for major currencies in

maturities up to ten years, liquidity is poor and bid-ask spreads are large at distant forward dates. Covered interest arbitrage is quite effective at enforcing interest rate parity over long short maturities, but it is much less effective at enforcing interest rate parity over long maturities because of poor liquidity in the long-term forward currency and Eurocurrency markets.

Despite the apparently arbitrary classification of financial markets according to maturity, the distinction is important because market participants tend to gravitate toward either short or long-term instruments. Bond investors match the maturities of their assets to those of their liabilities, and so have strong maturity preferences. Commercial banks tend to lend in the short-and intermediate-term markets to offset their short-and intermediate-term liabilities. Like insurance companies and pension funds invest in long-term assets to counterbalance their long-term obligations. The distinctions between capital and money markets are also often encoded in national regulations governing public securities issues.

International Money and Capital Markets

International money and capital markets are for lending and borrowing moneys or claims to money in various currencies in demand outside the country of origin. By far the most important of such money markets are located in Europe called the Euro-currency markets. Asian currency market located in the East. Although US dollars are most frequently traded in these markets, any internationally convertible currency which has a demand and supply can also be traded.

As in the case of international money markets represented by Euro-currency markets or Asian currency markets, there are international capital markets as well, represented by Euro-bond or Asian-bond markets, which reflect the lendings or borrowings at the long-end of the liquidity spectrum of five years and above. While such international money markets have developed in the fifties, the corresponding capital markets have grown in the sixties.

Both the money and capital markets of this type for off-shore funds were of recent vintage, when the old sources of funds under the pre-war system of borrowing from the domestic money and capital markets of New York and London etc., had dried up. Domestic money markets in the post-war world were greatly insulated from foreign money markets in most cases due to the prevailing exchange controls in the interest of pursuit of independent domestic monetary policy, but the interactions and effects of one on the other could not be completely ruled out. Trading in these currencies is both for short-term and long-term and in any of the currencies which are convertible. The bonds or certificates can be denominated

in any convertible currency in which the borrower and the lender have confidence in terms of the stability of the currency, its future value and intrinsic strength of the economy.

International Debt Markets

Debt Markets can be categorized along three other dimensions:

- (a) Intermediated versus non intermediated,
- (b) Internal versus external, and
- (c) Domestic versus international.

a) Intermediated Versus Non-intermediated Debt Markets

Funds can be moved from savers to borrowers either through a financial intermediary such as a commercial bank or directly through a securities market. For this reason, debt markets can be classified according to whether or not a financial intermediary stands between borrowers and savers. In an intermediated debt market, a financial institution such as a commercial bank channels loanable funds from individual and corporate savers to borrowers. In a non-intermediated (or direct) debt market, borrowers such as governments and large corporations issue securities directly to the public without using a financial institution as an intermediary.

(i) Commercial Banks as Financial Intermediaries

Commercial banks develop a need to “go global” as they follow their customers into foreign markets. International commercial banks provide a complete line of financial services to facilitate the overseas trade of their customers. In addition to commercial credit, commercial banks provide a variety of ancillary services including market-making in spot and forward currency, invoicing, collection, cash management, and trade financing through letters of credit, banker’s acceptances, or forfaiting purchasing medium – to long – term receivables at a discount from face value). International banks also often provide interest rate and currency risk management services.

(ii) Non intermediated (Direct) Debt Markets

Bonds issued directly to the public fall under the non-intermediated debt category. The U.S. Government is the world’s largest single borrower, so not surprisingly, the United States heads the list of government bond markets. The Size of national corporate bonds markets generally follows the ranking of government bond markets. The U.S. corporate

bond market is the world's largest corporate bond market. Large U.S. based corporations rely more heavily on the public debt market than do their counterparts in most other countries, although publicly traded bonds also play a major role in the financing of corporations in the United Kingdom. In most other countries, commercial banks assume a more prominent role in allocating debt and equity capital. Despite the rapid growth of euro-denominated bond and equity markets, small and midsize corporations in Europe still raise most of their capital through commercial banks.

b) Internal and External Debt Markets

The fact that bonds can be issued in other than the functional currency of the borrower suggests another way that debt markets can be categorized. Debt placed in an internal market is denominated in the currency of a host country and placed within that country. Debt placed in an external market is placed outside the borders of the country issuing the currency. Government regulation and intervention are nearly absent in the short-term external Eurocurrency market. In contrast, internal markets for long-term debt capital are closely monitored and regulated by local authorities. Government influence in the long-term external Eurobond markets is a little less direct than in internal markets, but no less important. Government regulation of internal and external bond markets is discussed in the cussed in the following section.

c) Domestic and International Bonds

Debt issues can be further categorized according to whether they are sold into domestic or international markets. **Domestic bonds** are issued by a domestic company, traded within that country's internal market, and denominated in the functional currency of that country.

International bonds are traded outside the country of the issuer. International bonds come in two varieties **Foreign bonds** are issued in a domestic market by a foreign borrower, denominated in domestic currency, marketed to domestic residents, and regulated by the domestic authorities. Eurobonds are denominated in one or more currencies but are traded in external markets outside the borders of the countries issuing those currencies. Large borrowers that are well-known internationally sometimes find that their financing costs are lower in foreign bond markets or in the external Eurobond market than in their own domestic bond market. These opportunities arise because of disequilibrium in the international parity conditions; in particular, cross-market differences in real borrowing costs. Smaller borrowers from non-EU countries typically find that their borrowing costs are lower for domestic bond issues than for international bond issues because of the higher

information costs faced by international investors. Borrowers from Emu-zone countries often raise funds in the highly liquid external Eurobond market, most commonly in euros but also in dollars, yen, or pounds sterling.

Domestic Bonds and National Bond Markets

The most prominent bonds selling in national bond markets are domestic bonds. Because they are issued and traded in an internal market, domestic bonds are regulated by the domestic government and are traded according to the conventions of the local bond market. The “GMAC zr 15” listed as a domestic bond is a zero coupon dollar denominated bond issued by General Motors Acceptance Corporation, maturing in the year 2015, and traded on the band trading floor of the New York Stock Exchange.

Domestic bonds are preferred by domestic investors. Borrowers in the domestic market tend to be domestic Government. Domestic borrowers often get better prices for bonds issued domestically than bonds issued in foreign countries. European corporation are finding that euro-denominated bonds offer attractive interest rates relative to bank financing – without the bother of a commercial bank looking over their shoulder.

The success of the euro corporate bond market will come at the expense of lending by European commercial banks. A study by the Bank for International Settlements estimates that one-third of European banks’ corporate loans business will be diverted to public debt and equity issues after the introduction of the euro. Many European commercial banks are expanding their investment banking activities as their commercial lending business is displaced by public debt issues.

Corporate and government bonds in Canada, Japan, and the United States are issued as registered bonds. In countries requiring that bonds be issued in registered form, each issuer maintains a record of the owners of its bonds.

The convention in European countries is to use bearer bonds. Bearer bonds are not registered and can be redeemed by the holder. The principle advantage of bearer bonds is that they retain the anonymity of the bondholder.

European bond dealers quote bond prices as an effective annual yield that assumes annual compounding. Foreign bonds are issued in another country’s internal market and denominated in the local currency. Foreign bonds are issued by a foreign borrower but traded in another country’s internal market and denominated in the local currency. Foreign bonds are issued in the local currency to make the bonds attractive to local residents and regulated

by local authorities. Bond trading conventions on foreign bonds typically conform to the local conventions rather than those of the borrower. Foreign bonds are known as “Yankee bonds” in the United States, as “Bulldog bonds” in the United Kingdom, and as “Samurai bonds” in Japan.

Eurobonds – Necessity is the Mother of Invention

The second type of international bond is the Eurobond.

Eurobonds are issued and traded in the external bond market.

Eurobonds are issued and traded in the external bond market. The FNMA 7.40 04” bond issue in the Eurobond category. Several thousand Euroband issues now trade in the secondary market. The most common Eurobond currencies are the U.S. dollar, Emu-zone euro, British pound sterling, and Japanese yen.

The Swiss franc is notably absent from the list of Eurobond currencies. The Swiss Central bank, Banque Nationale Suisse, does not allow Swiss banks or foreign banks with Swiss branches to trade Eurobonds denominated in Swiss francs. The Swiss foreign bond market trades more foreign bonds than any other national bond market because it substitutes for the nonexistent Swiss franc Eurobond market.

Global Bonds

A global bond is a bond that trades in the Eurobond market as well as in one or more national bond markets. To appeal to a global investor base, borrowers must be large and AAA-rated and must borrow in actively traded currencies. The World Bank established this market with a series of dollar-denominated issued in the late 1980s. Historically, global bonds have been denominated in dollars to take advantage of high liquidity in the dollar market. Since 1999, global bonds are increasingly being issued in euros. Matsushita Electric Industrial Company was the first corporate borrower to tap the global bond market.

International Debt Instruments

Debt management, whether at the domestic or international level, is part of the company’s armoury of techniques which is designed to maximize the present value of shareholder wealth. It is often speculated that the key determining factors are as follows:

1. The amount of business risk affecting the firm.

2. The ability of the firm to service debt, in terms of interest payments and capital repayments, under varying scenarios regarding future outturns.
3. The limits imposed by financiers' lending policies and practices.
4. The perceived norm for the sector.
5. The firm's historic track record in terms of debt raised and the volatility of its earnings.

Beyond the debt / equity ratio, there are a number of factors include maturity profile, fixed / floating interest mix, interest rate sensitivity and currency mix.

Long-term assets should be funded by long-term finance; short-term assets would logically be backed by short-term funds. In terms of maturity profits of debt, the treasurer is well advised to ensure that repayments of borrowings are evenly spread. This reduces exposure to repayment vulnerabilities, which may be magnified due to unforeseen recession.

Short-term debt is riskier than long-term debt. Long-term interest rates are generally more stable over time than short-term rates. The firm which borrows predominantly on a short-term basis may experience widely fluctuating interest rate payments. Short-term borrowings have to be renewed regularly.

The interest rate on a fixed rate loan is fixed for the entire life of the loan regardless of changes in market conditions. A floating rate loan is one where the interest rate varies in line with the market. The loans are usually made at an agreed margin over a published market rate. This may be a clearing bank's base rate for sterling or prime rate for US dollar, or LIBOR (London inter-bank offered rate) for term loans whether in sterling, dollars or Eurocurrency, and so on.

(A) Short-Term Borrowing

Short-term debt is defined as borrowings originally scheduled for repayment within one year. A wide range of short-term debt finance is available.

Trade credit is the major source. In its normal transactions, the firm buys raw materials on credit from other firms. The debt is recorded as trade creditors in its books of account. This is a customary aspect of doing business in most industries. It is a convenient and important source of financing for most non-financial companies.

The next most frequent form of short-term finance, at least in the UK, is the overdraft. An overdraft is a credit arrangement whereby a bank permits a customer to run

its current account into deficit up to an agreed limit. The overdraft is flexible and is for providing seasonal working capital. Bankers like to see overdrafts run down to zero at some point during the year. Nowadays companies tend to finance some of their core borrowing needs by overdraft. The overdraft borrower is at liberty to operate within the established limit and to repay and redraw any amount at any time without advance notice or penalty. The interest charged is usually on an agreed formula, such as between one and four or five percentage points above the bank's base rate. The size of this spread depends on the credit rating of the borrower.

Turning now to money-market sources of short-term debt, the domestic sterling inter-bank market provides a source of corporate borrowing. In this market, the corporate customer obtains very competitive borrowing and deposit rates. The interest rate is usually based on a margin over LIBOR. Large companies may obtain funds at LIBOR or at a very small spread over LIBOR. Transactions are for fixed terms, which can be anything from overnight to twelve months.

Sterling eligible bills – or bankers' acceptances are bills of exchange and they are the oldest instrument in the UK money market. The purpose of the UK bill market is to provide trade finance. Acceptances are issued on a discounted basis. Clearly, the true cost of borrowing is higher than the nominal discount rate. If the discount rate plus commission is quoted as 15 ½ per cent, this amounts to a true rate of interest of well over 16 ¼ per cent. The procedure for companies wishing to use this market is to discount the bills with an accepting bank. The bill will be discounted at the eligible bill rate. The accepting bank receives an acceptance commission for discounting the bill. The bank pays the proceeds of the discounted bill to the company's bank account. Once the accepting bank receives the bill, it will endorse it. The bank may either hold it for its own trading purposes or rediscount it with a discount house. On maturity, the company – or its agent – pays the face value of the bill to the holder at that firm.

Another source of short-term funds is borrowing via commercial paper – basically an IOU. Since April 1986 there has been a market in sterling commercial paper. This paper is in the form of unsecured promissory notes. Its duration is from 7 to 364 days. There are strict rules about which corporations can, and cannot, issue sterling commercial paper. The virtue of this market to the company is endorsed by the fact that a top rate corporation may raise money at around five basis points below LIBID, the London inter-bank bid rate, which is, of course, always less than LIBOR. Unlike US commercial paper, credit rating is not a prerequisite of issue in the UK. The greatest source of short-term funding in the USA is commercial paper.

B) Medium-Term Borrowing

Medium-term debt is defined as borrowings originally scheduled for repayment in more than one year but less than ten years. Until about fifteen years ago, European corporate treasurers had few options when seeking to raise debt – the opportunities included overdraft or short-term bill discounting and long-term debentures and mortgages. This range of choice was poor compared to that confronting the treasurer in the USA, where there has always been an array of medium-term finance available. The expansion of US banks in the international arena aided by the colossal expansion of the Euromarkets and the widespread demise of exchange controls have meant that these financing techniques have been exported to European companies.

Nowadays, medium-term borrowing facilities are widely available. Repayment schedules are negotiable but the usual practice is to require periodic repayments over the life of the loan. The rationale of amortization is to ensure that the loan is repaid gradually over its life in equal instalments commensurate with corporate cash generation rather than falling due all at once. Medium-term loans are normally priced on a basis related to LIBOR. The spread over LIBOR depends on the credit standing of the borrower and the maturity of the facility. They normally vary between 0.25 and 2 per cent.

There are two types of fee associated with medium-term facilities. First, there is the commitment fee. The bank is usually committed to lend once the loan agreement is signed. This commitment fee is usually payable for the portion of the loan which is undrawn. The size of the fee may be ten to fifteen basis points.

When the facility is arranged via a syndication of banks, it is normal for the borrower to pay a management fee. The fee is similar to underwriting fees associated with public issues.

Euromarkets

Euro-dollar or Euro-currency markets are the international currency markets where currencies are borrowed and lent. Each currency has a demand and a supply in these markets. Thus, dollar deposits outside USA or sterling deposits outside UK are called off-shore funds and have a market so long as they are convertible and readily usable in international transactions.

Euro-currency market is a market principally located in Europe for lending and borrowing the world's most important convertible currencies, namely, dollar, sterling,

DM, French franc, yen, etc. On the same basis, the Asian currency market or the African currency market can also be defined.

The Euromarkets are usually defined to include the markets for Eurocurrency, Eurocredits and Eurobonds. The Eurocurrency market is that market in which Eurobanks accept deposits and make loans denominated in currencies other than that of the country in which the banks are located. Eurodollars is that they are dollars held in the form of time deposits in banks outside the United States. Euro-Deutschmarks are marks deposited in banks outside Germany. The prefix 'Euro' - really means external and refers to funds that are intermediated outside the country of the currency in which the funds are denominated. The Eurocurrency market is made up of financial institutions that compete for dollar time deposits and make dollar loans outside the United States, plus IBFs, financial institutions outside Germany that bid for Deutschmark deposits and make Deutschmark loans, financial institutions outside the UK that bid for sterling deposits and loan sterling, and so on.

Definitions of Key Eurocurrency Terms

The Euromarkets are banking markets for deposits and loans. They are located outside the country of the currency in which the claims are denominated.

Eurobonds are bonds denominated in currencies other than that of the country in which the bonds are sold - for example, dollar-denominated bonds in London or Deutschmark denominated bonds in Luxembourg.

Eurobanks are financial intermediaries that bid for time deposits and make loans in currencies other than of the country in which they are located.

LIBOR, the London inter-bank offered rate, is the interest rate at which London Euromarket banks offer funds for deposit in the inter-bank market. It is the most usually quoted base for Eurocurrency transactions. The interest cost to the borrower is set as a spread over the LIBOR rate. Spreads over LIBOR have ranged from around 0.25 per cent to 2 per cent. There is, of course, a separate LIBOR for each of the many currencies in which inter bank loans are made in London.

Domestic and foreign banks taking deposits and lending in the currency of the country in which they operate are, in most financially sophisticated countries, required to hold asset reserves equal to a specified percentage of their deposit liabilities. This situation contrasts with that relating to Eurocurrency deposits. Eurocurrency holdings are not subject to reserve asset requirements. Eurobanks are therefore able to lend at more competitive

rates than their domestic counterparts, since part of their portfolio of assets is not tied up in low-interest-bearing reserve assets.

Eurocredit lending is the medium-term market for Eurocurrency loans provided by an organized group of financial institutions.

Eurodollar Deposits and Loans

The most important distinction between the Eurodollar banking market and domestic banking is that Eurocurrency markets are not subject to domestic banking regulations. Eurobanks may obtain same profit levels as domestic banks even though they achieve lower spreads on lending depositors' funds than their domestic counterparts. The absence of reserve requirements and regulations enables Eurobanks to offer slightly better terms to both borrowers and lenders. Eurodollar deposit rates are higher, and effective lending rates a little lower, than they are in domestic money markets. The absence of regulations is the key to the success of the Eurocurrency markets.

Deep Euromarkets exist only in those currencies, such as the US dollar, the German mark and the pound sterling, that are relatively freely convertible into other currencies.

A Eurodollar deposit may be created and lent on in the manner set out below. A US corporation with \$2 million surplus funds decides to take advantage of the more attractive Eurodollar rates on deposits relative to domestic dollars. The company's surplus funds were held originally in a time deposit with a demand deposit in the local US bank. The company transfers ownership, by payment, of the demand deposit in the local US bank to the US bank in London, where a time deposit is made. This process creates a Eurodollar deposit, substituting for an equivalent domestic time deposit in a US bank. The London branch of the US bank deposits the cheque in its account in a US bank. The US company holds a dollar deposit in a bank in London rather than in the USA. The total deposits of the banks in the USA remains unchanged. However, investors hold smaller deposits in the USA and larger deposits in London. The London Bank now has a larger deposit in the U.S.A. The increase in the London bank's deposits in the US bank is matched by the increase in dollar deposits for the world as a whole. The volume of dollar deposits in the USA remains unchanged, while the volume in London increases.

The London bank will not leave the newly acquired \$2 million idle. If the bank does not have a commercial borrower or government to which it can lend the funds, it will place the \$2 million in the Eurodollar interbank market. In the words, it will deposit the funds in some other Euro bank.

If this second Euro bank cannot immediately use the funds to make a loan, it will re-deposit them again in the inter-bank market. This process of re-depositing might proceed through several Euro banks before the \$2 million finds its way to a final borrower. At each stage the next bank will pay a slightly higher rate than the previous bank paid. But the margins involved in the inter-bank market are very small - of the order of 1/8 per cent. As a rule, larger, better-known banks will receive initial deposits while smaller banks will have to bid for deposits in the inter-bank market.

This inter-bank re-depositing of an original Eurodollar deposit merely involves the passing on of funds from bank to bank. It does not, of course, add to the final extension of credit in the financial markets. Only when the \$2 million is lent on to a corporation or a government is credit eventually and effectively extended. To evaluate the true credit-creation capacity of the Eurodollar market, inter-bank deposits have to be netted out. The ultimate stage in the credit-creating process occurs when a Euro bank lends funds to a non-bank borrower.

Loans made in the Euro market are similar to those made domestically by UK and US banks and so on. More lending is done on a corporate reputation or name basis, as it is sometimes called, to well-known entities, with less credit investigation and documentation being involved than in domestic lending. When the amount needed is greater than one Euro bank is prepared to provide, borrowers obtain funds by tapping a syndicate of banks from different countries. Borrowers often have the option of borrowing in any of several currencies. Eurocurrency loans may be for short-term working capital or trade finance, or they may have maturities up to ten years. The latter would be called medium-term Eurocredits, although they are basically no different from their short-term counterparts. When a Eurocurrency loan has a maturity of more than six months, the interest rate is usually set on a roll-over basis - that is, at the start of each three - or six - month period, it is reset at a fixed amount (e.g. 1 per cent) above the prevailing London inter-bank offered rate.

Eurocurrency deposits often carry interest rates of ½ per cent higher than domestic deposits and borrowers can obtain cheaper money in Euromarkets as opposed to domestic ones. So why do not all depositors and borrowers shift their business into the Eurocurrency market. One reason is the existence of exchange controls. Many governments make it difficult for depositors to invest abroad, and many restrict foreign borrowing by domestic companies. Another reason is the inconvenience and cost involved with maintaining balances or borrowing in a foreign country. Furthermore, the market is largely a wholesale one, and deals in sums of under \$1 million are not available. Euro banks also prefer to lend to large, well-known corporations, banks or governments. But the most important

difference is that Euro deposits, because they are located in a different country, are in some respects subject to the jurisdiction of the country.

The Players in the Market

The Eurocurrency market is entirely a wholesale market. Transactions are rarely for less than \$1 million and sometimes they are for \$100 million. The largest non-banking companies have to deal via banks. Borrowers are the very highest pedigree corporate names carrying the lowest credit risks. The market is telephone linked or telecommunications linked and is focused upon London, which has a share of around one-third of the Eurocurrency market.

Commercial banks form the institutional core of the market. Banks enter the Eurocurrency market both as depositors and as lenders.

Euro Market Deposits and Borrowings

Most deposits in the Eurocurrency market are time deposits at fixed interest rates, usually of short maturity. Many of these deposits are on call; thus they can be withdrawn without notice. Most of the time deposits are made by other banks, but many are made by governments and their central banks as well as multinational corporations.

Deposits come in many forms, besides negotiable Eurodollar certificates of deposit and Floating rate notes (FRNs) have become popular for longer maturity deposits, including floating rate CDs.

Many Eurodollar loans are direct, bank-to-customer credits on the basis of formal lines of credit or customer relationships. The Eurocurrency syndication technique arose principally because of the large size of credits required by some government borrowers and multinational firms. The syndication procedure allows banks to diversify some of the unique sovereign risks that arise in international lending. Syndicated Euro loans involve formal arrangements in which competitively selected lead banks assemble a management group of other banks to underwrite the loan and to market participation in it to other banks.

Interest on syndicated loans is usually computed by adding a spread to LIBOR, although the US prime rate is also used as a basis for interest pricing, LIBOR interest rates change continuously, of course. The rate on any particular loan is usually readjusted every three or six months on the prevailing LIBOR rate – this method of pricing is known as a roll-over basis.

The Eurocredit Market

The Eurocredit market, is called the medium-term Eurocredit market, or the medium-term Eurocurrency market, is defined as the market for loans in currencies which are not native to the country in which the bank office making the loans is located. The Eurocredit market is concerned with medium and long-term loans. Banks are the major lenders with major borrowers being large multinational companies, international organizations and governments. Generally, Eurocredits are extended by a large group of banks from many banks.

Loan Syndication

Syndicated Loans and Other Banking Products

The most common form of international lending by commercial banks is the Syndicated Floating Rate Loan. This can be defined as a medium-to long-term financing provided by several banks with common loan documentation with a variable interest rate.

The most common pricing benchmark is the LIBOR (London Inter-Bank Offered Rate) in the relevant currency and the loan document states interest rate as LIBOR plus a margin or spread e.g. LIBOR + 1.5%.

A traditional syndicated loan is usually a floating rate loan with fixed maturity, a fixed draw-down period and a specified repayment schedule. A typical eurocredit would have maturity between five and 10 years, amortization in semiannual installments, and interest rate reset every three or six months with reference to LIBOR + 1.5%

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In a standby facility, the borrower is not required to draw down the loan during a fixed, pre-specified period; instead, he pays a contingency fee till he decides to draw the loan at which time interest begins to accrue. Syndicated credits can be structured to incorporate various options. As in the case of FRNs, a drop-lock feature converts the floating rate loan into a fixed rate loan if the benchmark index hits a specified floor.

There are usually three categories of bank in a loan syndicate. There are lead banks, managing banks and participating banks. In large credits, there is a separate group called co-managers. This group comprises participating banks providing more than a specified amount of funds. Most loans are led by one or two major banks which negotiate to obtain a mandate from the borrower to raise funds. After the preliminary stages of negotiation with a borrower, the lead bank begins to assemble the management group, which commits itself to provide the entire amount of the loan, if necessary. Portions of the loan are then marketed to participating banks.

The lead bank assembles a management group to assure the borrower that the entire amount of the loan will be taken up. During this phase, the lead bank may renegotiate the terms and conditions of the loan if it cannot assemble a managing group on the initial terms. Many lead banks are willing to take more of the credit into their own portfolio than they had originally planned. The lead bank is normally expected to provide a share at least as large as any other bank. Once the lead bank has established the group of managing banks, it then commits the group to raise funds for the borrower on specified terms and conditions.

When the management group is established and the lead bank has received a mandate from the borrower, a placement memorandum is prepared by the lead bank and the loan is marketed to other banks which may be interested in taking up shares. Such lenders are termed the participating banks. The placement memorandum describes the transaction and gives information regarding the financial health of the borrower.

The lead bank bears the chief responsibility for marketing the loan. There are three main methods used to find participants for syndicated credits. Often banks contact the borrower expressing an interest in participating in a given credit. But the bulk of participants are banks invited by the lead bank to join the syndication. Each major bank maintains files on the syndicated lending activities of other banks. The files contain lists of banks that have joined various syndications. This information enables the loan syndication officers at the lead bank to estimate which banks might be interested in which borrowers.

When a bank is invited to participate in syndication, the amount and the terms and conditions it is being asked to accept are set out in a telex sent by the lead bank. These shortcuts the negotiation process and expedites the credit.

The lead bank usually offers to sell off more of the credit than it really wishes. An experienced lead bank can usually gauge the appropriate number of participation invitations to be extended. If the credit is attractive, fewer banks will be contacted. If the

credit appears hard to place, a greater number of invitations will be sent out. If the loan is oversubscribed, the borrower is usually given the opportunity to borrow more money than initially negotiated on the same terms. If the borrower does not choose to take advantage of this, the amounts assigned to each bank are scaled down pro rata.

In a successful loan syndication, once the marketing to participants is completed, the lead and managing banks usually keep 50 to 75 per cent of their initial underwritten share. The lead bank is generally expected to take into its portfolio about 10 per cent of the total credit.

The most common type of syndicated loan is a term loan, where funds can be drawn down by the borrower within a specified time of the loan being signed – this is called the ‘drawdown period’. Repayments are subsequently made in accordance with an amortization schedule. For other loans, amortization may not commence until five or six years after drawing down the loan.

This kind of loan is termed a ‘bullet loan’. Loans which require repayment according to an amortization schedule and include a larger final payment on maturity are termed ‘balloon repayment loans’. The period prior to the commencement of repayment is termed the ‘grace period’. The extent of the grace period is usually a major negotiating point between borrower and lead bank. Borrowers are usually willing to pay a wider spread in order to obtain a longer grace period.

Syndicated loans of the revolving credit type are occasionally encountered. In these, the borrower is given a line of credit which it may draw down and repay with greater flexibility than under a term loan. Borrowers pay a fee on the undrawn amount of the credit line.

Additional to interest costs on a loan, there are also front-end fees, commitment fees and occasionally an annual agent’s fee. Front-end management fees are one-off charges negotiated in advance and imposed when the loan agreement is signed. These fees are usually in the range of 0.5 to 1 per cent of the value of the loan. The fees may be higher if a particular borrower insists upon obtaining funds at a lower spread than is warranted by market conditions and credit worthiness.

The relationship between spreads and fees is hard to quantify, as data on all fees are usually unobtainable. Lower spreads are compensated by higher fees, since they are interested in the total return on the loan. Some borrowers prefer to pay a higher fee, which is not published, while going on record as paying a low spread. Over time, demand

and supply conditions determine both spreads and fees. During periods of easy market conditions, borrowers can command low fees and low spreads. During periods when banks are reluctant to extend credit, high spreads and high fees are the norm.

Front-end fees consist of participation fees and management fees. Each of these typically amount to between 0.25 and 0.5 per cent of the entire amount of the loan.

In addition to front-end fees, borrowers may pay commitment fees. These fees are charged to the borrower as a percentage of the undrawn portion of the credit in return for the bank tying up part of its credit capacity on behalf of the borrower. Commitment fees of 0.375 to 0.5 per cent per annum are typically imposed on both term loans and revolving credits. The agent's fee, if applicable, is usually a yearly charge.

In order to protect their margins, banks usually require all payments of principal and interest to be made after taxes imposed have been paid. If those taxes are not creditable against the banks' home country taxes, the borrower must adjust payments so that the banks receive the same net repayment. The decision as to whether the borrower or lender absorbs any additional taxes imposed by the country in which the loan is booked is negotiated between the parties. Additionally, a reserve requirement clause is inserted, stipulating that an adjustment will be made if the cost of funds increases because reserve requirements are imposed or increased.

There is generally no prepayment penalty on Eurocredits. The charges on syndicated loans may be summarized as follows:

Annual payments = (LIBOR + spread)

- X amount of loan drawn down and outstanding
- + commission fee X amount of loan undrawn
- + annual agent's fee (if any)
- + tax adjustment (if any)
- + reserve requirement adjustment (if any)

Front-end charges = lead bank pro-rata X total amount of loan

- + participation fee X face amount of loan
- + management fee X face amount of loan
- + initial agent's fee (if any)

Exchange Markets vs. Currency Markets

In the foreign exchange market, one currency is exchanged for another currency at a rate of exchange which is the price in terms of the number of units of the currency exchanged for one unit of the latter. On the other hand, the price paid for borrowing or lending a currency in the international currency market is the rate of interest. The purpose for which currencies are exchanged in the foreign exchange market or borrowed in the international currency market may be the same.

Dealers in the Market

International banks or multi-national banks and foreign branches of domestic banks, private banks, merchant banks and other banks are the main dealers in this market. In fact, most of the US banks deal in this market. The market is of a wholesale nature, highly flexible and competitive and well-connected in the world over by a wide network of brokers and dealers. London is the focal centre for the Euro-dollars as Singapore is the focal centre for Asian-dollars. There are a number of centres in both West and East, namely, Zurich, Luxembourg, Paris, Tokyo, Hongkong, Manila, etc.

The International Bond Market

Money may be raised internationally by bond issues and by bank loans. This is done in domestic as well as international markets. The difference is that in international markets the money may come in a currency which is different from that normally used by the borrower. The characteristic feature of the international bond market is that bonds are always sold outside the country of the borrower. There are three types of bond, of which two are international bonds. A domestic bond is a bond issued in a country by a resident of that country. A foreign bond is a bond issued in a particular country by a foreign borrower. Eurobonds are bonds underwritten and sold in more than one country.

A foreign bond may be defined as an international bond sold by a foreign borrower but denominated in the currency of the country in which it is placed. It is underwritten and sold by a national underwriting syndicate in the lending country. Thus, a US company might float a bond issue in the London capital market, underwritten by a British syndicate and denominated in sterling. The bond issue would be sold to investors in the UK capital market, where it would be quoted and traded. Foreign bonds issued outside the USA are called Yankee bonds, while foreign bonds issued in Japan are called Samurai bonds. Canadian entities are the major floaters of foreign bonds in the USA.

A **Eurobond** may be defined as an international bond underwritten by an international syndicate and sold in countries other than the country of the currency in which the issue is denominated.

In the Eurobond market, the investor holds a claim directly on the borrower rather than on a financial institution. Eurobonds are generally issued by corporation and governments needing secure, long-term funds and are sold through a geographically diverse group of banks to investors around the world.

Eurobonds are similar to domestic bonds in that they may be issued with fixed or floating interest rates.

Characteristics

- i) The issuing technique takes the form of a placing rather than formal issuing, this avoids national regulations on new issues.
- ii) Eurobonds are placed simultaneously in many countries through syndicates of underwriting banks which sell them to their investment clientele throughout the world.
- iii) Unlike foreign bonds, Eurobonds are sold in countries other than that of the currency of denomination; thus dollar – denominated Eurobonds are sold outside the U.S.A.
- iv) The interest on Eurobonds is not subject to withholding tax.

There are a number of different types of Eurobond. A straight bond is one having a specified interest coupon and a specified maturity date. Straight bonds may be issued with a floating rate of interest.

Such bonds may have their interest rate fixed at six-month intervals of a stated margin over the LIBOR for deposits in the currency of the bond. So, in the case of a Eurodollar bond, the interest rate may be based upon LIBOR for Eurodollar deposits.

A convertible Eurobond is a bond having a specified interest coupon and maturity date, but it includes an option for the hold to convert its bonds into an equity share of the company at a conversion price set at the time of issue.

Medium-term Euronotes are shorter-term Eurobonds with maturities ranging from three to eight years. Their issuing procedure is less formal than for large bonds. Interest rates

on Euronotes can be fixed or variable. Medium-term Euro-notes are similar to medium-term roll-over Eurodollar credits. The difference is that in the Eurodollar market lenders hold a claim on a bank and not directly on the borrower.

The issue of Eurobonds is normally undertaken by a consortium of international banks. A record of the transaction called a 'tombstone' is subsequently published in the financial press. Those banks whose names appear at the top of the tombstone have agreed to subscribe to the issue. At a second level, a much larger underwriting syndicate is mentioned.

The banks in the managing syndicate will have made arrangements with a worldwide group of underwriters, mainly banks and security dealers. After arranging the participation of a number of underwriters, the managing syndicate will have made a firm offer to the borrower, which obtains the funds from the loan immediately. At a third level, the underwriting group usually arranges for the sale of the issue through an even larger selling group of banks, brokers and dealers.

The Advantages of the Eurobond Market to Borrowers

The Eurobond market possess a number of advantages for borrowers

- i) The size and depth of the market are such that it has the capacity to absorb large and frequent issues.
- ii) The Eurobond market has a freedom and flexibility not found in domestic markets.
- iii) The cost of issue of Eurobonds, around 2.5 per cent of the face value of the issue.
- iv) Interest costs on dollar Eurobonds are competitive with those in New York.
- v) Maturities in the Eurobond market are suited to long-term funding requirements.
- vi) A key feature of the Eurobond market is the development of a sound institutional framework for underwriting, distribution and placing of securities.

II. The Advantages of Eurobonds to investors

- i) Eurobonds are issued in such a form that interest can be paid free of income or withholding taxes of the borrowing countries. Also, the bonds are issued in bearer form and are held outside the country of the investor, enabling the investor to evade domestic income tax.
- ii) Issuers of Eurobonds have well reputation for credit worthiness.

- iii) A special advantage to borrowers as well as lenders is provided by convertible Eurobonds. Holders of convertible debentures are given an option to exchange their bonds at a fixed price.
- iv) The Eurobond market is active both as a primary and as a secondary market.

Some Terminology used in International Finance Market

1. **American depository receipt (ADR):** Certificate of ownership issued by a US bank to investors in place of the underlying corporate shares, which are held in custody.
2. **Bond:** A promise under seal to pay money. The term is generally used to designate the promise made by a corporation, either public or private, to pay money, and it generally applies to instruments with an initial maturity of five years or more.
3. **Eurobond:** A bond underwritten by an international syndicate of banks and marketed internationally in countries other than the country of the currency in which it is denominated.
4. **Eurocommercial paper:** A generic term used to describe Euronotes that are issued without being underwritten.
5. **Eurocredit:** The Eurocredit market is where highly rated borrowers can gain access to medium-term bank lending. The loan can be denominated in one or several Eurocurrencies as can the interest and the principal. The interest rate is normally fixed as a margin over LIBOR.
6. **Eurocurrency:** A time deposit in a bank account located outside the banking regulations of the country which issues the currency.
7. **Eurodollars:** Dollars held in time deposits in banks outside the United States. These banks may be foreign owned or overseas branches of US banks.
8. **Euromarkets:** A collective term used to describe a series of offshore money and capital markets operated by international banks. They comprise Eurocurrency, Eurocredit and Eurobonds markets. The centre of these markets is London, except for Euro-sterling market which is centred in Paris.
9. **Euronote:** The Euronote market is one in which borrowers raise money by the issue of short-term notes, generally with maturities of three and six months, that are negotiable like certificates of deposit. As one issue of notes matures, the borrower issues some more so that, while the holders of the debt change over time, the total amount outstanding

can be maintained in the medium term. A group of commercial banks may ensure that the borrower in a particular issue will be able to place such notes by standing by ready to purchase the paper should the appetite of short-term investors wane.

10. **Euro-note facility:** This allows borrowers to issue short-term notes through a variety of note distribution mechanisms, under the umbrella of a medium-term commitment from banks.
11. **European Monetary System (EMS):** A structure of agreements governing the exchange market activities of participating members of the European Union. Agreements require members closely to manage the exchange values of their currencies relative to those of other members.
12. **Floating exchange rate system:** A system in which the value of a currency relative to others is established by the forces of supply and demand in the foreign exchange markets.
13. **Floating or variable rate interest:** Interest on an issue of securities which is not fixed for the life of the issue, but is periodically set according to a predetermined formula. The rate is usually set at a margin or spread in relation to a specified money-market rate, such as LIBOR.
14. **Floating rate note (FRN):** A short-term floating interest rate security. The interest rate is pegged to LIBOR, and is adjusted semi-annually. These securities are attractive to investors during periods of rising interest when fixed rate bonds are subject to depreciation.
15. **Floating rate payer:** A party that makes swaps payments calculated on the basis of a floating rate.
16. **London inter-bank offered rate (LIBOR):** The interest rate at which prime banks offer deposits to other prime banks in London. This rate is often used as the basis for pricing Eurodollar and other Eurocurrency loans. The lender and the borrower agree to a mark-up over LIBOR: the total of LIBOR plus the mark-up is the effective interest rate for the loan.

The International Financing Decision

Before we examine various funding avenues in the global market we must discuss the issues involved in choosing a particular mix of financing in terms of markets, currencies and instruments.

The issue of the optional capital structure and subsequently the optimal mix of funding instruments is one of the key strategic decisions for a corporation. The actual implementation of the selected funding programme involves several other considerations such as satisfying all the regulatory requirements, choosing the right timing and pricing of the issue, effective marketing of the issue and so forth.

The optimal capital structure for a firm or, in other words, corporate debt policy has been a subject of a long-running debate in finance literature since the publication of the seminal paper by Modigliani and Miller which argued that in the absence of taxes, capital structure does not matter.

The issue of the optimal composition of a firm's liability portfolio. The firm usually has a wide spectrum of funding avenues to choose from. The critical dimensions of this decision are discussed below.

- (1) Interest rate basis: Mix of fixed rate and floating rate debt.
- (2) Maturity: The appropriate maturity composition of debt.
- (3) Currency composition of debt.
- (4) Which market segments should be tapped?

For instance, long-term financing can be in the form of a fixed rate bond or an FRN or short-term debt like commercial paper repeatedly rolled over. Each option has different risk characteristics.

Individual financing decisions should thus be guided by their impact on the characteristics-risk and cost-of the overall debt portfolio as well as possible effects on future funding opportunities.

In viewing the risks associated with funding activity, a portfolio approach needs to be adopted. Diversification across currencies and instruments enables the firm to reduce the overall risk for a given funding cost target. It also helps to increase investors' familiarity with the firm which makes future approaches easier.

It should be kept in mind that currency and interest rate exposures arising out of funding decisions should not be viewed in isolation. The firm should take a total view of all exposures, those arising out of its operating business and those on account of financing decisions.

Funding Avenues in Global Capital Markets

Global financial markets are a relatively recent phenomenon. Prior to 1980, national markets were largely isolated from each other and financial intermediaries in each country operated principally in that country. The foreign exchange market and the Eurocurrency and Eurobond markets based in London were the only markets that were truly global in their operations.

Financial markets everywhere serve to facilitate transfer of resources from surplus units (savers) to deficit units (borrowers), the former attempting to maximise the return on their savings and the latter looking to minimize their borrowing costs. An efficient financial market thus achieves an optimal allocation of surplus funds between alternative uses. Healthy financial markets also offer the savers a wide range of instruments enabling them to diversify their portfolios.

Globalization of financial markets during the, 80's has been driven by two underlying forces. Growing (and continually shifting) imbalance between savings and investment within individual countries, reflected in their current account balances, has necessitated massive cross-border financial flows.

The other motive force is the increasing preference on the part of investors for international diversification of their asset portfolios. This would result in gross cross-border financial flows even in the absence of current account imbalances though the net flows would be zero. Several investigators have established that significant risk reduction is possible via global diversification of portfolios.

Capital markets of the newly industrializing South East Asian economies e.g. Korea and Taiwan permit only limited access to foreign investors. Even in an advanced economy like that of Germany, the structure of corporate financing is such that most of the companies rely on loans from domestic banks for investment and investors do not appear to show much interest in foreign issues. All these reservations, it can be asserted that the dominant trend is towards globalization of financial markets.

There are two broad groups of borrowers, of the total debt raised on the international markets in recent years. There are fluctuations in the relative importance of different types of instruments as markets respond to changing investor / borrower needs and changes in the financial environment. It is clear that for developing countries, as far as debt finance is concerned, external bonds and syndicated credits are the two main sources of funds.

1) Syndicated Credit 2) Debt securities

An overview of finding avenues in the global capital markets is the procedural aspects of actually tapping a market – acquiring the necessary clearances and approvals, preparing various documents, investor contact and so forth-are usually quite elaborate. Issues related to accounting, reporting and taxation are quite complex and require specialist expertise. We will keep clear of these matters and concentrate on the basic features and cost-risk characteristics of the various instruments.

Bond Markets

Bonds can be defined as negotiable debt instruments with original maturity in excess of one year. The domestic bond markets are dominated by the respective governments. For instance, the US treasury is the largest issuer of bonds in the world. When a non-resident issuer issues bonds in the domestic market of a country (currency), it is known of that currency is known as a Eurobond.

Thus, for instance, when Reliance Industries issues a USD bond in the US capital market, it is a foreign dollar bond. If the bond issue is made in London, it is a Eurodollar bond. Public, registered issues of foreign bonds in the domestic markets of various countries have acquired trade names such as Yankee Bonds (US), Bulldog Bonds (UK), Samurai Bonds (Japan), Matador Bonds (Spain) etc.

Bonds may be registered or in bearer form. The procedures for transfer of ownership or exchange between bondholders are different for the two categories.

The traditional bond is the straight bond. It is a debt instrument with a fixed maturity period, a fixed coupon which is a fixed periodic payment usually expressed as percentage of the face value, and repayment of the face value at maturity. The market price at which such a security is bought by an investor either in the primary market (a new issue) or in the secondary market.

A very large number of variants of the straight bond have evolved over time to suit varying needs of borrowers and investors. The familiar variants are:

- 1) **Floating Rate Notes (FRN):** It is a bond with varying coupon. Periodically every six months, the interest rate payable for the next six months is set with reference to a market index such as LIBOR.
- 2) **Zero coupon bonds** (“Zeros”) and **Deep Discount Bonds** which do pay a coupon but are at a rate below the market rate for a corresponding straight bond. Bulk of the return to the investor is in the form of capital gains.

3) **Sinking fund bonds** were a device, often used by small risky companies, to assure the investors that they will get their money back.

Some other bonds like Callable bonds, Puttable bonds and Convertible bonds. Each of these contains an option granted either by the issuer to the investor (convertibles, puttable) or vice-versa (callable). The value of the option is captured by adjusting the coupon which tends to be lower for convertibles and puttable bonds and higher for a callable bond compared to a straight bond with identical features.

Some bonds contain embedded currency or commodity options. For instance, the coupon payments and / or the redemption amount may be linked to an exchange rate or the price of a commodity such as oil. Redemption may be in any one of two or more currencies at the option of the investor. Dual currency bonds have coupon payments in one currency and redemption in another.

Warrants are an option sold with a bond which gives the holder the right to purchase a financial asset at a stated price. The asset may be a further bond, equity shares or a foreign currency. The warrant may be permanently attached to the bond or detachable and separately tradeable.

The largest international bond market is the Eurobond market which is said to have originated in 1963 with an issue of Eurodollar bonds by Autostrade, an Italian borrower.

Eurobond markets in all currencies except yen are quite free from any regulation by the respective governments. The euroyen bond market, which really came into existence as late as 1984, is closely controlled and monitored by the Japanese Ministry of Finance.

Straight bonds in the eurobond market are priced with reference to a benchmark, typically treasury issues. Thus, a eurodollar bond will be priced to yield a YTM (Yield-to-Maturity). The straight bonds segment is accessible only to highly rated borrowers.

Many eurobonds are listed on stock exchanges in Europe. This requires that certain financial reports be made available to the exchanges on a regular basis. However, secondary market trading in eurobonds is almost entirely over-the-counter by telephone between dealers.

Flotation costs of eurobond issues are generally higher than costs associated with syndicated eurocredits.

Among the national capital markets, the US market is the largest in the world. It is complemented by the world's largest and most active derivative markets, both OTC and exchange-traded. It provides a wide spectrum of funding avenues.

From a non-resident borrower's point of view, the most prestigious funding avenue is public issue of Yankee Bonds. These are dollar denominated bonds issued by foreign borrowers. It is the largest and most active market in the world but potential borrowers must meet very stringent disclosure, dual rating and other listing requirements, option features like call and put can be incorporated and there are no restrictions on the size of the issue, maturity and so forth.

Medium-term Notes (MTNs) represent a medium-term, non-underwritten, fixed interest rate source of funding. This form of funding originated in the US capital market and was introduced to the euro market – Euro Medium Term Notes (EMTNs) – during the '80s. It was a part of the disintermediation process in which borrowers were approaching investors directly rather than going through the bank loan route.

Short-Term Financing

In this section, we will briefly describe some of the common short-term funding instruments such as commercial paper (CP), bankers' acceptances (BAs) and Certificates of Deposit (CDs). In addition, there are short-term bank loans ranging in maturity from overnight to one year.

i) Commercial Paper (CP)

Commercial Paper is a corporate short-term, unsecured promissory note issued on a discount to yield basis. It can be regarded as a corporate equivalent of CD (Certificate of Deposit) which is an interbank instrument.

Commercial paper maturities generally do not exceed 270 days. Issuers usually roll over the issue and use the proceeds from the new issue to retire the old issue. The issue is normally placed through CP dealers or, in a few cases, large corporations have their own sales force. Commercial paper represents a cheap and flexible source of funds especially for highly rated borrowers, cheaper than bank loans. For investors, it is an attractive short-term investment opportunity compared to a time deposit with a bank.

In addition to the high credit reputation of the borrowers, most CP programmes also require a back-up credit line from a commercial bank, covering at least 50% more

often nearly 100% of the issue. While CPs are negotiable, secondary markets tend to be not very active since most investors hold the paper to maturity.

The US has the largest and long-established dollar CP market. In recent years, it has dwarfed the markets for Certificates of Deposit and Bankers' Acceptances. It is used extensively by US corporations as well as some non-US corporations. The emergence of the Euro Commercial Paper (ECP) is much more recent. Investors in CP consist of money market funds, insurance companies, pension funds, other financial institutions and corporations with short-term cash surpluses.

(ii) A Certificate of Deposit (CD)

CD is a negotiable instrument evidencing a deposit with a bank. Unlike a traditional bank deposit which is non-transferable, a CD is a marketable instrument so that the investor can dispose off it in the secondary market when cash is needed. The final holder is paid the face value on maturity along with the interest. CDs are issued in large denominations – \$100,000 or equivalent or higher – and are used by commercial banks as short-term funding instruments. Occasionally, CDs with maturity exceeding one year are issued. When the maturity is less than a year, interest is paid along with redemption of principal. For maturity longer than a year, interest may be paid semi-annually.

Euro CDs are issued mainly in London by banks. Interest on CDs with maturity exceeding a year is paid annually rather than semi-annually. There are floating rate CDs with maturities normally ranging from 18 months to five years on which interest rate is periodically reset, indexed to LIBOR, Federal Reserve CD composite rate, Treasury Bill rate and so forth.

(iii) Banker's Acceptances (BAs)

BAs are instruments widely used in the US money market to finance domestic as well as international trade. In a typical international trade transaction, the seller (exporter) draws a time or usance draft on the buyer's (importer's) bank. On completing the shipment, the exporter hands over the shipping documents and the letter of credit issued by the importer's bank to its (exporter's) bank. The exporter gets paid the discounted value of the draft. The exporter's bank presents the draft to the importer's bank which stamps it as "accepted". A banker's acceptance is created. The exporter's bank may hold the draft units portfolio ask the importer's bank to rediscount it or sell it as a money market instrument.

In addition to those securitized instruments, short-term bank loans are also available. The Eurocurrencies market is essentially an interbank deposit and loans market. Loans ranging in maturity from overnight to one year can be arranged with minimal formalities. Interest rates are indexed to LIBOR.

Repurchase Obligations

(REPOS)

In the US money market, Repurchase Obligations (REPOS) are used by securities dealers to finance their holdings of securities. This is a form of collateralized short-term borrowing in which the borrower 'sells' securities to the lender with an agreement to 'buy' them back at a later time. (Hence the name 'Repurchase Obligations'). The repurchase price is the same as the original buying price, but the seller (borrower) pays interest in addition to buying back the securities. The duration for the borrowing may be as short as overnight or as long as up to a year. The former are called 'overnight repos'. Longer duration repos are 'term repos'. The interest rate is determined by demand-supply conditions. This concludes our brief survey of major short-term funding instruments.

International Equity Financing

(GDRs, ADRs, IDRs)

Equity investment by foreign investors into a country can occur in one or more of three ways. Foreign investors can directly purchase shares in the stock market of the country e.g. investment by FIIs in the Indian stock market. Or, companies from that country can issue shares (or depository receipts) in the stock markets of other countries. Finally, indirect purchases can be made through a mutual fund which may be a specific country fund or a multi-country regional fund.

The Depository Receipts Mechanism

The volume of new equity issues in the international markets increased dramatically between 1983 and 1987 and again after 1989. The '90s saw a growing interest in the emerging markets. From the side of the issuers, the driving force was the desire to tap low-cost sources of financing, broaden the shareholder base, acquire a spring board for international activities such as acquisitions and generally improve access to long-term funding. From the point of view of investors, the primary motive has been diversification. Some of these markets may not be readily accessible except to very high quality issuers.

When the issue size is large the issuer may consider a simultaneous offering in two or more markets. Such issues are known as Euroequities.

Issue costs are an important consideration. In addition to the underwriting fees (which may be in the 3 – 5% range), there are substantial costs involved in preparing for an equity issue particularly for developing country issuers unknown to developed country investors. Generally speaking, issue costs tend to be lower in large domestic markets such as the US and Japan.

Depository Receipts

(ADRs, EDRs, and GDRs)

During the late '80s, a number of European and Japanese companies have got themselves listed on foreign stock exchanges such as New York and London. Shares of many firms are traded indirectly in the form of depository receipts. In this mechanism, the shares issued by a firm are held by a depository, usually a large international bank, which receives dividends, reports etc. and issues claims against these shares. These claims are called “**depository receipts**” with each receipt being a claim on a specified number of shares. The depository receipts are denominated in a convertible currency, usually US dollars. The depository receipts may be listed and traded on major stock exchanges or may trade in the OTC market. The issuer firm pays dividends in its home currency. This is converted into dollars by the depository and distributed to the holders of depository receipts. This way the issuing firm avoids listing fees and onerous disclosure and reporting requirements which would be obligatory if it were to be directly listed on the stock exchange. This mechanism originated in the US, the so-called American Depository Receipts or ADRs. Recent years have seen the emergence of European Depository Receipts (EDRs) and Global Depository Receipts (GDRs) which can be used to tap multiple markets with a single instrument. Transactions in depository receipts are settled by means of computerized book transfers in international clearing systems such as Euroclear and Cedel.

In 1992 following the experience of the first ever GDR issue by an Indian corporate, a fairly large number of Indian companies took advantage of the improved market outlook to raise equity capital in international markets. During the period April 1992 to 1994, almost 30 companies are estimated to have raised a total of nearly US\$3 billion through GDR issues.

From the point of view of the issuer, GDRs represent non-voting stock with a distinct identity which do not exhibit in its books. There is no exchange risk since dividends are

paid by the issuer in its home currency. The device allows the issuer to broaden its capital base by tapping large foreign equity markets. The risk is that the price of GDRs may drop sharply after issue due to problems in the local markets and damage the issuer's reputation which may harm future issues.

From the investors' point of view, they achieve portfolio diversification while acquiring an instrument which is denominated in a convertible currency and is traded on developed stock markets. The investors bear exchange risk and all the other risks borne by an equity holder. There are also taxes such as withholding taxes on dividends and taxes on capital gains.

A major problem and concern with international equity issues is that of flowback, i.e. the investors will sell the shares back in the home stock market of issuing firm. Authorities of some countries have imposed a minimum lock-in period during which foreign investors cannot unload the shares in the domestic market.

Withholding taxes on dividends paid to non-residents reduces the attractiveness of the asset to foreign shareholders and consequently raises the cost to the issuer.

During 1993-94, GDR issues were a very popular device for many large Indian companies. Yields in developing country markets were rather low and many Indian issues offered attractive returns along with diversification benefits. The economic liberalization policy of the government made Indian issues an attractive investment vehicle for foreign investors. In subsequent years, a variety of problems with the workings of the Indian capital markets – lack of adequate custodial and depository services, long settlement periods, delivery and payment delays, suspicions of price rigging etc. – led to the wearing off of investor enthusiasm.

The world market capitalization of bonds is larger than that of equity. The international market for bonds comprises three major categories: domestic bonds, foreign bonds and Eurobonds.

Domestic bonds are issued by a domestic borrower in the domestic market, usually in domestic currency.

Foreign bonds are issued on the domestic market by a foreign borrower, usually in domestic currency. The rules and regulations governing issuing and trading procedures are under the control of the domestic authorities.

Eurobonds are issued in countries other than the one in whose currency they are denominated. They are not traded on a particular national bond market and, therefore, are not regulated by any domestic authority.

Financing and investing in the international bond markets is both technical and difficult. This stems from the vast diversity in regulation, instruments, terminology and techniques.

The Major Domestic Bond Markets

The globalization of the world's capital markets has introduced an element of competition among the different markets and has enabled borrowers to diversify their financing sources. The World Bank's "global bonds" issued simultaneously in September 1989 on the Eurobond market and the US domestic market are a good example.

Investors also benefit from globalization. The different domestic bond market can offer attractive diversification opportunities. They are also a source of products with unique characteristics arising from the different legal, fiscal and economic systems of the countries where they are issued.

For a firm raising funds in the international capital markets or for an investor managing an international bond portfolio, thorough technical knowledge of each domestic market is a fundamental requirement. This is an especially difficult proposition because there is a wide variety of instruments available. They range from classic fixed interest bonds, through FRNs, zero coupons, convertibles and bonds with warrants attached to the more exotic varieties with simultaneous call and put options or links to an index such as a stock market or gold. Trading and quotation practices concerning the various instruments can vary from market to market. In Europe, dealing and quotations are usually handled by brokers on the exchanges, although Germany, The Netherlands, Switzerland and the United Kingdom do some over-the-counter trading of non-government issues. In the United States most trading in domestic bonds is handled over the counter, while in Japan bond trading takes place over the counter and on the exchanges. When trading is handled over the counter, it is difficult to estimate costs which are hidden in the bid-ask spread. Even when commissions are charged by brokers on the organized exchanges, the fact that they are negotiable makes it hard to come up with an average figure.

Price and yield quotations also differ from market and it is important to know and understand these differences when comparing the relative merits of different domestic bonds.

Asian Currency Market

Asian dollars are the same current account surpluses in dollars used in the Asian continent. Singapore has developed as the centre for this market, particularly after 1968. This market facilitates the use of dollar balances in the Asian continent for balance of payments purposes as well as for investment in development projects. It has imparted greater liquidity to the Asian economies whereby larger trade and larger investment became possible in this region. There was also greater co-operation in economic and financial matters as a result of the Asian dollar market in many centres in the region such as Hongkong, Sydney and Manila.

Source and Uses

The main sources of funds for the market came from varied groups individuals, corporations, commercial banks, international institutions, multinationals, the central banks, the governments etc. Thus, a part of the dollar deposits is owned by the US banks and US nationals. Originally, the market had grown without any official favour and as an off-shoot of pure private enterprise. Subsequently, when it reached a state of significant dimensions which no single nation could control, all governments and international institutions began to consider it respectable and partake in its operations. Borrowers and lenders in the market are only banks insofar as the inter-bank segment is concerned. Among the non-bank public, companies in export and import business or in investment business or multinationals in need of funds and governments or central banks for balance of payments purposes figure prominently in the non-bank markets. Among borrowings, bulk of it is for commercial operations by non-bank public and business corporations.

The Euro-currency market has no geographical limits or a common market place. Business is done by telex, telephone and other communication systems. Internationally-reputed brokers put through the transactions for the banks. Deposits are secured for the banks operating in the market by the general guarantee of its parent or holding company and in some cases, by its central bank and /or the government of the concerned country. Similarly, loans to commercial parties are guaranteed by their respective governments. Deposits and loans to banks are, however, not guaranteed except by the banks parent companies or their exchange control authorities.

The amounts of loans and the periods of maturity vary over a wide range from a few thousands to millions of dollars and from call loans to maturities extending up to 10-15 years. Some of the loans may be syndicated and jointly sponsored by a number of banks. There are also varied interest rates of floating rate notes.

Size and Growth of the Market in Euro-Dollars

The Euro-currency market has grown enormously since its inception in 1958. The principal agencies for collection of data on operations in this market are the Bank for International Settlements and the Bank of England. Starting with less than \$ 1 billion in 1958, the market has grown to \$ 100 billion (net size) by 1972 and further to a few thousand billion (net size) by 1972 and further to a few thousand billion early in Nineties. About two-thirds to three-quarters of these funds are in dollars and the rest in various other convertible currencies. In the seventies, the relative importance of non-dollar currencies had increased due to the decline in confidence in dollar and the abandonment of the old Bretton Woods System. The importance of the Bond market has also been growing in recent years. Loans of more than 3 years now constitute a larger portion of total loans than before.

Techniques of Operations

Deposits of currencies are made against a certificate given by the bank. These certificates of deposits are bearer bonds and transferable by endorsement and a market has been developed in them. This is the secondary market which imparts liquidity to the depositors as these certificates can be discounted with the banks dealing in this market.

The loan operations are concluded mostly for short-term duration and if necessary on a revolving basis. Some loans are transacted on a floating interest clause which enable the rate to be varied depending upon the daily interest rates prevailing in the market or on a quarterly or six monthly interest rate review. The long-term loans or bond issues are facilitated by the introduction of revolving credit nature. The increases use of floating rate of interest clause and revolving credit facility and approved performance of the US dollar in the foreign exchange market were responsible for the increase in bond issues in recent years. Multi-currency clause and floating interest rate clauses afford protection to both the borrowers and lenders in the market against a sharp fall or rise in interest rates as well as exchange rates in any currency which influences the Euro-currency market. Basically, short-term funds in the form of deposits are converted into term loans in this market.

Internationally reputed brokers are constantly in touch with the banks dealing in Euro-currencies. Their quotations for borrowing and lending, rates of interest in each currency are advised to the banks early at the start of the trading hours of the day. These quotations give separately for each of the maturities and for each currency are the starting point for offer and bids in the inter-bank market which is the centre piece of Euro-currency market mechanism and which accounts for 80 per cent of the total transactions in the market. The commercial market consisting of loans to the public – both short and medium-term

– is arranged on a syndicated or a consortium basis if the loan is for large amounts. The syndicated loans have become an important segment of the market in more recent years.

In addition to the revolving credit facilities, fixed term facility extending upto 5 or more years has subsequently developed.

Such large scale credit arrangements are made possible by banks operations in the inter-bank market – one bank helping the other banks – or by the syndicated or consortium arrangements among banks. The bulk of growth of the Euro-dollar market must be attributed to the revolving nature of the credits and the gearing ratio on which banks operate.

Importance of the Market

The growth of Euro-currency market has produced far reaching effects on the international financial system and the monetary scene. Firstly, these floating funds have augmented the official international liquidity and helped the financing of deficits in the balance of payments of countries. Secondly, these Euro-currency funds are found useful for private corporate investments and for working capital purposes. Thirdly, the quick and efficient source of funds provided by this market has helped the easing of pressures on the international monetary system, particularly on the dollar and other currencies under strain. Fourthly, it has provided a channel for profitable investment for excess funds of governments, central banks and business corporations. This market has finally opened up avenues for greater international monetary co-operation and integration.

Three major world bond markets-those of the United States, Japan and the United Kingdom – and their most frequently traded instruments.

The US Bond Market

The US bond market is the largest and most active in the world. It is also the one that offer the largest variety of issuers and terms. Government issues are not the whole market, however. There are also substantial components of municipal bonds and mortgage bonds as well as a large and growing sector for corporate issues.

Government Issues

US government bonds are the basic element in many, if not most, international portfolios. About two-thirds of this debt is composed of negotiable instruments with maturities of several days up to 30 years.

Treasury Bills

Treasury bills have maturities of up to one year. They are issued in four main forms: three-month, six-month, one-year and cash management bills with variable maturities. They represent about one-third of the government's outstanding negotiable debt.

Treasury Notes

Treasury notes have maturities from two or ten years. They represent more than half of the negotiable debt issued by the government.

Treasury Bonds

Treasury bonds are issued with maturities of 15, 20 and 30 years. The maturities are chosen depending on the Treasury's perceived financing needs.

Non-Government Securities

i) Mortgage-Backed Securities

A mortgage-backed security is supported by an undivided interest in a pool of mortgages or must deeds held by private lenders or government agencies. The market for mortgage backed securities issued by the governmental agencies is right behind the market for Treasury securities insofar as liquidity and risk are concerned.

International investors have been attracted to this market because of the high returns and relative safety.

ii) Municipal Bonds

Municipal bonds can be divided into two categories: the longer-term general obligations (GO bonds) and the shorter-term revenue notes issued in anticipation of tax receipts or other income. These securities are issued by municipalities, such as state and local governments, to finance schools, roads and other public works.

Corporate Bonds

Issues of corporate bonds are often complex than Treasury bond issues. They sometimes include call options, sinking funds, warrants and indexing terms that complicate estimations of their relative riskiness and worth.

Foreign Bonds

Foreign bonds issued by foreign borrowers are called Yankee bonds. Most operations at this type are generated by Canadian utility companies or foreign governments.

The Secondary Market

Some non-Treasury securities are traded on organized exchanges. Institutional investors that acquire corporate bonds on the primary market attach considerable importance to the potential liquidity of the secondary market. Consequently, they are attracted to the larger issues.

The Japanese Bond Market

The Japanese government bond (JGB) market is the second largest in the world behind the US Treasury market. The central instrument of the JGB market is the ten-year bond, accounting for over half of public government debt and 90% of daily market turnover.

Government Issues

The short term end of the market is less liquid than the long-term sector and most foreigners are barred from it.

Financing Bills

Financing bills are used mainly as instruments for open market operations in pursuit of monetary policy. They are sold mainly to the Bank of Japan and therefore, hold little interest for foreign investors.

Treasury Bills

Japanese Treasury bills resemble US T-bills. They have maturities of three and six months and are issued twice a month at public auction.

Medium-Term Notes

Once in every two months two-year bonds are issued by means of an auction. They pay a semi-annual coupon and are traded in the over-the-counter market.

Zero Coupon Bonds

Five-year zero coupon bonds are issued by means of a syndicate once every two months.

Long-Term Bonds

Long-term bonds are issued once a month in a process that combines an auction with syndicated underwriting. The auction accounts for 60% of the issue and the syndications for 40%. It determines the yield at which will be issued and controls the allocation of bonds among syndicate members.

The Secondary Markets

Trading hours are weekdays from 8.40 to 11.15 a.m. and 12.45 to 5.00 p.m. on the broker to broker (BB) screens. Dealers include securities houses, city banks, trust banks and regional banks as well as a number of foreign firms. Most trades take place over the counter on a bid-ask basis.

Non – Government Issues

Municipal Bonds

Most municipal bonds have a maturity of ten years with semi-annual coupon payments. Different governmental agencies can also issue bonds that may or may not be guaranteed by the government.

Corporate Bonds

Most other Japanese companies prefer issuing bonds directly on the Eurobond market even though the ultimate bondholders are usually Japanese residents. It is also interesting to note that a high proportion of Japanese corporate bonds are either convertible issues or have warrants attached.

The UK Bond Market

UK government debt, called gilts, constitutes the most important sector of the sterling denominated debt market. Of the four classes of gilts issued by the Treasury, only two-conventional and index-linked – currently have any relevance.

Gilt – Edged Securities

Conventional Gilts

Conventional gilts, referred to as conventional stocks in the United Kingdom, represent 85% of the total Market. They have a fixed coupon, ranging from 3% to 15.5% and a fixed maturity.

Index-Linked Gilts

Index-linked stocks represent 15% of the gilt market. The redemption value of the bond is also linked to the RPI to protect the investor against inflation.

The Secondary Market

London Stock Exchange dealings are carried out by telephone by gilt-edged market makers.

The International Bond Market

Organisation of the Eurobond Market

Eurobonds are different from foreign bonds. Foreign bonds are issued by a borrower in a domestic capital market other than its own and usually denominated in the currency of that market. Eurobonds are issued in Eurocurrencies by an international syndicate of banks in several international financial markets. Because Eurobonds are issued and traded on international financial markets, they are not subject to the rules and regulations that are common to most domestic bond markets, although there are inter professional rules and regulations issued by ISMA. Issuers are also subject to the rules and regulations of the monetary authorities in their country of residence. In any case, the development of the Eurobond market is synonymous with the absence of withholding tax.

The first Eurobond borrowing dates back to 1963 when the interest equalization tax (IET) imposed by the United States stopped the development of the Yankee bond market dead in its tracks. A Yankee bond is a foreign bond issued in the US market, payable in dollars and registered with the SEC.

Eurobond issues characteristically have shorter maturities than those found on domestic markets. The large majority of Eurobond issues have maturities less than or

equal to five years. The development of the Euronote facility and Euro MTNs in the 1980s reinforced this tendency. Euronotes are short-term, fully negotiable, bearer promissory notes, issued at a discount to face value and typically of one, three or six-month maturity. Euro MTNs are medium-term bearer notes of small denomination with maturities ranging from one to five years.

Issuing Procedures

Issuing procedures have evolved since the Eurobond market's inception. At the beginning, the traditional issuing procedure, called "European", was cumbersome. Syndicates often contained as many as several hundred members for the jumbo loans of USD 1 billion or more. Final investors were institutions like pension funds, investment funds and insurance companies, as well as private individuals attracted by the absence of withholding tax and the anonymity of bearer certificates.

"European" Issue Procedure

The European issue procedure starts with a lead manager who has a mandate from the borrower to organize the operation. As in the Euroloan syndication, the lead manager is responsible for negotiating the overall conditions of the issue concerning the coupon, price, maturity, etc. He is also responsible for organizing the syndicate by finding other banks that want to participate. The borrower, of course, can require the participation of certain institutions and most syndicates will include one or more institutions with the same nationality as the borrower.

These are three major dates in the issue procedure. The first is the launch date when a new issue's invitation telexes are officially sent out to the syndicate. The second is the pricing date, when the final terms of the issue are completed. The third is the closing date, when a new issue's proceeds are paid to the borrower by the lead manager by the borrower.

The entire syndication process can be described in six stages

1. ***Preliminary negotiations and preparation.*** Potential issuers and lead managers negotiate on their respective needs and capabilities. This stage ends with a written proposition to the prospective borrower on the different financing possibilities concerning the amount of the issue, the coupon rate, the maturity and the issue price.
2. ***Preplacement.*** Once the mandate has been received the lead manager starts looking for partners. He sends telexes, confirmed by letter, inviting prospective underwriters

and sellers to participate in the syndicate. On the launch day a prospectus containing the relevant information on the proposed issue is distributed. In the ensuing period – across about two weeks – the institutions that have been invited to participate sound out potential investors and make their decision on whether or not to participate and for how much.

3. ***Fixing the final terms of the issue (pricing day).*** Based on the response to his invitation, the lead manager fixes the final terms of the issue, making any modifications that he feels necessary. Once this has been done, the underwriting agreement is completed and signed by the lead manager and the other underwriters.
4. ***Apportioning securities (offering day).*** On the day following pricing day, the lead manager sends out telexes to the institutions that agreed to participate, stipulating the number of securities that will be allocated to them.
5. ***Placing the issue.*** During the next two weeks the selling group actively places the issue with final investors and the lead manager supervises the grey market to keep the price in line with the issue price.
6. ***Closing the issue (closing day).*** The issuer receives the net proceeds of the issue (amount less commissions). The actual securities are issued and distributed to the final investors.

Bought Deal

In this procedure the conditions are fixed by the lead manager and proposed to the issuer. The issuer has a short time to accept or reject them. This package system is much more rapid than the European procedure and the syndicates much smaller.

Instruments and Trading Techniques

The three main types of Eurobonds are:

- i) Fixed rate issues or straight bonds
- ii) Floating rate notes (FRNs)
- iii) Equity-linked bonds, either convertible or with warrants attached.

The heart of the market consists of the fixed rate issues but, at one time or another depending on market conditions, the other two types have known periods of popularity.

i) Fixed Rate Issues

The face value of a typical fixed rate Eurobond varies between USD 1000 and USD 5000 with maturities of three, five, seven and ten years. Maturities are linked to the economic uncertainty prevailing at any time with different clientele compartments for the different maturities like Short and medium-term maturities in Euro sterling.

On the other hand, longer maturities are destined for institutional investors and are issued by the list system. In this system the managers offer portions of the issue at a fixed price directly to a list system. In this system the managers offer portions of the issue at a fixed price directly to a list of investors who have one day to accept or refuse. The contractual guarantees of a fixed rate issue are typically very stringent. They do not, however, usually include collateral default.

Rates are often fixed as a spread with respect to a benchmark rate in the domestic market of the currency in question, such as US Treasury bonds for the dollar, gilts for sterling, etc. If the issuer is already in the market, the spread is determined in relation to its past issues. If it is new to the market its reputation and credit rating will determine the spread.

ii) Floating Rate Notes (FRNS)

FRN are typically issued with higher face values (USD 5000, 10,000, and 100,000) than fixed rate issues because they are directed at institutional investors. The interest rate is variable and determined periodically. It is quoted as a discount or premium to a reference rate, such as six-month Libor + 1%. This spread can be fixed once and for all or can vary over time. The reference rate is often Libor but other reference rates are also common such as the T-bill for the dollar. The periodicity of the reference rate determines the reference period for the FRN. Thus, the interest rate on an FRN referenced to one-month Libor would be revised monthly and the interest rate on an FRN referenced to three-month Libor would be revised quarterly. Semi annual is the most common reference period.

Minimax and Capped FRNs

FRN have traditionally been issued with a minimum rate embedded in the contract. Some, called minimax FRNs, have been issued with a minimum and a maximum rate. Others called capped FRNs, have been issued with only a maximum rate. A minimum rate is an advantage for the investor while a maximum rate is an advantage for the issuer.

Convertible and Drop Lock FRNs

Some issues give the investor the right or the obligation to convert the FRN into a long-term fixed rate bond. Convertible FRNs give the investor the option of converting and are similar to debt warrant FRNs. Drop lock FRNs make conversion automatic if the reference rate falls below some designated floor value.

Equity-Linked Bonds

Equity-linked bonds are associated with the right to acquire equity stock in the issuing company. Some have detachable warrants containing the acquisition rights, while others and directly convertible into a specified number of shares.

The market value of a convertible bond can be separated into two parts: the naked value and the conversion value. The naked value is obtained by valuing the bond as if the conversion option did not exist. The conversion value of the bond is added to the naked value to determine the market value of the whole bond.

Other Instruments

(I) Euronote Facilities

The Euronote facility was a major innovation in the 1980s. It is a cross between a short-term bond and a bank loan. It allows a borrower to issue short-term discount notes via a variety of note distribution mechanisms (Euronotes, Euro CP and Euro CDs) under the umbrella of a medium or long-term commitment from a group of banks. The banks are committed to purchasing the notes at a predetermined rate or maximum margin, if the notes cannot be placed with investors at or under the margin. The issuer thus has access to medium or long-term financing using short-term negotiable securities, which helps reduce the cost of borrowing. The cost is further reduced if the term structure is upward sloping.

i) Euro commercial Paper

Commercial paper is negotiable, short-term notes or drafts of a governmental agency, bank or corporation. The first Euro-commercial paper dates back to 1971 in response to US regulations on foreign investment. The market really began to develop, though, in the early 1980s and took off in 1986. In fact Euro CP can be considered a refinement on the Euronote facility because it requires no backup credit. Since 1986 Euro CP facilities have outnumbered Euronote facilities by a large margin.

ii) Euro MTNs

Euro MTNs have maturities of one to five years, fixed coupons and are issued under a program agreement or through one or more dealers. They are small denomination bearer paper listed on the London or Luxembourg stock exchanges.

II. The Secondary Market

We have already pointed out that most Eurobonds are registered with a stock exchange during the issuing procedure, most trading is done over the counter.

Syndicated Eurocredits

A Eurocurrency is any freely convertible currency, such as a dollar or a yen, deposited in a bank outside its country of origin. It is a major source of international liquidity and figures prominently in determining exchange rates and financing balance of payments disequilibrium. The retail side of the Eurocurrency market is also important. It is one of the major sources of large-scale financing for a wide range of countries, institutions and firms. Because of the increasing tendency of banks to securitize their riskiest assets, it is also a source of many bonds that are traded on the international bond market.

Eurocurrency credit facility is that it can be mobilized quickly and easily. The documentation is standardized and simple and there is no waiting list to respect as there is in the Eurobond market.

Characteristics of Syndicated Eurocredits

1) The Lead Manager

Syndication refers to a number of banks grouping together to make a loan to one borrower. It is usually because of the size of the loans involved. The number of banks participating in a syndication can go as high as 100 or more but there is a precise hierarchy within the syndicate corresponding to each bank's responsibilities. The lead manager has the most important role in organizing the loan from beginning to end and is always a large, internationally recognized bank. The lead manager is responsible for negotiating the overall conditions of the loan concerning rates, maturities, guarantees, etc. with the borrower. It is also responsible for organizing the syndicate by finding the other banks that want to participate. Sometimes a syndicate will include two or more lead managers.

Organizing the Loan

As the head of the syndicate, the lead manager is responsible for drawing up the placing memorandum that is then sent out by telex to certain banks that might be interested in participating in under-writing the loan. The placing memorandum is a confidential document that contains all the relevant information about the borrower and the placement. Generally, banks that are contacted for participation are regular partners of the lead manager. Experience has shown, in fact, that syndicates tend to remain stable over time and there is a strong tradition of reciprocity among members.

Different Types of Credits

There are two basic categories of Eurocurrency credit facilities: term loans and revolving credit facilities. A term loan can be divided into three stages: the drawdown period, the grace period and the **redemption period**. During the drawdown period, which usually lasts about 24 months, the borrower can increase the amount of his loan. The increases can be by simple advance notification or they can be scheduled contractually. The grace period comes after the drawdown period. During this time, the amount of the loan does not change and the only cash flows are those related to interest and commissions. The redemption period refers to the period when the loan is paid off. It can be paid off in one single installment, called a bullet repayment, or in several installments, called staged repayments. As already mentioned, most Eurocurrency loans give the borrower the right to prepay the loan with no penalty.

A **revolving credit facility** is a loan that permits the borrower to drawdown and repay at its discretion for a specified period of time. This increased flexibility has a cost paid in the form of a commission, called the commitment fee. The commitment fee is paid on the unused portion of a facility. A revolving credit is especially useful for borrowers with access to the other segments of the international financial markets who might need a bridging loan to tide them over between the end of one issue and the beginning of another.

Term loans and revolving credit facilities are only the generic types of syndicated Eurocredits. Multi-currency loans give the borrower the possibility of drawing the loan in several different currencies. This is especially useful for managing exchange rate risk. Maturities are also flexible. Most Euroloans are medium term, lasting from four to eight years, but it is not surprising to find maturities of up to 20 years.

Self Assessment Questions

- 1) Write a note on American Depository Receipt (ADRs)
- 2) Discuss the features of GDR
- 3) What is a Eurobond and how does it differ from a domestic bond?
- 4) What is the issuing procedure for a Eurobond ?
- 5) Why are Euro loans attractive to borrowers.
- 6) Describe the process for organizing a syndicated loan.
- 7) What is the difference between a term loan and revolving credit facility.
- 8) What factors aid in making the international capital markets move integrats? Explain the importance of emerging capital market in international investing.
- 9) What is the difference between a money market and a capital market ?
- 10) What is the difference between an intermediated and a nonintermediated financial market ?
- 11) What is the difference between an internal and an external market?
- 12) What are the characteristics of a domestic bond? An international bond? A foreign bond? A Euroband? a global bond ?
- 13) What are the benefits and drawbacks of offering securities in bearer form relative to registered form?
- 14) What is an equity-linked Eurobond ?
- 15) Summarise the various considerations that enter into the decision to choose the currency, market and vehicle for long term borrowing.
- 16) What are the crucial aspects in negotiating a syndicated bank loan.

CASE STUDY

Case Study - 1

Indian Leather Exports, an important foreign exchange earner for the country, has been reportedly hit hard by the decision of some major US retail chain like Eddie Bauer, LL Bean, Timberland and Casual Corner, and a German Company Bader to boycott leather goods from India in protest against the ill-treatment of animals here. This move came shortly after a decision by global retail chains Gap, Marks & L.Spencer, Liz Claiborns and J.Crew not to buy Indian leather goods. This development has a lot to do with the lobbying

by the US-based animal rights group People for Ethical Treatment of Animals (PETA) for a ban on leather goods from India by documenting evidence of “cruelty to animals” killed for making leather. It has been reported that the overseas firms have officially communicated to the Indian outfit of PETA that they will not be sourcing leather products from India until there is strict enforcement of animal protection laws. Following this, the Mumbai-based Teja industries, the official supplier of leather goods for Marks & Spencer in India started out-sourcing leather from other countries to manufacture products for the global chain.

Questions

- (a) In the light of the above, discuss the implications of social activist groups for business.
- (b) With reference to this case, discuss the failure of the governments, Council for Leather Exports and the leather industry and the lesions of this case.
- (c) What should the governments, Council for Leather Exports and the leather industry do to overcome the problem?

Case Study - 2

Government of India makes a gift ₹ 50 millions to a neighboring country. Subsequently the recoup countries use the money to buy medicines, food, and so on from Indian suppliers. How would these transactions affect India’s BOP?

Case Study - 3

You are just one week young in your job as a treasury executive in a leading laptop trader/supplier in India. Earlier your company was sourcing assembled laptops from China, but with the incentives provided in the Budget by the Finance Minister of India, your company is planning to enter assembly/manufacturing market in India. Now your company is planning to source components and sub assemblies from Taiwanese firms. This will involve a lot of foreign exchange trading and contracts. Since you are from a leading university in India, your CFO has asked you to make presentation to the top management on various possibilities relating to forex market in India.

Question for Discussion

What is all that you would like to tell the top management so as to establish your credibility?

Case Study - 4

Germany would like Indian computer software companies not only to set up 'body shops' but also promote joint ventures for long-term economic ties between the two countries. Give your strategy for it.

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