UNIT - 1

INTERNATIONAL FINANCIAL MANAGEMENT

International Financial Management may be defined as the management of the whole gamut of financial operations relating to international activities of business organizations. These activities include expansion of existing business in foreign countries, decision of setting up a plant abroad or participating in the investment in another country. Setting up of joint ventures, exporting and importing of goods and services, financing of subsidiaries abroad and distribution of dividends on the profits earned by a multinational are the activities which involve international financial transactions.

INTERNATIONAL MONETARY SYSTEM

International transactions and resulting balance of payments problems need to be solved so that international operations do not suffer. Adequate finances are to be arranged (particularly for less developed/developing countries) so that international transactions take place smoothly. In the context of international trade, the problems that crop up relate to: (i) liquidity, (ii) adjustment, and (iii) stability.

Liquidity is necessary to finance the transactions that are done on cash basis. Adjustment is needed to bridge the gap that emanates because of imbalance between- demand and supply at existing exchange rates. Similarly, stability is necessary with intent to limit the degree of uncertainty in international business decisions.

International monetary system addresses itself to provide mechanisms to solve the above problems. Since these cannot be solved by any nation in isolation, it is desirable that all interacting nations agree to a certain *modus operandi* to find solutions to common problems.

EVOLUTION OF INTERNATIONAL MONETARY SYSTEM

There has been a rapid growth of the international monetary system, over the period. It has successfully tackled periods of stresses and strains. It has passed through a period of transition from the system of fixed exchange rates to the system of floating rates.

Gold Exchange Standard was the first major step towards the establishment of an international monetary system. This system was put into effect in 1850. The participants were the UK, France, Germany and the USA. In this system, each currency was linked to a weight of gold. The system was institutionalized at the Conference of Genes in 1922. Since gold was convertible into currencies of the major developed countries, central banks of different countries either held gold or the currency of these developed countries. But after the Conference of Genes (1922), there was tremendous speculative activity accompanied by economic crisis, high inflation in Germany, protectionism following the crisis of 1929, competitive devaluations for providing impetus to exports, and finally the Second World War.

THE SYSTEM OF BRETTON WOODS (1944-71)

A conference was held at Bretton Woods in the USA, in July 1944, in order to put in place a new international monetary system. The major objectives of this conference were: (i) to review the existing rules, (ii) to devise a system to encourage international monetary cooperation, and (iii) to establish an international institution to ensure good Sanctioning of the system.

Main characteristics of the international monetary system developed at Bretton Woods can be summarized as follows:

• Fixed rates in terms of gold (i.e. a system of gold standard), but only the US dollar was convertible into gold as the USA ensured convertibility of dollars into gold at international level.

• A procedure for mutual international credits.

• Creation of International Monetary Fund (IMF) to supervise and ensure smooth functioning of the system. Countries were expected to pursue the economic and monetary policies in a manner so that fluctuations of currency remained within a permitted margin of ± 1 per cent That is, the central bank of every country had to intervene to buy or sell foreign exchange, depending on the need.

• Devaluations or reevaluations of more than 5 per cent had to be done with the permission of the IMF. This measure was necessary to avoid chain devaluations like the ones which occurred before the Second World War.

INTERNATIONAL MONETARY FUND

The International Monetary Fund had 44 countries as its members in 1946. Currently almost all the countries (178) are members of this institution. The only exception is Cuba. The main functions of the IMF are:

- to help member countries in stabilizing their currency;
- to supervise the evolution of exchange rates and provide guidance to countries on their exchange rate policies;
- to accord temporary financing to tide over balance of payments difficulties.

Activities of the IMF

Good functioning of the international monetary system requires:

- appropriate adjustment mechanisms;
- an attentive surveillance of the policies adopted by the member states relating to the exchange rate.

Member countries have an absolute claim on the IMF up to the amount of gold subscriptions they have made. In operational terms, they can draw this amount (equal to 25 per cent of their quota) from the IMF any time. This is called *reserve tranche* (or *gold tranche*) and is treated as the reserve of the country concerned. However, this sum is to be reimbursed to the IMF within a specified period varying between 3 months to 5 years.

Beyond 25 per cent, a country can draw upon its credit tranche: the additional credit the IMF can grant. The credit tranches consist of the amount of drawings beyond the reserve or gold tranche that would raise the Fund's total holdings of that country to 200 per cent of the quota. Temporary increases of the credit tranche to 400 per cent of the quota have been allowed in the past Approval from the IMF is necessary for a country to draw on its credit tranche. This approval usually comes with restrictions that become increasingly tight as the drawings on this credit rise. Thus, this additional credit is used more often to finance temporary disequilibrium in balance of payments than to provide temporary liquidity.

Besides the reserve (or gold) and credit tranches, the IMF has three permanent credit facilities: (i) the compensatory financing facility (established in 1963 and liberalised in 1975); (ii) the buffer stock financing facility (established in 1969); and (iii) the extended facility (established in 1974 and expanded in 1983). There are other temporary facilities created in response to specific needs such as oil price increases, and the Special Emergency Fund created by the General Agreement to Borrow (GAB).

THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT (THE WORLD BANK)

This institution was also created at the time of the creation of the IMF. Initially, its principal role was to facilitate the reconstruction of the countries affected by the Second World War and to aid these countries to develop their economies. The EBRD has two other associated institutions, namely the International Finance Corporation (IFC) and the International Development Association (IDA), established in 1956 and 1960 respectively.

The Role of the IBRD

The Bank accords debt financing of long-term, for periods up to 15-20 years. Financing is done for (i) the development of infrastructure such as roads, rail, telecommunications, (ii) the development of energy resources, electricity, gas and petrol; (iii) the regional development programmes, irrigation projects, agricultural development, education, and the projects to promote investments in small and medium enterprises,

The Bank also gives technical assistance. It participates in numerous research projects and economic studies with other organizations to finance the projects in different fields such as education, health and agriculture.

Loans are provided to governments or to enterprises with their government as guarantor. The projects should be economically viable and the income generated should suffice to refund the loan within the prescribed time limits. Interest rates are contingent to the rates of the Bank's borrowing.

THE INTERNATIONAL MONETARY SYSTEM SINCE 1971

The system of Bretton Woods worked satisfactorily for many years but difficulties started from 1958 when the trade balance of the USA became highly negative and a very large amount of US dollars was held outside the USA; it was more than the total gold holdings of the USA. Anticipating a devaluation of the US dollar, speculators bought gold while other governments demanded conversion of US dollars into gold.

To remedy this situation, a 'gold pool' was established with the cooperation of the UK, France, Germany, Italy, Belgium, the Netherlands and Switzerland. The gold pool was used to sell gold to maintain its price 'at \$ 35 per ounce. In return, the USA was expected to improve its external trade.

But since the US could not reduce its trade deficit, some of the European countries started demanding again for conversion of their dollar holdings into gold. Finally, the 'gold pool' arrangement broke down. Eventually, a series of devaluations and speculations led to breaking down of the fixed rate system of Bretton Woods.

On 15 August 1971, President Nixon of the USA suspended the system of convertibility of gold and dollar. For some time, the system of fixed-rates with an adjustment margin of \pm 2.5 per cent was tried but did not work. Finally, the fixed rate system was abandoned and the floating rate system came into effect

In December 1971, the Smithsonian Agreement was signed at Washington; its major features were

- devaluation of the dollar and revaluation of other currencies; gold passed from \$ 35 per ounce to \$ 38;
- new fluctuation margins: changing *from* \pm 1 per cent to \pm 2.25 per cent;
- non-convertibility of the dollar.

EUROPEAN MONETARY SYSTEM

m 1978, the European Council decided to establish a European Monetary System (EMS). With effect from 1 January 1993, the Internal European Market has become operational, m 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.

CHARACTERISTICS OF THE EMS

The following are the major characteristics of the EMS:

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

The EMS has led to closer cooperation among the countries of the European Union.

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.

The EMS is based on the following three foundations:

(a) Relative weightage of each member country currency with respect to the ECU; the composition of the ECU is shown in Table 4.1.

(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 per cent around central parities. 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 per cent

(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 hank.

EVOLUTION OF THE EMS

The development of EMS can be described in two phases (1979 to 1987, and 1987 onwards).

The EMS between 1979 and 1987

During the first phase of 1979 to 1987, the EMS passed through a period of several realignments. Because of economic divergence, many currencies had to be devalued or re-valued Table 4.3 provides a brief account of devaluation and re-evaluation of currencies of member states of EU during 1979-87.

•	
1979	
24 September	Re-evaluation of Deutschmark (2 per cent)
	Devaluation of Danish kroner (3 per cent)
30 November	Devaluation of Danish kroner (5 per cent)
1981	
22. March	Devaluation of lira (6 per cent)
04 October	Re-evaluation of Deutschmark and Dutch guilder (5.5 per cent) Devaluation of French franc (3 per cent) and lira (3 per cent)
1982	
21 February	Devaluation of Belgian franc (8.5 per cent) and Luxembourg franc (8.5 per cent)
	Devaluation of Danish kroner (3 per cent)
12 June	Re-evaluation of Deutschemark and guilder (4.25 per cent) Devaluation of French franc (5.75 per cent)
	Devaluation of ma (2.75 per cent)
1983	
21 March	Re-evaluation of Deutschmark (5.5 per cent)
	Guilder (3.5 per cent), Danish Kroner (2.5 per cent) Relation france (3.5 per cent)
	Devaluation of French franc and lira (2.5 per cent)
	Devaluation of Irish pound (3.5 per cent)
1985	
22 July	Re-evaluation of Deutschmark, Dutch guilder, Danish kroner,
	French franc, Belgian franc, Luxembourg franc, Irish pound
	(2 per cent)
	Devaluation of lira (6 per cent)
1986	
6 April	Re-evaluation of Deutschmark and guilder (3 per cent)
	Re-evaluation of Belgian franc, Luxembourg franc and
	Danish kroner (1 per cent)
	Devaluation of French franc (3 per cent)
4 August	Devaluation of Irish pound (8 per cent)

Readjustments of Currencies in the EMS (1979-87)

Note: Figures in brackets indicate appreciation/depreciation.

The EMS after 1987

During the period after 1987, some additional currencies have entered the EMS. The peseta entered in 1989, with a fluctuation margin of 6 per cent On 8 October 1990, the pound sterling entered with the same fluctuation margin of 6 per cent Norway, Sweden and Finland decided unilaterally to link their currencies with ECU with different fluctuation margins. Table 4.4 provides a summary of the readjustment of currencies that have taken place during 1987-95.

1987	
11 January	Re-evaluation of Deutschmark and Dutch guilder (3 per cent)
1990	
8 January	Devaluation of lira (4 per cent)
8 October	Entry of pound sterling (with fluctuation margin of 6 per cent)
1992	
13 September	Devaluation of lira (7 per cent)
16 September	Exit of lira and pound sterling from EMS
23 November	Devaluation of peseta and escudo (6 per cent)
1993	
30 January	Devaluation of Irish pound (10 per cent)
12 May	Devaluation of peseta (8 per cent) and escudo (6.5 per cent)
2 August	Widening of fluctuation margin to 15 per cent
1995	·
7 Јапиагу	Integration of Austrian schilling in the EMS
1996	
25 November	Re-entry of the Italian lira in the EMS

Table 4.4 Readjustment of Currencies in EMS (After 1987)

UNIT - 2

FOREIGN EXCHANGE RISK

Exchange rate risk (ERR) is inherent in the businesses of all multinational enterprises as they are to make or receive payments in foreign currencies. This risk means eventual losses incurred by these enterprises due to adverse movements of exchange rates between the dates of contract and payment. However, ERR does not imply tfiat it will result into losses only. Gains may also accrue if the movement of rates is favourable. Tims, the appreciation of dollar in 1985, for example, was beneficial for those enterprises that exported to the USA and billed in US dollars. Conversely, the American companies exporting outside and billing in other currencies suffered losses. Similarly, the depreciation of US dollar in 1995 caused losses to the non-USA companies whose exports were billed in US dollars and proved profitable for the USA companies exporting and billing in non-US dollar currencies.

EXCHANGE RATE RISK OF AN ENTERPRISE

Multinational enterprises are subject to the following three types of risks/ exposures:

- Transaction Exposure
- Consolidation Exposure
- Economic Exposure

Transaction Exposure

Whenever there is a commitment to pay foreign currency or possibility to receive foreign currency at a nature date, any movement in the exchange rate will affect the domestic value of the transaction. The following situations give rise to transaction exposure:

• trade transactions with foreign countries when billing is done in foreign currencies like exports or imports;

• banking and financial transactions done in foreign currencies like lending and borrowing or equity participation, etc.

Consolidation (or Translation) Exposure

This results *from* direct (joint ventures) or indirect investments (portfolio participation) in foreign countries. When balance sheets are consolidated, the value of assets expressed in the national currency varies as a function of the variation of the currency of the country where investment was made. If, at the time of consolidation, the exchange rate is different from what it was at the time of the investment, there would be a difference of consolidation. The accounting practices in this regard vary from country to country, and even within a country from company to company. There is a great responsibility on the part of corporate finance manager, who is expected to manage the assets and liabilities with fluctuating foreign exchange rates in such a way that the profits and cash-flow levels stick to budgeted levels as far as possible.

Economic Exposure

In an open economy, the strength of currencies of competitors due to relative costs and prices in each country which, in rum, have a bearing on exchange rate and the structure of business itself gives rise to economic exposure which may put companies at a competitive disadvantage. Though this is not a direct foreign exchange risk exposure, the underlying economic factors may become a risk factor.

INTERNAL TECHNIQUES OF HEDGING

There are several techniques which can be used in this category to reduce the exchange rate risk:

- Choosing a particular currency for invoice
- Leads and lags
- Indexation clauses in contracts
- Netting
- Shifting the manufacturing base
- Centre of reinvoicing
- Swaps

Choice of the Currency of Invoicing

In order to avoid the exchange rate risk, many companies try to invoice their exports in the national currency and try to pay their suppliers in the national currency as well. This way an

exporter knows exactly how much he is going to receive and how much he is to pay, as an importer.

This method is a noble one. However, an enterprise suffers under this method if the national currency appreciates; this is likely to result into a loss of market for the products of the company if there are other competitors.

Companies may also have recourse to invoicing in a currency whose fluctuations are less erratic than those of the national currency. For example, in the countries of the European Union, the use of European Currency Unit (ECU) is gaining popularity.

Leads and Lags

This technique consists of accelerating or delaying receipt or payment in foreign exchange as warranted by the position/expected position of the exchange rate. The principle involved is rather simple:

If depreciation of national currency is apprehended, importing enterprises like to clear their dues expeditiously in foreign currencies; exporting enterprises prefer to delay the receipt from their debtors abroad. These actions, however, if generalised all over the country, may weaken the national currency. Therefore, certain countries like France regulate the credits accorded to foreign buyers to avoid market disequilibrium.

The converse will hold true if an appreciation of national currency is anticipated; importing enterprises delay their payments to foreigners white the exporting ones will attempt to get paid at the earliest. These actions may have a snowballing effect on national currency appreciating further.

Indexation Clauses in Contracts

For protecting against the exchange rate risk, sometimes, several clauses of indexation are included by exporters or importers.

A contract may contain a clause whereby pices are adjusted in such a manner that fluctuations of exchange rate are absorbed without any visible impact If the currency of the exporting country appreciates, the price of exports is increased to the same extent or vice-versa. Therefore, the exporter receives almost the same amount in local currency. Thus, exchange rate risk is borne *by* the foreign buyer.

Netting (Internal Compensation)

An enterprise may reduce its exchange risk by making and receiving payments in the same currency. Exposure position in that case is simply on the net balance. Hence an enterprise should try to limit the number of invoicing currencies. The choice of currency alone is not sufficient. Equally important is that the dates of settlement should match.

Bilateral

Netting may be bilateral or multilateral. It is bilateral when two companies have trade relations and do buying and selling reciprocally. For example, a parent company sells semi-finished products to its foreign subsidiary and then repurchases the finished product from the latter.

Multilateral

Netting can equally be multilateral. This is taken recourse to when internal transactions ate numerous, volume of transactions will be reduced because each company of the group will pay or be paid only net amount of its debit or credit

Switching the Base of the Manufacture

In the case of manufacturing companies, switching the base of manufacture may be useful so that costs and revenues are in the same currency, e.g, Japanese car manufacturers have opened factories in Europe.

Reinvoicing Centre

A reinvoicing centre of a multinational group does billing in respective national currencies of subsidiary companies and receives the invoices made in foreign currency from each one of them. It would be preferable, if possible, to locate the reinvoicing centre in a country where exchange regulations are least constraining.

Swaps in Foreign Currencies

Swap is an agreement reached between two parties which exchange a predetermined sum of foreign currencies with a condition to surrender that sum on a predecided date. It always involves two simultaneous operations: one spot and the other on a future date.

There are various types of swaps such as cross-credit swaps, back-to-back credit swaps, and export swaps, etc.

COVERING IN THE FOREIGN EXCHANGE OPTIONS MARKET

An option gives its holder a right (but not an obligation) to buy or sell an asset in future at a price that is agreed upon today. Nowadays, interested investors/ enterprises can deal in options to buy or sell common equity, bonds, commodities and currencies, etc.

The first organized market in options in currencies was opened in Philadelphia in 1982. Many other markets have since developed, for example, at Amsterdam, London, Paris, Montreal, Vancouver, New York, Chicago, Singapore, etc.

It is an instrument that permits its holder (buyer or owner) to take advantage of a favourable evolution of exchange rate. It is taken recourse to by companies to cover the exchange rate risk. There exist two types of options: call and put options. These are bought or *old at a premium, which is paid to the writer of the option, usually in local currency per unit of foreign currency.

Call Option

The holder of a call option acquires a right but not an obligation to buy a Certain quantity of foreign currency at a predetermined price (also called exercise or strike price). A writer (or seller) of a call option has an obligation to sell a certain amount of foreign currency at a predetermined price.

Put Option

The holder of a put option acquires a right but not an obligation to sell a certain quantity of foreign currency at a predetermined strike price. The writer of a put option has an obligation to buy a certain amount of foreign currency at a predetermined price. Thus, it is the holder (buyer or owner) of an option who has a choice to use or abandon the exercise of the option whereas the seller of an option should be ready to sell (in case of call) or buy (in case of put) the amount agreed upon. The latter has no choice of his own.

It should be noted that unlike stock options, a call option on, say, US dollars is also simultaneously a put option on the other currency of transaction, say, Indian rupees. For, if the

holder has a right to buy US dollars against Indian rupees at a predecided price, then he has also a right to sell Indian rupees at a specified dollar rate.

The option which a holder enjoys could be the one where he can exercise his right any time during the life of the option. This type of option is referred to as of American style. The other type is of European style where the holder can exercise his right only on expiration of, or on, the maturity date.

Premium on Options

The premium paid for buying a put or call option depends upon several factors and is comparable to an insurance premium. The major factors in this regard are:

- The difference between the exercise price and spot price;
- The maturity periods;
- Volatility of price movements;
- Interest rates, etc.

Determinants of Option Value

These are:

- Spot rate;
- Strike price;
- Expiration date (time to expiration);
- Risk free interest rate in the, domestic country;
- Risk free interest rate in the foreign country;
- Volatility of the spot currency rate.

UNIT - 3

INTERNATIONAL FINANCIAL MARKETS

Funds are raised from the international financial market also through the sale of securities, such as international equities or Euro-equities, international bonds, medium-term and short-term Euro notes and Euro commercial papers. The securities market began to grow on a big way after the international debt crisis of early 1980s. Presently, the use of securities is quite extensive. We shall therefore throw some light on the different aspects of these securities,

INTERNATIONAL EQUITIES

International equities or the Euro-equities do not represent debt, nor do they represent foreign direct investment. They are comparatively a new instrument representing foreign portfolio equity investment. In this case, the investor gets the dividend and not the interest as in case of debt instruments. On the other hand, it does not have the same pattern of voting right that it does have in the case of foreign direct investment. In fact, international equities are a compromise between the debt and the foreign direct investment. They are the instruments that are presently on the preference list of the investors as well as the issuers. This has enabled Euro-equity issues to surge to US \$ 7.3 billion during 1990 to US \$ 44 billion in 1995 (BIS, 1997) to US \$ 59 billion in 2000 and to over 70 billion in 2004 (www.IFC.org) from a mere US \$ 2.7 billion during 1985.

Benefits to Issuer/Investor

The *issuers* issue international equities under certain conditions and with certain objectives. *Firstly*, when the domestic capital market is already flooded with its shares, the issuing company does not like to add further stress to the domestic stock of shares since such additions will cause a fall in the share prices. In order to maintain the share prices, the company issues international equities. *Secondly*, the presence of restrictions on the issue of shares in the domestic market facilitates the issue of Euro-equities. *Thirdly*, the company issues international equities also for the sake of gaining international recognition among the public. *Fourthly*, international equities bring in foreign exchange which is vital for a firm in a developing country. *Fifthly*, international capital is available at lower cost through the Euro equities. *Sixthly*, funds raised through such an instrument do not add to the foreign exchange exposure.

From the viewpoint of the *investors*, international equities bring in diversification benefits and raise return with a given risk or lower the risk with a given return. If investment is made in international equities along with the international bonds, diversification benefits are still greater (Levy and Lerman, 1988).

Procedure of Issue

Planning for the size and the governmental approval

When a company plans to issue international equity, it decides about the size of the issue, the market where the equities are to be issued, the price of the issue, and about many other formalities. It approaches the lead manager—normally an investment bank—which has a better knowledge of the international financial market. The lead manager examines the risk factor of the issue as well as its prospect. It suggests about the details of the issue as also whether the shares are to be routed through the American depository or through the global depository. When the lead manager gives a green signal, the issuing company prepares the prospectus, etc. and takes permission from the regulatory authorities.

Role of custodian bank

After getting approval from the regulatory authorities, it deposits the shares to be issued with the custodian bank located in the domestic country. The custodian bank is appointed by the depository in consultatio with the share-issuing company.

When the shares are deposited with the custodian bank, the latter asks the depository located in a foreign country to issue depository receipts in lieu of the shares held. The ratio between the number of shares and the number of depository receipts is decided well before the actual issue. In fact, the fixing up of the issue price or the ratio between the depository receipts and the shares depends upon a host of economic variables. Generally, the issues are priced at discount insofar as the earning per share drops in proportion to the increase in capital. The market price of depository receipt in international market is largely dependent upon earnings potential, industry fundamentals, and macro-economic fundamentals.

Launching of the ADRs/GDRs

The depository, which is a bank or financial institution situated in an international financial centre, functions as a link between the issuing company and the investor. On getting information from the issuing company about the launch, the depository issues the depository receipts. The American depository issues American depository receipts (ADRs), while the depository in the international financial market outside the USA issues global depository receipts (GDRs).

When GDRs are purchased by the investors, the proceeds flow from the depository to the custodian bank and from the custodian bank to the issuing company. The company enters the name of the investor in the register of the shareholders. The investor has the right to surrender GDRs and to take back the investment. For the surrender, the investor deposits the GDRs with the depository who in turn informs the custodian who will issue the share certificates in exchange for the GDRs. The proceeds from the sale of shares are converted into foreign exchange for the purpose of making payment to the foreign investors. It may be noted here that

once the GDR is surrendered in exchange for the shares, such shares cannot be converted back into GDRs.

Again, the investors can sell the GDR back in the issuing company's domestic capital market. In order to discourage this practice, the issuer introduces a clause, known as *lock-in period*, during which this practice is prohibited.

In the process of the issue, the role of underwriting and listing is very important. The lead manager functions normally as an underwriter and charges underwriting fee. The listing agent, who is normally the lead manager, makes an application to the stock exchange for listing. The agent guides the issuing company and helps it file the required documents with the stock exchange. After the formalities are complete, GDRs are traded on the stock exchange. There are also international clearing houses, such as Euro-clear and CEDEL that facilitate the settlement of transactions.

Voting rights

The question of voting rights is also important. Since GDR investors keep changing from time to time, they do not seem very much interested in the voting rights even though these cannot be denied to them. There are different procedures followed in this respect. One is that the issuing company and the overseas depository enter into an agreement which enables a depository to vote either with the majority voters or according to the wishes of the management. In the other procedure, it is understood that the depository votes in the same proportion as the rest of the shareholders do. Again, there is one more alternative where the depository votes in accordance with the instructions of a nominee of the management.

The cost of issue

The cost of international equity is normally not large, although commission, management fee, etc. are paid to the lead manager according to the different functions performed by it. The depository incurs some expenses. These approximate to 3-4 per cent of the issue amount.

INTERNATIONAL BONDS

International bonds are a debt instrument. They are issued by international agencies, governments and companies for borrowing foreign currency for a specified period of time. The issuer pays interest to the creditor and makes repayment of capital. There are different types of such bonds. The procedure of issue is very specific. All these need some explanation here.

Types of International Bonds

Foreign bonds and Euro bonds

International bonds are classified as foreign bonds and Euro bonds. There is a difference between the two, primarily on four counts. *Firstly*, in the case of foreign bond, the issuer selects a foreign financial market where the bonds are issued in the currency of that very country. If an Indian company issues bond in New York and the bond is denominated in US dollar, it will be called a *foreign bond*. On the contrary, in the case of Euro bonds, they are denominated in a 'currency other than the currency of the country where the bonds are issued. If the Indian company's bond is denominated in US dollar, the bonds are issued in any country other than the USA. Then only it will be called *Euro bond*.

Secondly, foreign bonds are underwritten normally by the underwriters of the country where they are issued. But the Euro bonds are underwritten by the underwriters of multi-nationality.

Thirdly, the maturity of a foreign bond is determined keeping in mind the investors of a particular country where it is issued. On the other hand, the Euro bonds are tailored to the needs of the multinational investors. In the beginning, the Euro bond market was dominated by individuals who had generally a choice for shorter maturity, but now the institutional investors dominate the scene who do not seek Euro bond maturity necessarily to match their liabilities. The result is that the maturity of Euro bonds is diverse. In England, Euro bonds with maturity between 8 and 12 years are known as *intermediate Euro bonds*.

Fourthly, foreign bonds are normally subjected to governmental regulations in the country where they are issued. For example, in the case of *Yankee bonds* (the bonds issued in the USA), the regulatory thrust lies on disclosures. In some of the European countries; the thrust lies on the

resource allocation and on monetary control. *Samurai bonds* (bonds issued in Japan) involved minimum credit-rating requirements prior to 1996. But the Euro bonds are free from the rules and regulations of the country where they are issued. The reason is that the currency of denomination is not the currency of that country and so it does not have a direct impact on the balance of payments.

Global bonds

It is the World Bank which issued the global bonds for the first time in 1989 and 1990. Since 1992, such bonds are being issued also by companies. Presently, there are seven currencies in which such bonds are denominated, namely, the Australian dollar, Canadian dollar, Japanese yen, Swedish krona and Euro. The special features of the global bonds are:

- They carry high ratings.
- They are normally large in size.
- They are offered for simultaneous placement in different countries.
- They are traded on "home market" basis in different regions.

Straight bonds

The straight bonds are the traditional type of bonds. In this case, interest rate is fixed. The interest rate is known as *coupon rate*. It is fixed with reference to rates on treasury bonds for comparable maturity. The credit standing of the borrower is also taken into consideration for fixing the coupon rate. Straight bonds are of many varieties. *Firstly*, there is *bullet-redemption bond* where the repayment of principal is made at the end of the maturity and not in instalments every year. *Secondly*, there is *rising-coupon bond* where coupon rate rises over time. The benefit is that the borrower has to pay small amount of interest payment during early years of debt. *Thirdly*, there is *zero-coupon bond*. It carries no interest payment. But since there is no interest payment, it is issued at discount. It is the discount that compensates for the loss of interest faced by the creditors. Such bond was issued for the first time in 1981. *Fourthly*, in case of *bonds with currency options*, the investor has the right to receive payments in a currency other than the currency of the issue. *Fifthly, bull and bear bonds* are indexed to some specific benchmark and are issued in two tranches. The bull bonds are those where the amount of redemption falls with a fall in the

index. *Finally, debt warrant bonds* have a call warrant attached with them. (Warrants are zerocoupon bonds.) The creditors have the right to purchase another bond at a given price.

Floating-rate notes

Bonds, which do not carry fixed rate of interest, are known as *floating-rate notes* (FRNs). Such bonds were issued for the first time in Italy during 1970 and they have become common in recent times. The interest rate is quoted as a premium or discount to a reference rate which is invariably LIBOR. The interest rate is revised periodically, say, at every three-month or every six-month period, depending upon the period to which the interest rate is referenced to. For example, if the interest rate is referenced to one-month LIBOR, it would be revised every month.

FRNs are available in different forms. In the case of *perpetual FRNs*, the principal amount is never repaid. This means they are like equity shares. They were popular during mid-1980s, but when the investors began to ask for higher rate of interest, many issuers could not afford paying higher rates of interest. Such bonds lost their popularity.

Convertible bonds

International bonds are also convertible bonds meaning that these variants are convertible into equity shares. Some of the convertible bonds have detachable warrants involving acquisition rights. In other cases, there is automatic convertibility into a specified number of shares.

UNIT - 4

The decision to invest abroad takes a concrete shape when a future project is evaluated in order to ascertain whether the implementation of the project is going to add to the value of the investing company. The evaluation of the long-term investment project is known as *capital budgeting*. The technique of capital budgeting is almost similar between a domestic company and an international company. The only difference is that some additional complexities appear in the case of international capital budgeting. These complexities influence the computation of the cash flow and the required rate of return.

EVALUATION CRITERIA

Non-discounting Methods

The methods for evaluating investment proposals are grouped as discounting and nondiscounting methods. The non-discounting methods are simple. One such method involves the *average accounting rate of return* earned by the project. It represents the mean profit on account of investment prior to interest and tax payment. The mean profit is compared with the hurdle rate or required rate of return. A project is acceptable if the mean profit is higher than the hurdle rate. Despite being a simple method, it has some shortcomings, namely, it is based on the accounting income and not on the cash flow; it considers profit before tax, rather than post-tax profit. And finally, it ignores the time value.

The other non-discounting method is known as the *pay-back period*, that is the number of years required to recover the initial investment. If the investment is not recovered within the pay-back period, the project should not be accepted. Thus this method stresses on early recovery of funds, but fails to consider the cash flow after the pay-back period and so does not consider profitability over the life of the project. It also fails to consider the time value of money. Nevertheless, non-discounting methods are widely used. Buckley (1996) finds that 10 to 20 per cent of large US multinationals are reported as using the accounting rate of return method as their primary evaluation technique, while 28 per cent are found to have opted for the pay-back period method.

Discounting Methods

Discounting methods take normally three forms:

- 1. Net present value (NPV) method
- 2. Profitability index (PI) method
- 3. Internal rate of return (IRR) method

Net present value (NPV) rule

In this case, projects are accepted where the present value of net cash inflow during the life span of the project is greater than the initial investment. The difference adds to the corporate wealth. The equation is:

$$NPV = \sum_{t=1}^{n} \left[\frac{CF_t}{(1+k)^n} \right] - I_0$$

where

- CF_t = expected after-tax cash flow from t_1 to t_n , cash flow and the terminal cash flow,
 - $I_0 =$ initial investment,

k = risk-adjusted discount rate, and

n = life span of the project.

ADJUSTED PRESENT VALUE APPROACH

Lessard (1979) has developed a technique for international capital budgeting that is known as the *adjusted present value (APV) technique*. It incorporates most of the complexities emerging in the computation of cash flow and in the determination of the discount rates already explained in the preceding sections.

Under the APV technique, the *initial cash flow* consists of the capital cost of the project minus blocked funds, if any, in the host country activated by the project. This amount is converted into the home-country currency at the spot exchange rate.

Similarly, the operating cash flow under the APV technique consists of:

- Present value of after-tax cash flow from subsidiary to parent converted into the home-country currency at the expected spot rate minus the profits on the lost sales of the parent company
- Present value of tax-adjusted depreciation allowances in terms of the homecountry currency

- Present value of the contribution of the project to borrowing capacity in terms of home-country currency subject to adjustment for taxes
- Face value of loan in the host-country currency minus the present value of repayments converted into the home-country currency
- Present value of the expected savings on account of tax deferrals and transfer pricing and,
- Present value of expected illegal repatriation of income.

Terminal cash flow consists of the present value of residual plant and equipment.

It may be noted that for tax adjustment, the APV technique takes into account the higher of the home-country and host-country tax rates. This technique is unique in that it uses different discount rates for different types of cash flows. The cash flow on account of sales and other such revenue is discounted at the all-equity cost of capital; depreciation allowances are discounted at the nominal rate; the contribution of the project to borrowing capacity is discounted at the riskless rate, and the repayment of loans in host-country currency is discounted at nominal interest rate prevalent in the host country. Again, the rate used for discounting the savings on account of taxes and of transfer pricing and illegal repatriation includes the risk premium.

SENSITIVITY ANALYSIS

The focus of the foregoing discussion was on how adjustments are made in the cash flow and the discount rate in the case of international capital budgeting. It is true that the estimated cash flow is fitted into the evaluation rules, such as NPV and IRR. But the question arises as to how the estimates of cash flow vary under different scenarios. For example, if the host country experiences boom conditions, the cash flow will be different from that in case of a normal period or in case of a depression. Again, the subsidiary may substitute the parent company's export partially, or fully, depending upon varying conditions existing in the host country and if the host government agencies are strictly monitoring the international transactions, it will be difficult for the company to employ transfer-pricing techniques and the saving on this account will be minimum. Obviously, it is difficult to foresee the future possibilities and so equally difficult to estimate the future cash flows with complete certainty. Similarly, the cost of capital will vary widely under varying degrees of business, financial and political risk. The varying cash flows

and the varying discount rates under different scenarios will have a bearing on the accept-reject decision. The sensitivity analysis considers the varying scenarios or "what-if scenarios. The purpose is to determine how sensitive the NPV is to alternative values of the input variables.

It may be noted here that when the cash flow is not known with complete certainty, probabilistic techniques are used for this purpose. The magnitude of uncertainty is measured in terms of dispersion from the expected value and then it is included either in the cash flow or in the discount rate. The former is known as the *certainty equivalent approach*, while the latter is known as the *risk-adjusted discount rate approach*. In cases of sequential investment, a decision-tree approach is followed. The readers are advised to consult any book on corporate finance for the analysis of risk.

REAL OPTIONS AND PROJECT APPRAISAL

International investment is more risky than domestic investment insofar as the foreign investor does not know much about the economic, political, and other conditions prevailing in the host country. There is every possibility for changes in the cash flow from the originally anticipated one. If demand falls suddenly, the operation would have to be suspended for some time. If situation does not improve, it may be abandoned. If, on the contrary, demand rises suddenly, operation may be expanded. In the cases where the investor needs more information, the operation may be postponed for some time. These are the options facing the international finance manager. These options are known as the *real options* as they influence the real assets. They influence the international cash flow and therefore form a part of international capital budgeting. At the present juncture, we shall take up only one or two options so that the readers are acquainted with how real options influence the cash flow.

UNIT - 5

INTERNATIONAL ACCOUNTING AND REPORTING

The concept of international accounting is interpreted in different ways that broaden its coverage. *Firstly*, international accounting refers to the principles and practices of accounting followed in different countries. The studies reveal that there is wide diversity in accounting principles and procedures among different countries. The study is not feasible within the limited space of the present chapter, although passing references will be made wherever necessary.

Secondly, international accounting refers to the harmonisation between varying accounting practices prevalent in different countries. This means that a globally accepted set of accounting principles should develop so that the hurdles coming in the way of international transactions on account of varying accounting practices are eliminated and international accounting linkages get stronger. In many cases, international norms have evolved over a period of time. The European Union has issued directives and framed regulations for intra-Union payment accounting. In January 1990, a conference was held in Brussels on the future of harmonisation of accounting standards in the European Union. The United Nations Commission on Trans-national Corporations has done at least something about accounting standards and disclosures of financial information. But still, there is a long way to go, particularly in view of various impediments to standardisation, such as different legal systems, lack of strong professional accounting bodies, and the varying objectives of financial reporting.

Thirdly, international accounting embraces the principles of accounting that are practised for studying and evaluating the financial relationship between a parent company and a subsidiary company or between two or more subsidiaries of a single multinational firm. This is really a more important aspect of international accounting that will be discussed in the present chapter at some length. Our focus will be on how:

- a parent company consolidates the financial statements of subsidiaries with those of its own;
- the figures of financial statements shown in different currencies are translated into those of the home-country currency;
- the inflation factor is taken into account and, more importantly;

• the transfer pricing is practised for maximising profitability or net aggregate output.

CONSOLIDATION OF FINANCIAL STATEMENTS

If a firm sets up its network abroad through opening up of subsidiaries, it will like to evaluate its overall performance. It is done through combining the financial statements of the subsidiaries along with its own. The process of combining of financial statements is known as *consolidation*.

Techniques of Consolidation

There are two ways for consolidating financial statements. One is known as gross *consolidation*. The other is known as *net consolidation*. Under the process of gross consolidation, all the assets and liabilities of the subsidiary are added to the respective values of the balance sheet of the parent company irrespective of the share of the parent company in the equity of the subsidiary. However, the value of the minority interest is shown on the liabilities side of the consolidated balance sheet. Suppose the minority interest accounts for 20 per cent of the subsidiary's equity which amounts to \$ 80,000. The minority interest, which is \$ 16,000 in this case, will be entered on the liabilities side of the consolidated balance sheet. The minority interest in reserves will be indicated similarly on the liabilities side. The entire profit of the subsidiary is added to the profit of the parent company, but the profit accruing to the minority interest is identified and adjusted against the consolidated profit.

Under the net consolidation method, the long procedure of adding up of the whole of the subsidiary's value and then making adjustments for the minority interest is avoided. Instead, the net figures, which depend upon the parent company's share in the subsidiary's equity, are added. This means that the minority interest is excluded from the very beginning.

Whatever may be the method of consolidation of financial statements, the profits of intrafirm transactions are excluded. If it is not done, the profits will remain overstated. Again, if the entire amount of intermediate goods supplied by the parent company to the subsidiary is sold by the latter, there is no accounting problem. But if only a part of it is sold, proportionate share of intra-firm profit is eliminated.

ACCOUNTING OF FOREIGN CURRENCY TRANSLATION

Consolidation of financial statements is a right step in the direction of the evaluation of overall financial performance of an MNC. But the problem arises when the figures of the financial statements of the subsidiaries are expressed in different currencies. This would not have been serious, had there been fixed exchange rate between different currencies., But in a floating-rate regime, volatility of rates creates a problem for translation of figures in different currencies into those of domestic currency of the parent company.

In a volatile exchange-rate regime, the procedure of translation takes into account three types of exchange rate. One is pre-change or historical rate. The other is postchange or current rate. Still another is the average of historical and current rates. Use of different rates gives different results. There is every possibility of loss or gain with changes in exchange rate. In such a situation, two important questions arise. One is which rate should be used for a particular type of transaction. The other is how the translation loss or gain should be treated.

Use of Foreign Exchange Rates

There are four approaches that explain which of the rates should be used for a particular type of transaction. They are current-rate approach, current/non-current-rate approach, monetary/non-monetary approach, and temporal approach. All these approaches have already been discussed in Part III while dealing with translation exposure. However, it may be mentioned that the use of a particular method depends upon whether the finance manager treats the subsidiary as an integral part of the firm or simply as a semi-independent unit. In the former case, for example, the temporal method is normally used; while in the latter, the current method is preferably used, although none of the methods are fool-proof.

Treatment of Translation Gains or Losses

There are broadly three approaches for the treatment of translation losses or gains:

- 1. Deferral approach
- 2. Immediate recognition approach

3. Deferral and amortisation approach

The *deferral approach* suggests that since the translation gains or losses are 'unrealised' having no effect on the cash flow between the parent and the subsidiary, they are not shown in the consolidated income statement. Rather, they accumulate separately as a part of consolidated equity.

The *immediate recognition approach* suggests that the translation gains or losses should immediately be shown in the income statement. The rationale is that the immediate inclusion will enable the financial statement to show the impact of changes in exchange rate.

The *deferral and amortisation approach* is a mixture of the above two approaches. Under this approach, the gain or loss is amortised over the life of the related balancesheet items.

Which of the three approaches should be used depends upon the objective of translation. If it is viewed from the parent company's point of view, the gain or loss is adjusted in the income statement. But if the subsidiary's interest prevails, gain or loss is reflected through increase or decrease in equity in terms of domestic currency of the parent company.