INTERNATIONAL FINANCIAL MANAGEMENT (DBFM05)

(PG DIPLOMA)

ACHARYA NAGARJUNA UNIVERSITY

CENTRE FOR DISTANCE EDUCATION

NAGARJUNA NAGAR,

GUNTUR

ANDHRA PRADESH

LESSON : 1

INTERNATIONAL FINANCIAL MANAGEMENT : AN INTRODUCTION

1.0 Objectives:

After going through this lesson, you should be able to :

- explain the theoretical developments in the International Financial Management.
- highlight various markets like; Foreign Exchange Markets, International Financial Markets, Domestic Capital Markets and their linkages.
- the euromarkets and their linkages
- explain the financial structure and cost of capital in International Business Firms
- International Financial Management and imperfections in Financial Markets.

Structure

1.1 Introduction

Financial Management traditionally focuses upon three key decisions, namely, acquisition of funds, their investment and the payment of dividend. The generally agreed objective and decision criteria of financial management have been to maximize shareholders wealth and maximization of net present wealth. The question that arises now is: Does the focus, objectives and criteria of financial management in a domestic and an international firm differ or are they the same? A commonly agreed answer is that though the focus, objectives and criteria would remain the same, financial management in a multinational firm is more complex. In the context

of domestic firm, movements in exchange rates and country risk are substantially ignored. But in the context of multinational firm, there is no way that we can analyze international financing and investment opportunities and repatriation of dividends without an understanding of the impact of foreign exchange rate and foreign country risk upon the basic model of financial management.

Multinational Corporations have become central actors of the world economy and in linking foreign direct investment, trade, technology and finance, they are driving force of economic growth. Since the world is reduced to an electronic village and global finance has become a reality therefore in a contemporary global corporation financial capital is one of the way in which transnational corporation acquire, organize and manage those assets is of critical importance, not only to the success of those corporations, but also to the development and industrial restructuring of nation states.

1.2 Conceptual Developments in the International Financial Management

The five decades following the second world war have witnessed an enormous growth in the volume of international trade. This was also the period when significant progress was made towards removing the obstacles to the free flow of goods and services across nations. However, today, the case for and against free trade continues to be debated, international trade disputes in various forms erupt between nations every once in a while, and protectionism in novel disguises is raising its head once again. Nevertheless, there is no denying the fact that the rapid economic growth and increasing prosperity in the west and in some parts of Asia is mostly because of this ever-growing flow of goods and services in search of newer and more remunerative markets, and the resulting changes in the allocation of resources within and across countries.

In the perspective of international corporate financial management, the definition of international business and by implication, the international firm, is quite comprehensive; it includes all business activities on which management must make financial decisions, taking into account simultaneously;

a) the conditions prevailing in two or more financial markets
b) regulatory and institutional barriers to the international movement of funds and
c) the changes in the exchange rates of national monies

To illustrate, instead of taking into account one set of national tax rules, one rate of inflation, one set of interest rates, one integrated system of money and capital markets and the assorted institutions, management must now take into account the complex interactions of at least two tax systems, two interest rate structures and two sets of financial institutions when making decisions. The managements has always more alternatives and therefore, better opportunities to attain the firm's objectives; to enhance the value of the business organization by minimizing the cost of funds and the risk to the firm.

Thus, the range of organizations for which the practice and theory of international financial management is relevant is much more inclusive than the traditional concepts of the multinational corporation, which is defined typically as a firm having a substantial portion of its activities and assets deployed in different countries. The concept relevant for financial management comprises all firms that are involved in international business, directly or indirectly, to such an extent that the managerial process must take into account the complexities of a multitasked, multi currency environment. The objective of international financial management is the same as that of domestically oriented financial management i.e. the maximization of the value of the firm. From a corporate perspective, the most important theoretical developments in international financial management can be captured by concentrating on foreign exchange markets, international financial markets, cost of capital, capital structure, capital budgeting etc.

1.3 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.

1.3.1 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. 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.

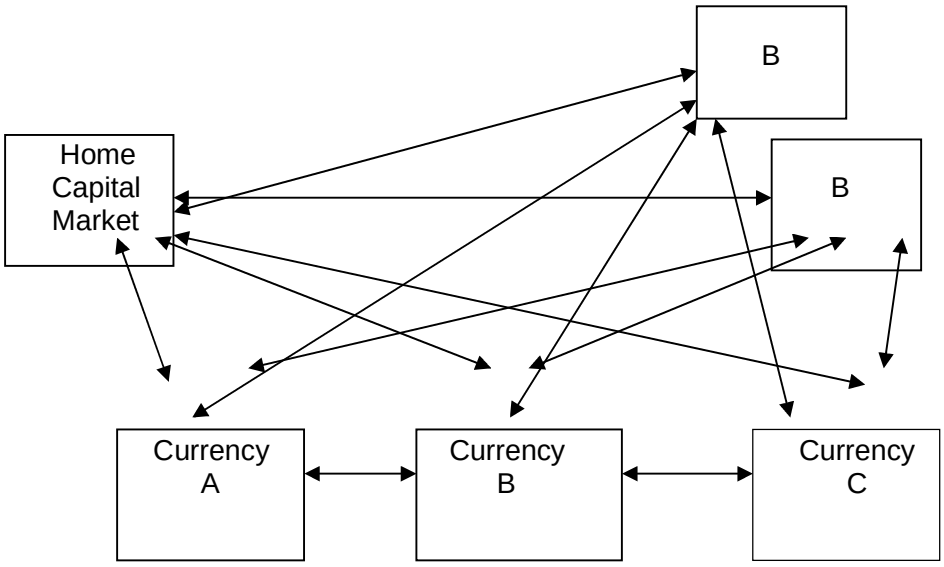
1.4. International Financial Markets

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.

The figure 1.1 illustrates the three sets of markets – home, foreign and euromarkets – 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 euromarkets instrument are close substitutes and no foreign exchange market comes between them. The links among segments of the euromarkets are also very important, since no national controls come between them - in other words, linkages within the euromarkets are perfect, being differentiated only by

Fig: 1.1 Markets of International Finance



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 percepts 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 is 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.

1.5 Cost of Capital

A number of multinational corporations have been able to lower their cost of capital by raising funds in international capital markets and by cross listing on foreign stock exchanges. As a result of the efforts of those firms to internationalise their cost of capital, segmented capital markets have gradually become more integrated and international portfolio investment has flourished. In addition, the investors may purchase the shares of firms which are resident in segmented capital markets. If capital markets are partially segmented, investors cannot gain the full benefit from international portfolio diversification and firms cannot fully lower their cost of capital by selling their securities to foreign investors.

A national capital market can be segmented because of government interference and / or because of investors perceptions. For example, government interference is restrictions on the free movement of capital, either by limiting what domestic securities foreign investors can buy, or by limiting what foreign securities domestic investors can buy. Other examples are discriminatory tax policies, rationing of foreign exchange, and policies which increase

transactions costs in domestic securities markets. Investor perceptions are shaped by the quality of financial disclosures, familiarity with foreign securities markets and institutions. If a country's capital market is segmented, investors resident in that country may not be able to hold an efficient internationally diversified portfolio, and firms resident in the country may not enjoy the lowest possible cost of capital. However, with the proper strategies, transnational firms may be able to raise their funds abroad and gain an international pricing of their securities even though their home market remains segmented.

On the other hand, firms which are too small to tap international capital markets are forced to continue to accept the higher cost of capital typical of their domestic markets. Most institutional investors are very concerned about their ability to sell as well as to buy a firm's shares. The market for shares in a small firm is perceived as being liquid, whether that firm is transnational or domestic. To what extent can the shares of transnational corporation serve as a substitute for investors who wish to diversify their portfolios internationally but cannot find or purchase the shares of firms which are resident in segmented capital markets? Considerable evidence exists to suggest that transnational firms should have a lower cost of capital than their domestic counterparts. Because of that, they may receive a higher valuation by investors who are using their shares for international diversification into segmented markets that they cannot tap themselves. Listing on foreign securities exchanges has a favourable liquidity effect because more investors are available to buy the limited number of a firm's shares outstanding.

1.6 Financial Structure

Modigliani and Miller hypothesis launched the great debate about whether or not an optimal financial structure for a firm exists. Their basic contention was that, under certain very restrictive assumptions about perfect competition, financial structure was irrelevant. They later modified this assertion by recognizing that the tax advantages of debt biases the firm towards a much higher use of debt. The traditionalist always felt that an optimal debt ratio exists in the form of u-shaped cost of capital curve. As a firm takes on debt, the weighted average cost of capital is reduced due to the tax advantages of debt; but when the debt ratio becomes too high, agency and bankruptcy costs, as well as reticence of lenders, raises the cost of capital.

Capital structure decisions are particularly important when financial structure decisions dealing with leverage must be made. The reason why debt/equity ratio matters so much is that it determines the financial risk of the enterprise, because of the contractually fixed nature of payments to debt holders, returns to the owners of equity will fluctuate more in response to given, unanticipated fluctuations of operating returns the higher the proportion of debt relative to equity. The interaction between the tax shield provided by debt and the various cost associated with default provide the theoretical support for an optimal capital structure. And to the extent that these factors are influenced by environmental factors such as tax laws and factors affecting the cost and probability of bankruptcy. One finds significant country factors in the capital structure of MNCs based in various countries.

This rationale is often mistakenly applied in the analysis of funding decisions involving individual, wholly owned affiliates. What is usually overlooked is the fact that such wholly affiliates of MNCs have a distinct and separate debt/equity ratio only if the parent is prepared to

allow the affiliate in question to default on its debt without coming to its rescue. On the other hand, as long as the rest of the MNC group has a legal or an effective moral obligation to prevent the affiliate from defaulting – even if this threatens the survival of the remainder of the group – the individual affiliate has no independent debt/equity ratio.

Since virtually all MNCs feel obliged to their wholly owned affiliates, simply because they cannot afford to lose their financial respectability, the debt/equity ratio of the affiliate is determined by purely institutional factors. Most important among such are:

a) Statutory laws, which prescribe a required minimum equity level in many countries;
b) tax laws, which often treat interest payments differently than payment on equity,
c) exchange control regulations, which are usually less restrictive when interest payments are concerned,
d) expropriation risk, which can be lessened if the parent expects to default on its local debt in the specific case that the lending institutions have also been taken over by the government in question, or the lending institutions are state-owned already.

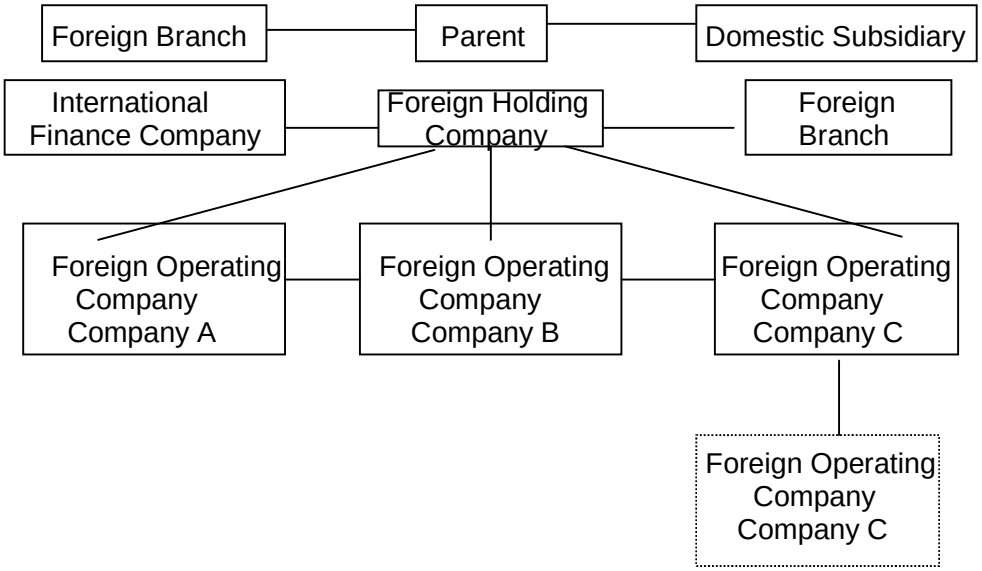
Thus, the debit/ equity decision for foreign affiliates is either a purely legal one – as opposed to a financial decision or it involves strategic questions of ownership to the extent that third-party investors, local or otherwise, own a part of the affiliate's equity. When it comes to making debt/ equity decisions for the parent, or rather the group as a whole, a very difficult issue arises; which markets' standards will govern its acceptable debt/ equity ratio? For domestic firms, the answer is usually quite clear. In different national capital markets, certain target debt/ equity ratios have been established by market forces for different kinds of firms. These acceptable debt/ equity ratios are influenced by the nature of the firm. The problem for the multinational firm is that different national markets differ quite a bit in terms of standards for acceptable debt/ equity ratios, and to the extent that MNCs sell their equity or borrow funds in many countries they must choose a reference market.

Theoretically, this question is largely unsolved because empirical work in finance has not sufficiently progressed to answer the question. Precisely how are financial assets priced internationally? That is, which is a more correct approximation of reality, that markets are separated or that they are integrated? In practice, most MNCs do not have to face this problem head on because the great bulk of the equity is usually held by investors of a national market whose standards dominate the applicable debt/ equity ratio.

1.7 Intra-Company Transfer:

The financial structure decision of a multinational firm and its individual affiliates turn up again when tactical questions of funding international operations are being considered. By their nature MNCs have complicated legal structures, such as that depicted in Figure 1.2.

Fig : 1.2 Legal Structure of a Multinational Corporation



The above figure is a schematic presentation only and in reality an almost infinite number of combinations are possible. For financial management, this raises the question as to which one of the entities should contract with providers of funds. In respect to equity, this is almost invariably the parent company, especially if the firm has a policy of maintaining wholly owned affiliates. With respect to debt, however there are many possibilities. And unless the answer to the question is : “The same affiliate that needs the funds”, another decision must be made right away – how to move the funds through the various corporate entities to their final destination. In turn this decision is directly related to yet another question: In what legal form and in which currency should funds be injected in the affiliate that acquires productive assets? Having affiliates in many financial markets provides the MNC with opportunities to minimize the cost of funds for the corporation by borrowing wherever the effective cost is least.

In practice, however, there are serious constraints that limit these opportunities. The only real advantage that the MNC has in this respect is that it can somewhat more easily circumvent such restrictions because of its particular structure of centrally coordinated, but legally separate entities. For example, many countries have tight controls on direct lending to borrowers abroad. Theoretically, then, a multinational firm can get around this restriction by having its local affiliate borrow the funds and subsequently transfer them in some form to its parent or sister affiliates. Governments, of course, are aware of such operations, too, and they have usually issued all kinds of rules and regulations to prevent such international intra

corporate transfers of funds. However, if these regulations were written and administered too tightly, they would strangle international trade and investment.

Thus, firms usually have some leeway in transferring funds, although their flexibility is much more limited than is usually implied. In an integrated MNC, where each affiliate has dealings with the others, transfer of funds can usually be effected because most are simply necessary to run the operation, regardless of the existence of restrictions. Thus the question is not one of whether or not to shift funds among the MNCs affiliates, but how much and in which direction. This also, highlights the fact that it is often impossible to determine the "correct" arm's length transaction, not only for government but even the corporate controller.

Figure 1.3 : Financial and Real flows in the Multinational firm

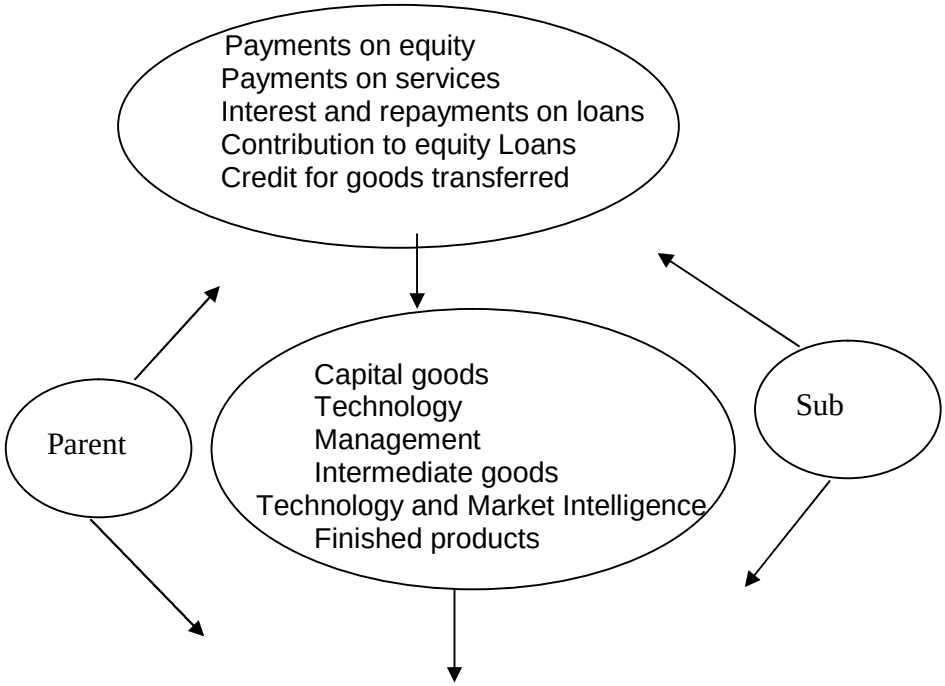


Figure 1.3 depicts the ways that MNCs do have some freedom to move funds internationally is simply based on the fact that funds flow can be effected. Analytically, it is very important to generalize on a point that is made above is respect to the debt/equity ratios. Intra company transfers of funds do not give rise to any change in the cost of funds or the risk of the multinational firms as such. These transfers have an impact only in terms of taxes, exchange controls and other regulatory aspects. The cost of funds and financial risk is affected only when there is a change in the kind or amount of outside sources of funds.

1.8 Capital Budgeting:

In many industrial countries to have huge capital movements in the form of foreign direct investment. The strategic, economic and behavioral motives for foreign direct investment enjoy an immense rich literature. However, the analytical methods used to evaluate specific new foreign direct projects or reinvestment in existing projects, is the subject of capital budgeting,

which is an important topic in the corporate financial management literature. Capital budgeting, which is an important topic in the corporate financial management literature. Capital budgeting for a foreign project uses the same discounted cash flow techniques as are used to evaluate domestic projects. In a true transnational corporation, all projects, foreign and domestic, compete on an equal footing for a piece of all the capital budget. However, the analysis of a foreign project is considerably more complex than for a domestic project for many reasons:

a) Parent cash flows must be distinguished from project cash flows. Each of these two types of flow contributes to a different view of value.
b) Parent cash flows often depend on the form of financing. Thus, cash flows cannot be clearly separated from financing decisions, as is done in domestic capital budgeting.
c) Remittance of funds to the parent must be explicitly recognized because of differing tax systems, legal and political constraints on the movement of funds, local business norms, and differences in how financial market and institutions function.
d) Cash flows from affiliates to parent can be generated by an array of non-financial payments, including payment of license fees and payments for imports from the parent.
e) Differing rates of national inflation must be anticipated because of their importance in causing changes in competitive position, and thus in cash flows once a period of time.
f) The possibility of unanticipated foreign exchange rate changes must be remembered because of possible direct effects on the value to the parent of local cash flows, as well as an indirect effect on the competitive position of the foreign affiliate.
g) Use of segmented national capital markets may crate an opportunity for financial gains or may lead to additional financial costs.
h) Use of host government subsidized loans complicates both capital structure and the ability to determine an appropriate weighted average cost of capital for discounting purposes.
i) Political risk must be evaluated because of political events can drastically reduce the value or availability of expected cash flows.

1.9 Summary

In this unit, we have discussed the introduction of international financial management and its theoretical developments. The common players in the international finance clearly highlighted the foreign exchange markets; international financial markets, domestic markets and their linkages and foreign financial markets, the Euromarkets and their linkages. This unit has also elaborated the cost of capital, financial structure and capital budgeting for multinational corporations.

1.10 Key Words

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

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.

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.

1.11 Self Assessment Questions

1. Explain the main theoretical development in the international financial management.
2. Discuss "The imperfections and linkages of domestic financial markets, Euromarkets and foreign exchange markets provide both risks and opportunities for the international financial manager".
3. What is the effect of market segmentation on corporation's cost of capital?
4. What do you mean by foreign exchange markets? Who are the main players in foreign exchange markets?

1.1.2 Further Readings

Apte.P.G; International Financial Management, Tata McGraw Hill, New Delhi.
Srinivasan, T.S., International Business Finance, Global Business Press, New Delhi.
Stanley, Marjorie T., "Capital Structure and Cost of Capital for the multinational firm". Journal of International Business Studies". 12 , Spring / Summer 1981.

BKSP

LESSON - 2

FINANCE FUNCTION IN A MULTINATIONAL FIRM

2.0 Objectives

After reading this lesson, you should be able to:

under the role of a financial manager in a multinational firm
highlight the importance of the International trade
discuss the role of finance function in a global context
highlight the challenges and opportunities of finance function in a global context .

Structure

2.1 INTRODUCTION

In this lesson, we'll assume the viewpoint of the financial manager of a **multinational corporation (MNC)** with investment or financial operations in more than one country. As corporations extend their operations into international markets, they encounter new opportunities as well as new obstacles and risks. The challenge facing the multinational finance manager is to successfully develop and execute business and financial strategies in more than one culture or business environment.

At the heart of both the opportunities and the risks of multinational operations are the differences among nation-states and peoples of the world. Local cultures create important cross-border differences in investment, financial, economic, political, regulatory, accounting tax environments. The multinational financial manger must be sensitive to these cultural differences in the conduct of both professional and personal life. Because of the far-reaching influence of local business environments on multinational operations, today's multinational financial manger must be well versed in each of the traditional fields of business, including marketing, management of physical and human resources, law, regulation, taxation, accounting, and finance. Successful operation in each of these functional areas depends on knowing the local conventions. Business problems are rarely the province of a single discipline, and the challenges facing multinational corporations are especially prone to be multidisciplinary.

Today's multinational financing manager must also be an expert in several fields within finance. To be able to recognize and evaluate investment opportunities in foreign markets, the manager must understand the capabilities and limitations of traditional investment analysis, must have a plan of attack for entry into and exit from foreign markets, and must be able to value the growth and abandonment options presented by foreign markets.

The financial decisions of the multinational corporation are also richer than those of the purely domestic corporation because of cross-boarder differences in investors' required returns and the multinational corporation's cost of capital. Multinational treasury management requires a through knowledge of the international markets in interest rates and foreign currency exchange, as well as the derivative markets in interest rate and currency futures, options, and swaps. In many ways, today's financial manager must be a jack-of-all-trades as well as master of one-finance.

2.2 INTERNATIONAL TRADE

Importance of international finance cannot really be emphasized without understanding the importance of international trade. This because corresponding to every transaction of goods or services, there is a currency transaction which gives rise to an international payment system. This system is a part of international financial environment and the system becomes wider as the volume in trade and services increases. Below we discuss the reasons for the increasing importance of international finance of which payments system is an integral part.

2.3 REASONS FOR INTERNATIONAL TRADE

International trade had been important since olden times when it was conducted to acquire wealth from other nations to maintain large armies (mercantilist theory). Because of the possession of certain natural resources or invention of production-technologies, the productive capacities of nations and firms have increased tremendously leading to enormous increase in international trade among nations and firms. Over the years, population of the world has also increased resulting in the increased demand for goods and services resulting in economic pressures on economies. This has been more true with developing economies

where this economic pressure has resulted in economic imbalances. These developments have a bearing on economic performance of nations and firms. Broadly speaking, there are six aspects of world economy which have provided importance to international finance. These are:

a) Specialization of nations and trade
b) Opening of economies
c) Globalization of firms
d) Emergence of new forms of business organizations
e) Growth of world trade
f) Need of the development-process of nation

The first two aspects (a and b) explain why nations globalize. The next two (c and d) explain why firms globalize. The globalization of firms and nations leads to expansion of world trade (e). The last aspect (f) reflects the compulsions of developing countries to globalize.

2.4 FINANCE FUNCTION IN A GLOBAL CONTEXT

The finance function in a typical non-financial firm consists of two main tasks, viz., treasury on the one hand and accounting and control on the other (Exhibit 2.1). The treasurer and the controller do not function in watertight compartments. There is a continuous exchange of information and mutual consultations. In many firms, a single person without any formal separation of the two responsibilities may in fact head both the tasks.

How is the finance function different in a multinational context? The basic tasks of both the treasurer and the controller remain the same as in the terms of available choices and the attendant risks.

The following can be enlisted as the key differences:

- The firm must deal with multiple currencies. It must make or receive payments for goods and services in currencies other than its 'home currency', rise financing in foreign currencies and so forth. Thus, it must acquire the expertise to deal in the forex market and learn to manage the uncertainty created by fluctuations in exchange rates.

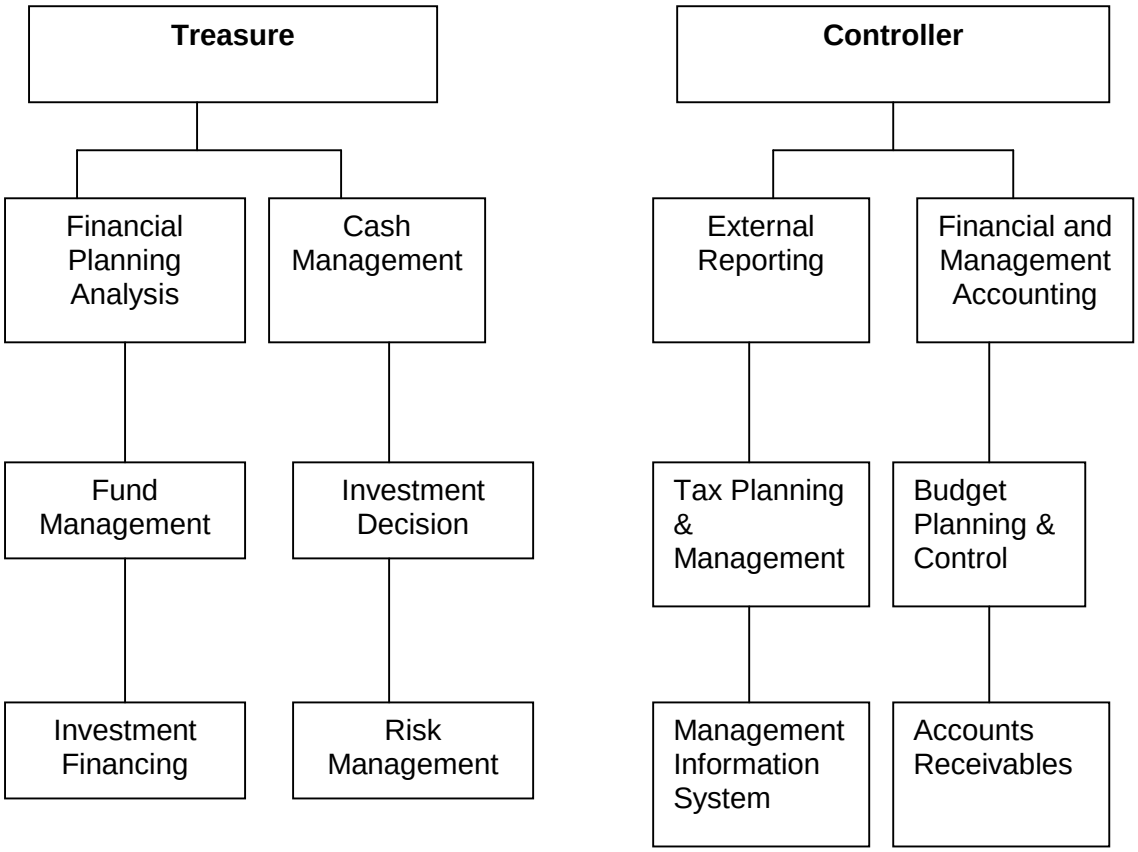
- A treasurer looking for long or short-term funding has a much richer menu of options to choose from when he or she is operating in a multinational context. He/she has different markets- national or offshore-different instruments, different currencies and a much wider base of investors to tap. The funding decision acquires additional dimensions-which market, which currency, which from of funding-that are absent when the orientation is purely domestic.

- Similarly, a treasurer looking for outlets to park surplus funds has a wider menu of options in terms of markets, instruments and currencies.

- Each cross-border funding and investment decision exposes the firm to two new risks, viz., exchange rate risk and political risk. The latter denotes the unforeseen impact on the firm; of events such changes in foreign tax laws, pertaining to interest, dividend and other payments to non-residents, risks of nationalization and expropriation. Over and above, there are other risks associated with these decisions also like interest rate risks and credit risks.

- Cross-border financing and investment also obliges a firm to acquire relevant expertise pertaining to accounting practices, standards and tax laws applicable in foreign jurisdictions.

Exhibit 2.1 The Finance Function in a global Firm



2.5 FINANCE FUNCTIONS OF A GLOBAL MANAGER

Finance functions of a global manager are not different from that a finance manager of a domestically oriented company. The only difference lies in the recognition of additional risks and opportunities present in the global economy. Generally speaking, there are two broad finance functions of a global finance manager. (a) Acquisition (mobilization) of funds, (b) Investment (deployment) of funds. These two broad functions can further be looked in the context of various operational finance functions in a firm. These operational finance functions

can further be categorized in to two types of functions: (i) the treasury functions and (ii) accounting and control functions.

In a firm, treasury functions may be described as: (a) acquisition of funds, (b) Investment of funds, (c) capital budgeting, (d) tax analysis and planning, (e) credit management, (f) investors relations, (g) cash management, (h) risk management, and (i) investment banking. The other class of functions are referred as accounting and control functions, which consist of: (a) external reporting, (b) financial and management accounting (c) tax management, (d) budgeting control, (e) management of information, (f) accounts receivables and (g) preparing forecasts.

All the above functions remain to be same what ever be the kind of organization, a domestically oriented company or multinational corporation (MNC). As we know that finance managers have to perform all the above finance functions in the interest of the firm, i.e., increasing the value of the firm. In doing so the manager has to understand the financial environment facing him. The financial environment of a multinational firm is different and complex as compared to a domestically oriented firm. The finance operating in the complex environment must understand (i) the intricacies of foreign exchange markets, (ii) the activities in the foreign exchange markets, (iii) how exchange rate will move in response to economic movements, (iv) the impact of political developments on the performance of the firm, (v) how the methodology of financial management will change in response to the above changes, and (vi) how to protect or gain from the situations in the international financial environment. This understanding basically defines the finance function of a finance manager operating in a multinational financial environment.

2.6 FINANCE FUNCTIONS OF MULTINATIONAL OPERATIONS

According to the discounted cash flow approach to valuation, the market value of an asset is equal to the present value of its expected future cash flows discounted at a rate appropriate for the level of systematic risk. Let E(CFt) represent a firm's or project's expected cash flow in period t and i_t the corresponding risk-adjusted discount rate over holding period t. then value is determined by

$$V = \sum_t [E [CF_t] / (1+it)^t] \qquad (2.1)$$

The valuation equation has an important implication for the firm's financial decisions. If a corporate decision has no impact on the firm's expected future cash flows or discount rate, then the decision also has no impact on the value of the firm. Conversely, if a decision is to add value to the owners of the firm, then the decision must either increase expected cash flows or decrease the cost of capital or both.

2.6.1 Multinational Investment Opportunities

The set of investment available to the corporation is called its **investment opportunity set.** The corporation's investment objective is to identity and invests in the set of assets that maximizes the value of the firm to its stakeholders. In terms of Equation 12.1, the investment objective of the firm is to choose that set of investments that maximizes the present value of expected future cash flows. This means accepting projects with expected returns that exceed required returns and rejecting projects that do not meet this hurdle.

Multinational operations can improve on the domestic investment opportunity set in number of ways.

Multinational operations allow a multinational corporation to exploit its existing competitive advantages on a larger scale and across a greater range of markets than its purely domestic competitors. In this way, Coca-Cola Corporation has leveraged its internationally recognized brand name into marketing, production and distribution efficiencies that are unavailable to local bottlers.

MNCs often are in a better position than domestic firms to develop new and sustainable competitive advantages. For example, consider a developing country such as Thailand with a need for additional power generation capacity. Thailand is a relatively small country and might need a new power plant only once every several years. Rather than developing the necessary expertise locally, it is cheaper and safer for Thailand to hire a multinational corporation with experience and expertise in coal-fired, hydroelectric, or nuclear power generation. Even large countries such as India China find it advantageous to develop their power generation capacities in collaboration with multinational corporations that specialize in power generation.

MNCs have greater flexibility than domestic corporations in the location and timing of their investments. One of the factors in a site location decision is the possibility of government incentives such as tax or tariff reductions and infrastructure development (roads, rail services, or telecommunications). Competition between local government for capital investment allows multinational corporations to shop around for the most attractive deal. For example, Ford Motor Company announced in 1998 that it was building a $100 million assembly plant in the Philippines. In return, Ford was given a six-year exemption from all national and local income taxes, exemptions from import duties on equipment and machinery, and tax deductions for personnel training. Because of its size and international presence, Ford is in a much better position than local firms to take its time and pick its spots in its site location decisions.

MNCs have more flexibility than domestic firms in their operations as well. In particular, multinational corporations are in a better position than domestic firms to shift sales toward those markets willing to pay higher prices for their products. If Ford's Jaguar subsidiary is in higher-than-usual demand in the United States, then Ford can increase its shipments to the United States and reduce its shipments to regions of lower demand. Similarly, if changes in currency values make parts components from some countries less expensive than others, Ford can use its international network of manufacturing facilities to increase production in some countries and lower production in others. Local competitors do not enjoy this flexibility.

2.6.2 Multinational Financing Opportunities

This objective of financial policy is to maximize the value of the firm by selecting the most appropriate mix of financing instruments, given the firm's investment decisions. Financial policy includes decisions regarding the mix of debt and equity, the currency of denomination of debt and equity, the maturity structure of debt, the markets in which capital is raised, the method of financing domestic and foreign operations, and financial risk management.

Through its access to international markets, the MNC is in a unique position to minimize its cost of capital- and thereby maximize its value- by raising funds from foreign investors who are willing to pay a premium over domestic investors. If the multinational corporation can get a higher price for its debt or equity securities on international markets than in domestic markets, then for a given set of investments it can capture a lower cost of capital than a comparable domestic firm can. The option to raise funds in foreign markets is especially valuable when credit conditions are tight in the home market but not in one or more foreign markets. As with investment policy, the MNC also has more flexibility in the location and timing of its financing choices than the domestic firm has.

2.7 FOREIGN EARNINGS – RUPEE VALUE

2.7.1 Forex:

In the first week of August, 2006 the rupee gained over the US dollar. The Indian rupee was fairly well against the major currencies in the World, holding steady and made good return in some spot forex trades. In the second week, the rupee bounced back as weak outlook on the dollar setoff profit taking. Though heavy corporate demand in the mid-week triggered volatility in the rupee, pulling it down to 46.80 against the dollar. During the second week, the rupee came close to 46.50 barriers, with the dollar facing fresh selling in the post-Bank of England (BoE) and European Central Bank (ECB) hiked their interest rates.

Globally, the dollar weakened against the Euro with the German economy expected to be robust in the second quarter. The six-month premium closed at 1.31 per cent and the one-year premium closed unchanged at 1.3 per cent. According to the treasury analysts the rupee is expected to weaken against the dollar in the coming days due to increasing demand for dollars from importers. But few analysts pointing towards the softer oil prices see the rupee on higher rage against the dollar.

2.7.2 Call Money Market

In the July 2006 Call rates moved in a range of 6.00 to 6.10 percent on account of a 25 basis point hike announced by the Reserve Bank of India (RBI) in the Repo and reserve Repo rates. But there were no reactions in bonds prices with effect to these policies. The average amount received during the month under the RBI's daily Reserve Repo Auction was Rs.45,512 crore against Rs.45,935 crore in the previous month. Also, there were no injections by the RBI through Repo auctions. With an average of more than Rs.45,000 crore deployed in Liquidity Adjustment Facility (LAF), the outflow of up to Rs.17,000 crore towards scheduled auction of dated securities during the coming week will not be expected to cause much strain on liquidity conditions. Treasury officials feel that the central bank announcement on the credit policy will boost the market sentiments, by putting an end to the impending uncertainty on domestic rates. However, the Call rates remained steady in range of 6.00 to 6.10 per cent. The RBI mopped up bids worth Rs.44,385 crore under the reverse Repo auctions at the liquidity adjustment sessions.

2.7.3 Mutual Funds

In the month July 2006, the Mutual Fund (MF) industry in the equity markets saw a net inflow of Rs.20,302 crore as per the data of Association of Mutual Funds of India (AMFI). The growth funds, registered a net outflow of Rs.209 crore as against Rs.1,288 crore in June 2006, while income and liquid funds saw a net inflow of Rs.2,110 crore and Rs.1,023 crore respectively during the same period indicating the investor's preference for safer investment options in the wake of current market volatility. On the other hand, Balanced Funds and Equity-Linked Saving Schemes (ELSS) also saw a net inflow of Rs.55 crore and Rs.86 crore respectively.

However, with the backdrop of uncertainty in the domestic stock markets, Indian MFs are now holding more cash as a proportion of their total assets as compared to the market when it was at its highest peak. On an average, the cash component of total assets held by the domestic MFs has risen to 7 to 9 percent as against 1 to 3 percent in May 2006 when key stock indices had touched on all-time high.

SBI Funds Management Private Limited, launched SDFS-90 Days Fund, a close-end debt scheme to invest in debt, money market instruments and in the government securities. Fidelity Fund Management Private Limited plans to launch its first fixed income fund – a short-term income fund in India. For this, it would invest in debt and money market instruments as it provides better returns on a relative basis compared to cash funds and on the risk return the spectrum would score lower than a longer-term bond fund. They further plan to launch cash fund and core bond fund shortly as part of a plan to offer a bouquet of fixed income funds.

2.8 THE CHALLENGES OF MULTINATIONAL OPERATIONS

2.8.1 Socio-Cultural Differences

An English aristocrat once said, "the only trouble with going abroad is that you have to leave home to do it." People and their cultural norms vary widely around the World. The management and employees of the multinational corporation must deal with unfamiliar business and popular cultures as they seek to extend the firm's competitive advantages into new and unfamiliar markets. Being able to understand, adapt to, and manage cultural differences can make the difference between a successful and an unsuccessful international venture.

Another way to categorize differences in business environments is according to their impact on the multinational itself; in particular, along the traditional functional areas of business: marketing, personnel management, law, accounting, taxes, and finance. The following list characterizes some of the differences that MNC's encounter in cross-boarder operations. The examples are illustrative of the costs and risks of international business, but they are not intended to be exhaustive.

(a) Difference in Languages. The annals of international business are replete with amusing anecdotes involving language differences. One anecdote has General Motors attempting to sell the Chevrolet Nova in Puerto Rico. Literally translated, *no va* means "it goes not." GM renamed the car Caribe for sale in Latin American countries. In another

anecdote, a print advertisement for Coca-Cola but translated as “bite the wax tadpole.” Coke’s advertising slogan “Coke adds life” was literally translated into Chinese as “Coke brings you back from the dead.” True to its multinational nature, Coca-Cola was quick to spot these problems and modify its Chinese advertising program.

(b) Differences in Marketing. Marketing difficulties only begin with differences in language. Far subtler are the many nonverbal differences between cultures. For example, Walt Disney owns and operates the world’s most successful theme parks. At the heart Disney’s success in the United States is their appeal to the entire family. Disney tried to retain this American-style family orientation when it opened its Euro Disney theme park outside of Paris in the late 1980s. But Euro Disney was beset by a long succession of obstacles, including overoptimistic revenue forecasts, labour strife, and political and popular opposition. As if these obstacles were not enough, Euro Disney decided to follow its practice in the United States and refused to sell alcoholic beverages at the theme park. Fortunately for Disney, its equity stake had been kept to a minimum by bringing in a variety of European debt and equity investors in a complex project financing arrangement. Disney’s reputation did take a beating, along with several classes of foreign investors and the reputation of the French government of Francois Mitterrand.

(c) Differences in Distribution Channels. A prolonged stay in a foreign country inevitably means shopping for groceries in the local community. This can be an enjoyable experience because it allows the shopper to catch the “flavour” of the local population. An observant shopper will detect many regional differences in the way foods are distributed. People in U.S. cities are accustomed to large grocery store chains that offer a wide selection of food and nonfood items. These regional and national chains keep expenses low through economies of scale and create value for their stakeholders by internalizing the market for food distribution. In many other parts of the world, groceries are sold in locally owned and operated mom-and –pop stores. Large discount stores owners’ advantage lies in their continuing relations with members of the local community. Because of these cultural differences in shopping habits, size can be seen as an advantage in one country and as a disadvantage in another country. This is just one example of how distribution channels exhibit great variation around the world.

(d) Differences in Personnel Policies. Multinational corporations must adapt their human resource practices and organizational structures to accommodate the types of employees they will employ in their foreign operations. Personnel management policies that work in one culture may not work in another. In other cases, personnel policies developed at home can be successfully exported.

(e) Differences in Legal, Accounting, and Tax Systems. Multinational financial mangers must learn unfamiliar tax laws and tax systems, legal conventions, and business procedures to be successful in foreign countries. An example, governments in developing countries often offer tax benefits in the form of reduced tax rates or tax holidays as an incentive for foreign direct investment. Negotiating these tax benefits and ensuring that they are not revoked subsequent to investment can be a delicate and time-consuming task for top management.

(f) Differences in Financial Markets. The operations of financial markets also vary across countries. The most obvious differences are in the levels of sophistication and liquidity in national financial markets, but differences in financial market operations can be much more profound. For example, banking practices in many Islamic countries are conducted according to the teachings of the prophet Mohammed as found in the Koran and other Islamic holy scriptures. According to these Islamic banking customs, bank depositors do not receive a set rate of interest but instead share in the profits and losses of the bank. Western banks attempting to open branch banks or offshore banking facilities in Islamic nations must adapt their operations to such cultural and religious norms.

(g) Differences in Corporate Governance. A final difference between national business cultures lies in Corporate Governance – the mechanisms by which major stakeholders exert control over the corporation. The firm can be viewed as a set of contracts between various stakeholders in the firm. In this view, a legal framework of contracts defines the corporation. Important contracts include those with customers, suppliers, labour, debt, and equity. Because each of these contracts is executed within the laws of the society in which the firm operates, the society itself help determine the form of these contracts and the rights and responsibilities of the various parties.

A foreign venture that does not respect the language, culture, and sensibilities of the local peoples is destined for trouble. Multinationals and their managers must learn new political systems and social behaviors, including what types of corporate behaviour are punished, what types of behaviour are merely tolerated, and what types of behaviour can lead to fruitful partnerships with the local residents and their government. These cultural differences create additional costs for multinational operations. They also increase business risk. Risk exists whenever actual outcomes can differ from expectations. The multinational corporation has exposure to risk when its assets or liabilities can change in value with unexpected changes in business conditions. As individuals and business take advantage of cross-border business opportunities, they expose themselves to a wide variety of new local and global risks.

2.8.2 Country Risk

An important new risk arising from cross-border operations is country risk. Country risk is the risk that the business environment in a host country will unexpectedly change. Country risk includes the uncertainties of dealing with an unfamiliar culture, unexpected changes in the local social or political climate, unexpected changes in government regulation, financial upheavals, or natural disasters that affect the country's social, economic, political, or financial landscape. Two important dimensions of country risk for the multinational financial manager are political risk and financial risk.

2.8.3 Political Risk. Political risk is the risk that the business environment in a host country will change unexpectedly due to political events. Political risk is usually determined within a country as political forces exert control over the business environment. Political sources of risk include unexpected changes in the operating environment arising from repatriation restrictions, taxes, local content regulations, restrictions on foreign ownership, business and bankruptcy laws, foreign exchange controls, and expropriation.

2.8.4 Financial Risk. Financial risk refers more generally to the risk of unexpected change in the financial or economic environment of a host country. Financial risk is partly determined by political risk, but also by a myriad of financial and economic factors that are outside the control of local political forces.

2.9 SUMMARY

An understanding of multinational financial management is crucial to success in today's and inevitably in tomorrow's, market place. This is unquestionably true for firms competing directly with foreign firms, such as the US auto industry in competition with Asian and Western European automakers. It is also true for domestic firms whose suppliers, customers, and competitors are increasingly likely to be from foreign countries. In today's business environment, the success of firms in service and manufacturing industries depends on two things- their ability to recognize and exploit imperfections in national markets for both products and factors of production and their ability to work effectively within the political and economic constraints imposed by foreign governments. This lesson develops a framework for evaluating the risks and opportunities presented by the world's diverse goods and financial marketplaces. Although we usually take the perspective of the financial manager of a large multinational corporation, this framework works just as well for individuals, small business, and government entities.

2.10 KEY WORDS

Accounting (Translation) exposure: Changes in a corporation's financial statements as a result of changes in currency values.

Basis: The simple difference between two nominal interest rates.

Basis Point: Equal to 1/100 of one percent.

Corporate Governance: The way in which major stakeholders exert control over the modern corporations.

Country risk: The political and financial risks of conducting business in a particular foreign country.

External market: A market for financial securities that are placed an asset's expected return and one or more systematic risk factors.

Financial Risk: Financial risk refers to unexpected events in a country's financial, economic, or business life.

Interest rate risk: The risk of unexpected changes in an interest rate.

Political risk: The risk that a sovereign host government will unexpectedly change the rules of the game under which business operate. Political risk includes both macro and micro.

Repatriation: The act of remitting cash flows from a foreign affiliate to parent firm.

Tax holiday: A reduced tax rate provided by a government as an inducement to foreign direct investment.

2.11 SELF-ASSESSMENT QUESTIONS

1. Discuss the Finance Functions in a global context.
2. Discuss the role of a finance manager in a global context.
3. What is country risk? Describe several types of country risk one might face when conducting business in another country.
4. What are the different challenges and opportunities that appear when a firm globalizes or becomes multinational?
5. What are the various risks and opportunities that a multinational corporation faces?

2.12 FURTHER READINGS

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Lesson - 3

INTERNATIONAL MONETARY SYSTEM

Objectives:

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

Different monetary systems that have been prevalent over different periods of time;

The role of various institutions involved in sustaining these monetary systems;

Various mechanisms of exchange rate determination;

Recent developments in the International Monetary System;

Structure:

3.1 Introduction:

International Financial Management is concerned with the three basic decisions namely the acquisition of funds, their investment and the dividend decision in an international context. It analyses international financing and investment opportunities and chooses the course of action, which maximizes shareholders wealth. International financial

management is however much more complicated than domestic financial management. Besides cultural, social, political and language differences, it has to cope with foreign exchange risk.

3.2 International Monetary System :

International Monetary System refers to the overall financial environment in which multinational corporations operate. The international monetary system can be defined as the "institutional framework within which international payments are made, movements of capital are accommodated, and exchange rates among currencies are determined." It is a complex whole of agreements, rules, institutions, mechanisms, and policies regarding exchange rates, international payments, and the flow of capital. The international monetary system has evolved over time and will continue to do so in the future as the fundamental business and political conditions underlying the world economy continues to shift. The information about the international monetary system is necessary for a manager handling international business and finance, because the nature of the system affects the sources of financing available to business and to the countries in which the business operates.

3.3 Evolution of the International Monetary System :

The international monetary system went through several distinct stages of evolution. Various variations and combinations of the exchange rate mechanisms have been followed in the past. The mechanisms during several stages are briefly stated below.

(a) Bimetallism (Before 1875) : Prior to the 1870s, many countries had 'bimetallism, that is, a double standard in that free coinage was maintained for both gold and silver. Gold and silver were used as international means of payment and that the exchange rates among currencies were determined by either their gold or silver contents. Due to various wars and political crisis, some major countries such as the US, Russia and Austria-Hungary had irredeemable currencies at one time or another during the period 1848-79. Thus the international monetary system was less than fully systematic up until the 1870s. In the US, bimetallism was adopted by the Coinage Act 1792 and remained a legal standard until 1873. France, on the other hand, introduced bimetallism from the French Revolution to 1878. Some other countries such as China, India, Germany and Holland were on the silver standard.

(b) Gold Standard (1875 - 1914) : Gold as a storage of wealth and means of exchange was shared widely by diverse civilizations. The first full-fledged 'gold standard', was not established until 1821 in Great Britain, when notes from the Bank of England were made fully redeemable for gold. France was effectively on the gold standard beginning in the 1850s and formally adopted the standard in 1878. The United States adopted the gold standard in 1879, Russia and Japan in 1897. The classical gold standard as an international monetary system lasted for about 40 years. Under the gold standard, the exchange rate between any two currencies will be determined by their gold content. There were no significant changes in exchange rates among the currencies of such major countries as Great Britain, France, Germany, and the United States during the entire period. Under the gold standard, international imbalances of payment will also be corrected automatically.

(c) Interwar period (1915 - 1944) : World war - I ended the gold standard in August 1914, as major countries such as Great Britain, France, Germany, and Russia suspended redemption of banknotes in gold and imposed embargoes on gold exports. All major countries began to recover from the war and stabilize their economies; they attempted to restore the gold standard. The United States, which replaced Great Britain as the dominant financial power, spearheaded efforts to restore the gold standard. Most major countries gave priority to the stabilization of domestic economies and systematically followed a policy of 'sterilization of gold' by matching inflows and outflows of gold respectively with reductions and increases in domestic money and credit. The interwar period was characterized by economic nationalism and no coherent international monetary system prevailed during this period, with profoundly detrimental effects on international trade and investment.

(d) Bretton Woods System (1945 - 1972) : In July 1944, representatives of 44 nations gathered at Bretton Woods, New Hampshire, to discuss and design the postwar international monetary system. After lengthy discussions and bargains, representatives succeeded in drafting and signing the Articles of Agreement of the International Monetary Fund (IMF), which constitutes the core of the 'Bretton Woods System'. Under the Bretton Woods system, each country established a 'par value' in relation to the U.S. dollar, which was pegged to gold at $ 35 per ounce. In this system, the U.S. dollar was the only currency that was fully convertible to gold; other currencies were not directly convertible to gold.

(e) Flexible Exchange Rate Regime (1973 - present) : The flexible exchange rate that followed the demise of the Bretton Woods system was ratified after the fact in January 1976 when the IMF members met in Jamaica and agreed to a new set of rules for the international monetary system. The IMF continued to provide assistance to countries facing balance-of-payments and exchange rate difficulties. Exchange rates have become substantially more volatile since March 1973 than they were under the Bretton Woods system.

In September 1985, the so-called G-5 countries met at New York and reached what became known as the 'Plaza Accord'. They agreed that it would be desirable for the dollar to depreciate against most major currencies to solve the U.S. trade deficit problem and expressed their willingness to intervene in the exchange market to realize the objective. The 'Louvre Accord' marked the inception of the 'managed float system' under which the G-7 countries would jointly intervene in the exchange market to correct over or under-valuation of currencies.

(f) Current Exchange Rate Arrangements : As of April 1999, the largest number of countries (48), including Australia, Canada, Japan, U.K. and U.S. allow their currencies to float independently against other currencies; the exchange rates of these countries are essentially determined by market forces. Twenty-five countries adopt some forms of "managed floating" system that combines market forces and government intervention in setting the exchange rates. In contrast, 37 countries do not have their own national currencies. The remaining countries adopt a mixture of fixed and floating exchange rate regimes. The European Union has pursued Europe-wide monetary integration by first establishing the European Monetary System and then the European Monetary Union.

3.4 Institutions in International Monetary System :

As part of the Bretton Woods System two institutions namely IMF and IBRD were established. A few more institutions came up as a part of this system. The various institutions in international monetary system are discussed below :

3.4.1 International Monetary Fund (IMF) :

The IMF was established to ensure proper working of the international monetary system. One of the important functions of IMF was to provide reserve credit to member countries facing temporary balance-of-payments problems. For this purpose, a currency pool was maintained. Each member country was required to contribute to this pool according to its quota, which was fixed on the basis of each country's importance in world trade. These contributions were to be partly in an international reserve currency and partly in the country's domestic currency. A country could draw from IMF in trenches for maintaining its currency's parity. A tranche represents 25% of a country's quota. A country's quota would also determine its access to the pool and its voting powers at IMF.

The management of IMF is vested in its executive board. Out of the 22 directors, six are appointed by governments holding the largest quotas. The rest of the directors are elected by the remaining countries. The managing director is appointed by the executive board for five years. The board of governors, which is the highest governing body of IMF, meets once a year to take major policy decisions.

IMF lends to its member countries under various schemes mentioned below: 'Standby Arrangement' was introduced in 1952, under which, countries can borrow at the first indication of its possible need. 'Compensating Financing Facility' was introduced in 1963 for providing financial assistance to countries facing temporary shortfall in reserves. 'Buffer Stock Financing Facility' introduced in 1969 provides financial assistance to purchase approved primary products. 'Extended Facility' was introduced in 1974 allows countries to borrow medium-term loans to overcome the problems caused by balance-of-payments due to structural imbalance. 'Oil Facility' was introduced in 1974 and was terminated in 1976. 'Trust Fund' was constituted by the IMF from the proceeds of sale of gold held. It was discontinued in 1981. In 1993, other facilities were extended to the member countries for assistance in exchange rate stabilization.

3.4.2 World Bank :

The World Bank or the International Bank for Reconstruction and Development (IBRD), was established to help countries in reconstructing their economies in the post World War - II period and to help the developing countries increase their economic growth rate. Generally the World Bank makes medium and long-term loans for infrastructure projects and to countries having Bop problems. It raises funds through subscriptions from member countries and by issuing bonds, which are generally meant for private subscription.

3.4.3 International Finance Corporation (IFC) :

IFC was incorporated in 1956 to help the development of private enterprise in different countries. It thus supplements the activities of the World Bank. IFC helps the private sector

in a number of ways. It provides technical assistance to private enterprises and also tries to bring private capital and private management together.

3.4.4 International Development Association (IDA) :

IDA endeavors to finance those projects in developing countries, which may not be financially profitable, but indirectly may have a positive effect on the concerned economy. IDA was set up in 1960. The membership of World Bank is a prerequisite for membership of IDA.

3.5 Exchange Rate Mechanisms :

The exchange rate is formally defined as the value of one currency in terms of another. There are different ways in which the exchange rates can be determined. Exchange rates may be fixed, floating, or with limited flexibility. Different systems have different methods of correcting the disequilibria between international payments and receipts, one of the basic functions of these mechanisms. The significant methods of exchange rate determination are briefly described below:

3.5.1 Fixed Exchange Rate System :

Under a fixed exchange rate system, the value of a currency in terms of another is fixed. These rates are determined by governments or the central banks of the respective countries. This exchange pegging their currencies to either some common commodity or to some particular currency. The gold standard system and Bretton Wood System comes under this system.

The fixed rate system consists of the following systems:

a. **Currency Board System :** In this system, a country fixes the rate of its domestic currency in terms of a foreign currency, and its exchange rate in terms of other currencies depends on the exchange rates between the other currencies and the currency to which the domestic currency is pegged. Due to the pegging, the monetary policies and economic variables of the country of the reference currency are reflected in the domestic economy. If the fundamentals of the domestic economy show a wide disparity from that of the reference countries, there is a pressure on the exchange rate to change accordingly. This may result in a run on the currency, thus forcing the authorities to either change, or abandon the peg. To prevent such an event, the monetary policies are kept in line with that of the reference country by the central monetary authority, called the 'currency board'. The biggest advantage of a currency board system is that it offers stable exchange rates, which act as an incentive for international trade and investment. The main drawback is the loss of control over interest rates.

b. **Target Zone Arrangement :** Under the target zone arrangement system, a group of countries sometimes get together, and agree to maintain the exchange rates between their currencies within a certain band around fixed central exchange rates. An example of this system is the European Monetary System.

c. Monetary Union : It is the next step of target zone arrangement. Under this system, a group of countries agree to use a common currency, instead of their individual currencies. This eliminates the variability of exchange rates and the attendant inefficiencies completely.

3.5.2 Floating Exchange Rate System :

Under this system, the exchange rates between currencies are variable. These rates are determined by the demand and supply of the currencies in the international market. Floating exchange rates can be of two types :

a. Free Float : The exchange rate is said to be freely floating when its movements are totally determined by the market. There is no intervention at all either by the government or by the central bank. A lot of volatility is observed in the markets following a free float system.

b. Managed Float : In order to reduce the inefficiencies resulted from the uncertainties associated with a clean float, central banks generally intervene in the currency markets to smoothen the fluctuations. Such a system is referred to as a managed float.

3.5.3 Crawling Peg :

It is a combination of fixed and flexible exchange rate systems hence called as hybrid mechanism. Under this system, while the value of a currency is fixed in terms of a reference currency, this peg itself keeps changing in accordance with the underlying economic fundamentals, thus letting the market forces play a role in the determination of exchange rate. There are several bases which could be used to determine the direction of the change in the exchange rate. The advantage of a crawling peg is that, though it gives a relatively stable exchange rate, the rate is never too much out of line with the underlying fundamentals of the economy.

3.6 International Financial Architecture :

International Financial Architecture (IFA) includes the various institutions, markets, and practices that governments, business, and individuals use when they carry out economic and financial activities. Building a stronger, more stable international financial system will make the world less vulnerable to financial crisis. At the same time it will allow countries to enjoy the benefits of globalization, achieve economic growth and improve living standards.

The weaknesses in the international financial system were exposed due to the financial crisis of the 1990s. The main reasons for the strengthening of the system are : 1) the unanticipated crisis of 1990s; 2) the speed with which the crisis got transmitted to other countries took the financial community by surprise. New technology made capital flows easy and fast, it also made the transmission of panic easy; 3) there was evidence of failure of market mechanisms as was generally understood, necessitating a review of relative roles of the state and the market in financial systems; 4) although the international financial institutions, in particular the IMF, came to the rescue of the effected countries, there were questions regarding the timing, content and adequacy of their assistance package; 5) global

interdependence was no longer a slogan. It became clear that developments in developing countries were important for stability in the entire financial world.

3.7 Recent trends in International Monetary System :

In the recent past in the field of monetary system, there was a rise and fall of the Southeast Asian economies. The members of the ASEAN block, especially Indonesia, Malaysia, and Thailand built up their economies on the strength of their monetary systems. Most of the Southeast Asian countries pegged their currencies to the US dollar. The fixed exchange rates helped these countries in attracting foreign capital. Their domestic interest rates and returns on other financial assets were quite high compared to the investment avenues available in the Western economies. These high returns, coupled with the fixed exchange rates provided the investors a chance to earn high returns without having to bear proportionate risks. As the capital continued to flow in, the increasing trade deficit kept getting financed, putting no pressure on the exchange rates.

The flexible exchange rate system that followed the demise of the Bretton Woods system was ratified after the fact in January 1976 when the IMF members met in Jamaica and agreed to a new set of rules called 'Jamaica Agreement' for the international monetary union. As of April 1999, the largest number of countries (48) including Australia, Canada, Japan, the U.K. ad the U.S. allow their currencies to float independently against other currencies; the exchange rates of these countries are essentially determined by market forces. The European union has pursued Europe-wide monetary integration by first establishing the European Monetary System and then the European Monetary Union. A good or ideal international monetary system should provide: liquidity, adjustment and confidence.

3.8 Major areas of Global Reforms :

In the international monetary system the cooperative global reform efforts have concentrated on the following areas.

(i) Strengthening the Financial Sector -

Over the years, to strengthen the financial sector increased recognition has been given to three prerequisites for the efficient functioning of the financial sector. Effective market discipline requires a good credit culture and well-developed and functioning equity and debt markets with a wide variety of instruments for risk diversification. International consensus has already been reached on what constitutes sound practices in many areas of banking supervision and securities regulation. Banks and other financial institutions head to improve internal practices, including in assessing and managing risk, and the public sector needs to upgrade supervision and regulation of the financial sector to keep pace with the modern global economy.

In India, financial sector reforms were undertaken in the early stages of economic reforms, pursuant to the recommendations of the committee on Financial Sector Reforms (Narasimham Committee), which submitted its report in 1992. Supervision of non-bank financial companies is also conducted by the Reserve Bank of India. A Technical Advisory Committee on Financial Markets has been established as a constructive forum to advice the Reserve Bank of India on an on-going basis.

(ii) Transparency:

The information made available to the markets by the official sector or by corporate, prior to the crisis, did not reflect realities in them urging economies. The practices of disseminating information as well as its reliability, timeliness and quality varies sharply from country to country. Hence, considerable attention has been devoted in the recent debate to developing uniform transparency codes and standards. The IMF developed voluntary standards in certain areas in the financial system. The code of good practices on Transparency in Monetary and Financial Policies has been developed. It is, however important to recognize that while transparency is of paramount importance as it enables and improves the understanding of the stance of policies by market participants, the quality and content of transparency has to be appropriate and in true with country circumstances.

India is one of the earliest members of the SDDs of the IMF. RBI and government disseminate as much information as possible through monthly, quarterly and annual publications. Commercial banks in India are also required to maintain disclosure standards on par with those of international banks. The Reserve Bank of India appointed a Standing Committee on International Standards and codes in consultation with the government in order to identify and monitor developments in global standards and codes being evolved in the context of international developments, consider the applicability of these standards and codes to the Indian financial system and chalk a road map for aligning India's standards and practices to the evolving international standards.

(iii) Private Sector Involvement:

The role of external private sector lenders and banks in forestalling and resolving a debt crisis, and more broadly in external liability management, is assuming importance in the context of a much larger movement of private capital as compared with flow of resources from the official sector. A broad consensus has also emerged among member countries of the IMF on the need to seek private sector involvement in the resolution of crisis, while providing for flexibility in the form of involvement and in the methods used to ensure it.

(iv) Contingent Credit Lines -

The IMF created the Contingent Credit Lines (CCL) as a new instrument for preventing crises; it offers a precautionary line of credit to member countries with strong economic policies and is designed to protect them from future balance of payments problems caused by international financial contagion. The CCL creates further incentives for countries to adopt strong policies, be transparent, adhere to internationally accepted standards, and have a sound financial system, and the private sector to play a constructive role in preventing and resolving crisis.

(v) Management of Capital Flows:

After the Asian crisis, there has been an extensive debate on the issue of capital account liberalization and controls. It is widely agreed that a major source of vulnerability in the Asian crisis was the accumulation of short-term liabilities of banks and corporate and poor quality of risk assessment. There has also been a suggestion to impose an increased capital requirement on inter-bank. Basically, two positions significant to developing countries seem to have emerged from the discussions on cross-border capital movements. First, while reiterating the longer-term efficiency of relatively free capital movements a case has been made for capital control either as a precautionary measure or as a temporary measure

in a crisis. Second, it is felt that emerging markets should not liberalize capital account in a hurry, without prior action for strengthening their financial systems.

India's policy on the capital account has been predominantly influenced by the recommendations of the Rangarajan Committee. The committee's recommendations with regard to discouraging short-term flows stand indicated by the current international consensus on the need for controlling short-term debt. Deposits by Non-resident Indians (NRIs) are also controlled through specification of interest rates or interest rate ceilings for different maturities. As a result of these efforts, the average maturity of India's extended commercial borrowing is about six to seven years. India has managed its capital account to ensure growth with stability, while consistently adding to its foreign currency reserves. Like several other countries, India also experienced, and managed, phases of excessive capital movements.

(v) Exchange Rate:

A recent study by the IMF, for example, shows that by far, the most common exchange rate regime adopted by countries, including fixed pegs, crawling pegs, fixed rates within bands, managed floats with no pre-announced path, and independent floats with foreign exchange intervention moderating the rate of change preventing undue fluctuations. By and large, bearing a few, countries have 'managed' floats or Central banks intervene periodically. The exchange rate policy in India has evolved from the rupee being pegged to a market-related system. The exchange rate is largely determined by the market i.e., demand and supply conditions. Despite several unexpected external and domestic developments, India's external situation continues to follow the same approach of watchfulness, caution and flexibility in regard to free market.

3.9 Universal Financial Institution :

Universalisation is not only a question of membership. Several official international agencies now have universal or near-universal membership including the United Nations and many of its specialized agencies as well as both the IMF and World Bank. Membership in the IMF (184 countries in 2005) is not quite as universal as that of the United Nations (191). IMF is designed to function as a cooperative, or a club of peers. In principle, each member country might be a creditor part of the time and a borrower at other times. Over the past 25 years some 44 countries have switched between being net financial contributors to the IMF and being debtors, and back, at least once.

Universal lending by the IMF is an adjunct to the even more comprehensive use of surveillance. The Fund is the only financial institution that conducts routine consultations with all countries. For emerging market economies, the over arching challenge is to develop an economic and financial strength comparable to that of the more advanced countries. For the advanced economies, there is a strong expectation but no guarantee - which they will never have to borrow from the IMF. Nonetheless, the IMF's charter gives every member country the right to borrow under specified conditions to meet a balance of payment need.

3.10 Summary :

This lesson provides an overview of the international monetary system, which defines an environment in which multinational corporations operate. The international monetary system went through five stages of evolution: 1. Bimetallism, 2. Classical gold standard, 3. Interwar period, 4. Bretton Woods system and 5. Flexible exchange rate regime. The flexible exchange rate regime that replaced the Bretton-Woods System was ratified by the Jamaica Agreement. In 1979, the EEC countries launched the European Monetary System (EMS) to establish a "zone of monetary stability" in Europe. While the core EMS members, including France and Germany, apparently prefer the fixed exchange rate regime, other major countries, such as the U.S. and Japan are willing to live with flexible exchange rates.

A good international monetary system should be able to provide the world economy with sufficient monetary reserves to support the growth of international trade and investment. It should also provide an effective mechanism that restores the balance-of-payments equilibrium whenever it is disturbed. It should offer a safeguard to prevent crisis of confidence in the system that result in panicked flights from one reserve asset to another.

3.11Key Words :

Exchange Rate : The value of one currency in terms of another.

Monetary Union : A system, under which group of countries agree to use a common currency, instead of their individual currencies.

Exchange Rate Mechanism : The procedure by which EMS member countries collectively manage their exchange rates.

Par Value : A value in relation to the U.S. dollar, which was pegged to gold at $ 35 per ounce established by each country under the Bretton Woods system.

The Gold Standard : The exchange rate between two currencies was determined on the basis of the rates at which the respective currencies could be converted into gold, i.e., the price of gold in the two countries.

3.12 Self Assessment Questions:

1. Discuss the criteria for a "good" international monetary system.
2. What were the main objectives of the Bretton Woods System?
3. Explain in brief the evolution of the International Monetary System.
4. Bring out the role played by various institutions in International Monetary System.
5. What are the recent developments in International Monetary System ?

3.13 Further Readings:

Cheol S. Eun, International Financial Management.

Solomon, Robert, The International Monetary System.

P.G. Apte, International Financial Management.

Lesson – 4

INTERNATIONAL FINANCIAL FLOWS: THE BALANCE OF PAYMENTS FRAMEWORK

4.0 Objectives:

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

- sources and causes of international financial flows;
- various accounts of balance of payments, their disequilibrium;
- importance and limitations of BOP and its Accounting;
- BOP trend in India and other major countries.

Structure :

4.1 Introduction :

Although most countries pursue the objective of self-reliance, among other high level economic goals, there is no country in the world which is an isolated island. Because an individual country is not able to produce or consume everything taking into consideration the comparative advantage. Apart from the trade in goods and services, there are movements of financial and physical assets among countries, caused by variations in returns on investments, interest rates, payment difficulties and the availability of credit, inconsistent exchange rates etc. All international transactions in goods, services and assets are financed through foreign exchange.

4.2 Sources and Causes of International Financial Flows :

In international trade, an importing country has to pay the exporting country in the latter's currency, which can be obtained through hard currencies only international money, which is acceptable as a means of payment throughout the world consists of hard currencies, for example U.S. dollar, U.K. pound and German Marc, which are convertible into any currency in the world.

The various sources and causes of international financial flows are briefly stated below.

(i) Trade Flows :

Trade flows take place among countries due to comparative advantage, the imbalances between demand and supply for these products, the trade negotiations among nations and technology. Countries with capital abundance and labour scarcity import labour intensive products. Thus most countries buy and sell tangible goods abroad. Though India has achieved self-sufficiency in food grains, yet imports these products during the years of drought / flood when their supplies fall short of demand. India imports sophisticated equipments and electronic gadgets from Japan and Germany. Thus trade flows leads to financial flows.

(ii) Flow of Services:

Services, which flow from country to country include transportation of people and goods, travel abroad, foreign banking services, investing in stocks and debentures abroad, of the various services exchanged globally, travel and transportation, and income from foreign investment are the most important ones. With the growth of multinational and the policy of liberalization, the flow of services across the nations is bound to increase enormously overtime.

(iii) Unilateral Transfer :

These are voluntary payments by the residents of a country to the residents of other countries, which include remittances, gifts, donations and grants. Large number of Indians have settled abroad and they do remit funds to relatives in India. The official (government) unilateral transfers depend directly on the relative economic status of the country in relation to the remaining countries of the world.

(iv) Foreign Direct Investment :

It takes place when the purchase of capital goods in one country by residents of other countries and substantial ownership and management by the investor is involved. Investments go where returns are high and risks are low. In general, developing countries have a net inflow of direct investment and developed countries a net outflow on this account.

(v) Portfolio Investment Abroad :

Portfolio investment abroad consists of claim among nations in the form of stocks, debentures and long term loans, provided no substantial ownership is involved. The difference between the direct and portfolio investment is in terms of extent of ownership. Portfolio investment abroad depends on the relative rates of return on investment, interest rates, and risk among nations.

(vi) Short-term Capital Flows :

There is a flow of capital among nations for a short period, usually less than one year. The various short-term flows can be divided into three categories, viz., trade capital, arbitrage and speculative. The difference between long and short-term capital flows is on the basis of instruments rather than the intentions of the investor.

4.3 Consequences and Remedial measures of International Financial Flows:

International financial flows usually give rise to deficits or surpluses in - a) trade account, (b) current account and (c) capital account. The deficits or surpluses again lead to problems such as -

a) foreign exchange shortage

b) international debt and its servicing

c) exchange rate instability

d) tariffs and cuts even in essential imports, which hamper production

e) financial and fiscal incentives to promote exports, which aggravate the financial crunch facing the nation.

f) political interventions in domestic affairs and debt crisis, which threatens the nation’s sovereignty.

g) devaluation / up valuation of national currency, which leads to speculations in foreign exchange

Every country tries to attain a near balance in its various components of BOP. Incidentally note that deficit (surplus) in any account of BOP of any country means surplus (deficit) in that account of "the rest of the world. Further, a deficit (surplus) is not necessarily bad (good). For example, assume countries A and B constitute the world. Country A is a rich country and it has extended loans to poor country B. If country B has to repay the

loans, it must earn foreign exchange through ensuring trade surplus. Thus, the rich country would experience a trade deficit while the poor country a trade surplus. Finally, this is nothing good or bad for either country.

The imbalances in international flows are corrected through automatic stabilizes as well deliberate actions by authorities. Automatic stabilizers work like this. When a country has deficits in, say, trade account there is a net flow of tangible goods in that country. This raises the supply of these goods, demand remaining the same, price goes down. A decline in domestic price with no change in world price discourages imports and encourages exports, which tend to correct the trade deficit. Quit the opposite happens in the presence of surplus in trade balance. The income mechanism also works along with the price mechanism. Deficits in trade balance are caused by excess of imports over exports, which reduce national income. Deficits in trade account are financed basically through surplus in capital account, which is caused by the net inflow of assets in the economy.

The deliberate actions which the monetary authorities of the country could take to correct its international flow imbalances include changes in the quantity of money, interest rates, exchange rates and controls on foreign exchange. Deficits could be handled through increase in money supply as well as decrease in interest rate, both of which lead to increase in domestic productions and thus cut in the international deficit. The deliberate trade policies to check international imbalances are equally effective. These include promotion of exports through financial and fiscal incentives and restrictions on imports through quotas, customs and total prohibitions.

The other deliberate policies which could serve the purpose of checking international imbalances include incentives / disincentives for multi-nationals, inward remittances, and import substitution, development of tourism, and negotiations for counter trade. All the above kinds of deliberate policies in various degrees have been experienced in India and yet we have chronic balance of trade / payments problem. The problem of international imbalances is faced by many countries in the world and they recur year after year.

4.4 Balance of Payments :

All international financial flows of a country are recorded in that country's balance of payments (BOP). It is not always clear, however, exactly what is meant by the term when it is mentioned in various contexts. This ambiguity is often attributable to misunderstandings and misuse of the term. The balance of payments can be formally defined as "the statistical record of a country's international transactions over a certain period of time presented in the form of double-entry book keeping". Examples of international transactions include import and export of goods and services and cross-border investments in businesses, bank accounts, bonds, stocks, and real estate.

The BOP records the flows of transactions in a given period and not the level of these transactions at a point of time. BOP is like an income expenditure account of an individual household or a sources and uses of funds accounts of a business organization. The term 'residents' in BoP refers to all individuals, firms and government agencies legally residing in a country during the period for which BOP is cast. For example, Indian students residing in U.S.A. for long-term studies are U.S. residents, and U.S. tourists in India for a few days are also U.S. residents. BOP, like the statement on sources and uses of funds, is

constructed on the double-entry bookkeeping basis. Thus, an International economic transactions gives rise to two entries in BOP called a debit entry and a corresponding credit entry in the equal amount, and vice-versa.

4.5 Balance of Payments Accounts :

Since the balance of payments records all types of international transactions of a country over a certain period of time, it contains a wide variety of accounts. However, a country's international transactions can be grouped into the following three main types :

(i) Current account
(ii) Capital account
(iii) Official reserve account.

The Current Account includes the export and import of goods and services. It has four components, viz., merchandise or trade account, services account, factor income and unilateral transfers. 'Merchandise trade' represents exports and imports of tangible goods, such as oil, wheat, clothes, automobiles, computers and so on. 'Services' include payments and receipts for legal, consulting, and engineering services, royalties for patents and intellectual properties, insurance premiums and tourist expenditures which are sometimes called invisible trade. 'Factor Income' consists largely of payments and receipts of interest, dividends, and other income on foreign investments that were previously made. 'Unilateral transfers' involve "unrequited" payments such as foreign aid, official and private grants and gifts.

The current account balance, especially the trade balance, tends to be sensitive to exchange rate changes. When a country's currency depreciates against the currencies of major trading partners, the country's exports tend to rise and import fall, improving the trade balance. The Capital Account balance measures the difference sales of assets to foreigners and purchases of foreign assets. The capital account can be divided into three categories: direct investment, portfolio investment, and other investment.

'Direct investment' occurs when the investor acquires a measure of control of the foreign business. When Honda, a Japanese automobile manufacturer, built an assembly factory in Ohio, it was engaged in Foreign Direct Investment. 'Portfolio investment', mostly represents sales and purchases of foreign financial assets such as stocks and bonds that do not involve a transfer of control. International portfolio investments have boomed in recent years, partly due to the general relaxation of capital controls and regulations in many countries, and partly due to investors' desire to diversify risk globally. 'Other invest', includes transactions in currency, bank deposits, trade credits, and so forth. These investments are quite sensitive to both changes in relative interest rates between countries and the anticipated change in the exchange rate.

The Official Reserve Account includes transactions undertaken by the authorities to finance the overall balance and intervene in foreign exchange markets. The official reserves account has three parts: Changes in gold holdings, foreign exchange and SDR (Special Drawing Rights) holdings, and reserve position with the International Monetary Fund (IMF). A country's official reserve position is indicative of its ability to intervene in the world market. Until the advent of the Bretton Woods System in 1945, gold was the predominant international reserve asset. The remaining item in BOP is Residual

Account or Statistical Discrepancy. This is a balancing entry and its rationale lies: as all international transactions are unfortunately not recorded, as there exists smuggling of goods and services; as various transactions are not always correctly measured both in terms of the amounts and timings of their currencies; and the term 'residency' is vaguely defined.

4.6 "Deficit" and "Surplus" in the Balance of Payments :

On the whole, the balance of payments always balances. Although the sum total of all the four accounts or components of BOP are always zeros, each of the various accounts need not balance. The terms "deficit" or "surplus" cannot refer to the entire BOP but must indicate imbalance on a subset of accounts in the BOP. The imbalance must be interpreted in some sense as an economic dis-equilibrium. In the language of an accountant we divide the entire BOP into a set of accounts "above the line" and another set "below the line". If the net balance is positive above the line, we say that there is a "balance of payments surplus", if it is negative, we say there is a "balance of payments deficit".

The critical question is how to make this division so that BOP statistics, in particular the deficit and surplus figures, will be economically meaningful. Suggestions made by economists and incorporated into the IMF guidelines emphasize the purpose or motive behind a transaction as the criterion to decide whether the transaction should go above or below the line. In practice, depending upon the context and purpose for which it is used, several concepts of "balance" have evolved. These are Trade Balance, Balance of Goods and Services, Current Account Balance, Balance of Current Account and Long-term Capital.

In addition to the accounting conventions, two further considerations are important. One is the procedure adopted for valuation of goods and services and the other is timing of recording a transaction. With regard to BOP, in addition to the accounting conventions, two further considerations are important. One is the procedure adopted for valuation of goods and services and the other is the timing of recording a transaction.

(a) Valuation:

Unless a uniform system of pricing is adopted for all transactions, a number of problems can arise. The credit and debit sides of a transaction, if not valued on the same basis, will not equal each other. Cross- - country comparisons of balance of payments data would be meaningful only when a common system of pricing is used by all countries. The IMF recommends the use of "market prices" this being defined as the price paid by a "willing buyer" to a "willing seller", where the seller and the buyer are "independent parties" and the transaction is solely governed by commercial considerations.

Another aspect of valuation is the choice between frees on board (f.o.b.) and cost insurance freight (c.i.f.) valuations. IMF recommends the former as the latter includes value of transportation and insurance in addition to the value of the goods. In India's BOP statistics, while exports are valued on f.o.b. basis, imports are at c.i.f. valuation. Still another difficulty concerns translation of foreign currency values into domestic currency. Theoretically, it should be done at the exchange rate prevailing at the time of the transaction. In practice, in most cases, for transactions during a particular month, the average exchange rate for the month is used.

(b) Timing:

A uniform system of timing of recording is also desirable. The two sides of transaction should be recorded in the same time period. Various conventions have been evolved for this purpose, for instance, exports are recorded, when cleared by customs, imports when payment is made, and so forth.

4.7 Importance of Balance of Payments Statistics :

BOP statistics are regularly compiled, published and are continuously monitored by companies, banks, and government agencies. Often we find a news headline like "announcement of provisional US balance of payment figures sends the dollar tumbling down". Obviously, the BOP statement contains useful information for financial decision matters. An attempt at forecasting exchange rates can be made if the factors affecting the demand and supply of a currency are known. A careful study of the components of the BOP account and the factors effecting them, and of the underlying economic factors the world over can prove quite helpful for predicting at least the direction of the movement in exchange rates, if not the magnitude.

BOP accounts are intimately connected with the overall saving-investment balance in a country's national accounts. Continuing deficits or surpluses may lead to fiscal and monetary actions designed to correct the imbalance, which in turn will effect exchange rates and interest rates in the country.

4.8 Limitations of Balance of Payments :

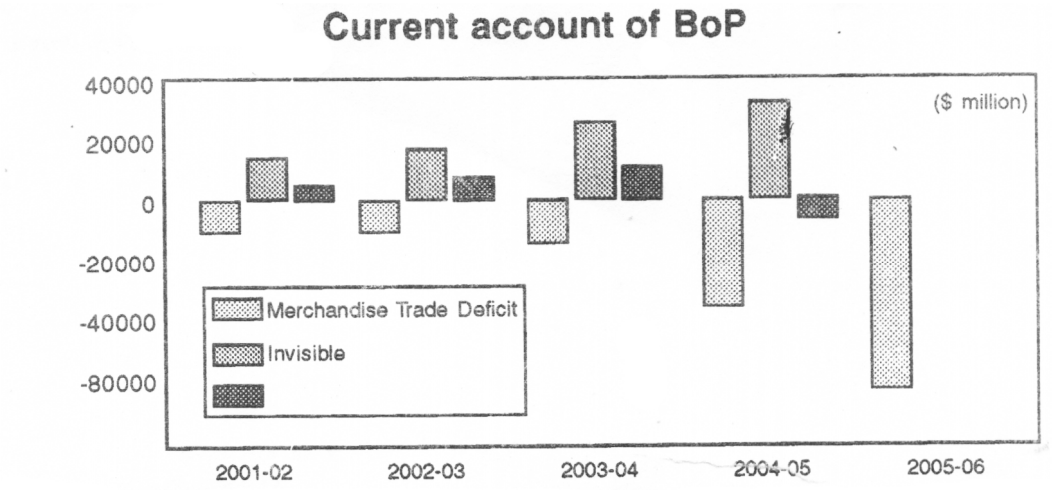
Though BOP statistics of very helpful in predicting movements in the exchange in the exchange rates, they are more useful for estimating general needs rather than the specific levels at which the exchange rates would stabilize. Besides care has to be taken while interpreting BOP data. All the different balances should be considered, along with the actual and expected trends in these balances and the expected developments in the international scene.

The BOP data for one country can give an idea as to whether that country's currency is likely to increase or decline in value. It would not help in predicting the country's movement with respect to a particular currency. That movement can be estimated only if the BOP data for both the countries are studied together.

4.9 Trends in India's BOP :

Since the launching of the five-year plans in India in 1951, emphasis has been placed on the attainment of self-reliance. In spite of enormous gain from international transactions, India has remained a relatively, closed economy till 1991. In terms of the trend over last 50 years, India's share in all these respects is on decline. Our trade deficits had revealed an increasing trend and our foreign exchange reserves had fallen to a low, in spite of our resort to borrowings from IMF and unloading of a part of our gold holdings. India has always experienced trade as well as current account deficits and current account has always served the function of financing current account deficits.

The first sign of a possible transition is the emergence of a deficit on the current account of India's balance of payments in recent times.



The above chart shows, after three consecutive years of a current account surplus, which exceeded $10.5 billion in 2003-04, the country experienced a return to a current account deficit amounting to $6.3 billion in 2004-05. The increase in the current account deficit has principally been on account of a widening of India's trade deficit, which increased from $15.4 billion in 2003-04 to $38.1 billion in 2004-05.

Since India has also been a net recipient of substantial capital inflows on account of debt and foreign direct and portfolio investment, this led to a huge accumulation of foreign exchange reserves that implied a comfortable balance of payments situation. Overall import liberalization, combined with a concentration of increases in sections of the population with a significant pent-up demand for imported or import-intensive goods, has resulted in an excess of demand for foreign exchange relative to current account earnings.

The BOP trends in India during the period 1990-91 and 2004-05 is presented in Table 4.9.1.

4.10 BOP Trends in Major countries :

It is useful to closely examine balance-of-payments trends in some of the major countries: China, Japan, Germany, United Kingdom and United States. The U.S. has experienced continuous deficits on the current account since 1982 and continuous surpluses on the capital account. Japan has had an unbroken string of current account surpluses since 1982 despite the fact that the value of Yen rose steadily until the mid 1990s.

The persistent current account disequilibrium has been a major source of friction between Japan and its key trading partners, especially the United States.

While a perennial balance-of-payments deficits or surpluses can be a problem, each country need not achieve balance-of-payments equilibrium every year. Suppose a country is currently experiencing a trade deficit because of the import demand for capital goods that are necessary for economic development projects. In this case, the trade deficit can be self-correcting in the long run because once the projects are completed, the country may be able to export more or import less by substituting domestic products for foreign imports. In contrast, if the trade deficit is the result of importing consumption goods, the situation will not correct by itself. Thus, what matters is the nature and causes of the disequilibrium.

4.11 International Economic Linkages :

The analytical framework that links the international flow of goods, services, and capital to domestic economic behaviour consists of a set of basic macroeconomic accounting identities. These basic identities linking national economic activity with balance-of-payments account shows that a nation produces more than it spends will save more than it invests, exports more than it imports, and wind-up with a capital outflow. A nation that spends more than it produces will invest more than it saves, import more than it exports, and wind-up with a capital inflow.

In recent years, capital inflows to some developing countries have increased sharply. This increase in capital inflows has provided much needed financing to increase the use of existing capacity and to increase investment level. Though it appears paradoxical but too much capital inflows to developing countries is a matter of concern because of the macroeconomic and other related effects that capital inflows could have on the recipient countries. Indeed, capital inflows could potentially be a problem if they are of a short-term mature and highly volatile.

In order to deal with the potential problems caused by capital inflows, countries can use indirect methods, direct methods or both.

(i) Direct Methods :

If capital inflows are considered to create macroeconomic problems and are motivated by imperfections in the domestic financial markets, countries may try to eliminate the distortion causing the capital inflow. A type of distortion that encourages short-term capital inflows is, for example, keeping a high domestic interest rate. While at the same offering free currency risk protection through a swap facility at the central bank. Offering free deposit insurance at domestic commercial banks, along with a high domestic interest and a fixed nominal exchange rate, may also cause an increase in capital inflows.

(ii) Indirect Methods :

Indirect methods comprise the following:

a) Intervention: It is the purchase of foreign currency by the Central Bank in order to support the nominal exchange rate. It can be of two types - sterilized and non-sterilized.

b) Fiscal adjustment**:** A restrictive fiscal policy is intended to have a macro effect and a composition effect. The first effect attempts to counteract for the increase in aggregate demand created by capital inflows. The second effect helps to keep a higher real exchange rate than otherwise, as government consumption is most likely more intensive in tradable goods than private expenditures.

c) Current account liberalization**:** The liberalization of the current account helps to ease the pressure on the domestic economy by shifting consumption toward tradable goods. Like a restrictive fiscal policy, it has a composition effect and helps to keep a higher real exchange rate than otherwise possible.

d) Capital outflow liberalization**:** The liberalization of capital outflows may induce domestic investors, to take their capital abroad. This may partially compensate for the effects of capital inflows.

4.12 Summary :

International financial flows are caused by variety of factors. These include relative prices, income, interest rate, return on investment, technical development, tariffs and quotas and cyclical fluctuations in demand-supply gaps. Balance of payments is a systematic statistical record of country's international transactions over a certain period of time presented in the form of double-entry bookkeeping.

There are three main components of BOP and a residual component. The former are referred to as current, capital and official reserves accounts. India's BOP reveals persistent and generally growing trade and current account's deficits, and their finance through invisibles, capital and official reserve's accounts. Imbalances in international flows gives rise to economic problems, such as foreign exchange shortage, international debt and servicing of it, exchange rate stability, threat to sovereignty and excessive customs and duties. International imbalances are regulated both by automatic stabilizers and deliberate policy actions.

4.13 Key words:

Balance of Payments is a set of accounts, which records all the economic transactions that take place between the residents of the country and their counterparts in the rest of the world.

Portfolio Investment mostly represents sales and purchases of foreign financial assets such as stocks and bonds that do not involve a transfer of control.

Unilateral Transfer refers to the voluntary payments by the residents of a country to the residents of other countries.

Merchandise trade represents exports and imports of tangible goods, such as oil, wheat, clothes, automobiles, computers and so on.

Factor Income consists largely of payments and receipts of interest, dividends, and other income on foreign investments that were previously made.

4.14 Self Assessment Questions

1. Define balance of payments. Why would it be useful to examine a country's balance-of-payments data?
2. Explain how a country can run an overall balance-of-payments deficit or surplus.
3. Explain the different accounts or components in BOP.
4. What are the economic problems, which various kinds of imbalances in international flows could create?
5. What measures would you recommend to correct the imbalances in International flows?
6. Explain in brief the trends in India's BOP?

4.15 Reference Books

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LESSON – 5

INTERNATIONAL FINANCIAL SYSTEM

5.0 Objectives:

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

- international financial environment and its unique elements;
- distinguish features between domestic and international financial system:
- various types of markets in the international financial system;
- recent trends in the international financial system and its challenges;
- role working of different international financial institutions;

Structure:

5.1 Introduction:

Financial management traditionally focuses upon three key decisions, namely, acquisition of funds, their investment and the payment of dividend. The question that arises here is : Does the focus, objectives and decision criteria of financial management in a domestic and an international firm differ or are they the same ? A commonly agreed answer is that though the focus, objectives and criteria would remain the same, financial management in a multinational firm is much more complex. In the context of a domestic firm, movements in

exchange rates and country risk are substantially ignored. But in the context of a multinational firm, there is no way that we can analyse international financing and investment opportunities and repatriation of dividends without an understanding of the impact of foreign exchange rates and foreign country risk upon the basic model of financial management. It is very aptly said, "if money is the language of business, foreign exchange is the language of international business".

International financial management is concerned with the three basic decisions namely the acquisition of funds, their investment and the dividend decision in an international context. International financial management is however much more complicated than domestic financial management. Besides cultural, social, political and language differences, international financial management has to cope with foreign exchange risk. The balance of payments depicts a nation's total receipts from and the total payments to the rest of the world. It reflects the nature and scope of international transactions of a country for a certain period of time. Thus multinational firms, face higher degree of risk as compared to domestic firms. A matter of great concern for the international firms is to analyze the implications of the changes in interest rates, inflation rates and exchange rates on their decisions and minimize the foreign exchange risk.

5.2 Significance of International Finance:

In today's world, finance cannot be anything but 'international' while political strife continues to take its toll in terms of human lives and enormous economic losses and some barriers to international flow of goods, services and investment are still in place, there is no doubt that in many ways the world economy is becoming a single complex organism with highly interdependent constituents.

The five decades following the Second World War have witnessed an enormous growth in the volume of international trade. This was also the period when significant progress was made towards removing the obstacles to the free flow of goods and services across nations. However, the growth in world trade has not been even, spatially or over different sub-periods, during the four decades following the Second World War. But it has grown at a pace much faster than the world output so that for many countries the share of exports in GDP has increased significantly. Even developing countries like India, which for a long time followed an inward-looking development strategy concentrating on import substitution, have, in recent years, recognized the vital necessity of participating vigorously in international exchange of goods, services and capital.

Starting in 1991, the first half of the 1990’s ushered in further policy initiatives aimed at integrating the Indian economy with the International Economy. In keeping with the commitments made to WTO, all quantitative restrictions on trade were abolished at the end of March 2001. Today along with the growth in trade, cross-border capital flow and, in particular, direct investments have also grown enormously. The world has witnessed the emergence of massive multinational corporations with production facilities spread across the world.

A number of significant innovations have taken place in the international payments and credit mechanisms, which have facilitated the free exchange of goods and services. Any company that wishes to participate in trade on a significant scale must master the intricacies of

the international financial system. As more and more companies venture into the international financial market, their finance managers will be forced to come to grips with the theoretical and analytical issues underlying the working of the market. Fifteen years ago, international finance as a specialized discipline would probably not have been of great relevance to the typical finance manager in India. What has changed since then? If one looks at the macro picture, the role of the external sector in the Indian Economy has not increased significantly.

5.3 Challenges of International Financial System:

In today's world finance cannot be anything but "international". While political strife continues to take its toll in terms of human lives and enormous economic losses and some barriers to international flow of goods, services, and investment are still in place, in many ways the world economy is becoming a single complex organism with highly independent constituents. Supersonic transport, satellite communications and the Internet have made the world a global village.

The international financial system has evolved largely in response to the volatility in interest rates and exchange rates. New types of instruments, new types of markets, and new types of players to tackle uncertainty are the core of the international financial system. The other prominent reason for the present-day international financial system is trade. The rapid growth in trade has contributed greatly to the attractiveness of international investment opportunities. Stability in the international financial system was to a large extent introduced in the late nineteenth century by nearly all governments agreeing to fix the value of their currencies in terms of gold. The gold standard was accepted as the guiding principle of macroeconomic management. Under the gold standard, the world had a single international currency because the values at which currencies exchanged were fixed.

The five decades following the Second World War have witnessed an enormous growth in the volume of international trade. The growth in world trade has not been even, spatially or over different sub-periods, during the four decades following the Second World War. But it has grown at a pace much faster than the world output so that for many countries the share of exports in GDP has increased significantly. Even developing countries like India, which for a long time followed an inward-looking development strategy concentrating on import substitution, have, in recent years, recognized the necessity of participating in international exchange of goods, service and capital. The eighties witnessed a significant shift in policy towards a more open economy, a considerable liberalization of imports, and a concerted effort to boost exports. Ten years ago, international finance as a specialized discipline would probably not have been of great relevance to the typical finance manager in India. What has changed since then? If one looks at the macro picture, the role of the external sector in the Indian economy has not increased significantly. India's share in World trade has been continuously falling.

The domestic industry is in a transitional phase, learning to cope with the environment of greater competition from imports and multinationals as barriers imposed by import quotas and high tariffs are being gradually dismantled, though even now, trade barriers in India are among the highest in the world. Political uncertainties at home and abroad, economic

liberalization at home, greater exposure of international markets, increase in the volatility of critical economic and financial variables such as exchange rates and interest rates, increased competition, threats of hostile takeovers are among the factors that have forced many firms to thoroughly redesign their strategy. Liberalization and deregulation have led to a significant increase in competition within the financial services industry. Liberalization and deregulation of financial markets is an ongoing process. The explosive pace of deregulation and innovation has given rise to serious concerns about the viability and stability of the system. International bodies such as IMF have already begun drawing up blueprints for a new architecture for the global financial system. As national economies are becoming closely knit through cross-border trade and investment, the global financial system must innovate to cater to the ever-changing needs of the real economy.

5.4. Multinational Corporations:

A multinational corporation (MNC) is a business firm incorporated in one country that has production and sales operations in several other countries. The term suggests a firm obtaining raw materials from one national market and financial capital from another, producing goods with labour and capital equipment in a third country, and selling the finished product in yet other national markets. MNCs obtain financing from major money centers around the world in many different currencies to finance their operations.

In addition to international trade, foreign direct investment by MNCs is a major force driving globalization of the world economy. MNCs are reshaping the structure of the world economy. MNCs may gain from their global presence in a variety of ways: (1) spreading R & D expenditures and advertising costs over their global sales; (2) pooling global purchasing power over suppliers; (3) utilizing their technological and managerial know-how globally with minimum additional costs, and so-forth. MNCs can indeed leverage their global presence to boost their profit margins and create shareholder value.

5.5 Unique Elements of International Financial System:

As noted earlier, the international financial system differs from domestic financial system at least in two respects: a) transactions in foreign currencies and b) financial dealings outside of national boundaries. Thus international dealings form the core of the international financial system and international dealings can take place only if there are facilities for conversion of currencies. This is the function of foreign exchange markets.

The major dimensions of international finance largely stem from the fact that sovereign nations have the right and power to issue currencies, formulate their own economic policies, impose taxes and regulate movements of people, goods and capital across their borders. Three major dimensions set international finance apart from domestic finance are: Foreign exchange and political risks, Market imperfections and Expanded opportunity set.

5.6 Goals of International Financial Management:

International financial management is designed to provide today's financial mangers with an understanding of the fundamental concepts and the tools necessary to be effective global managers. The fundamental goal of sound financial management is shareholder wealth maximization. Shareholder wealth maximization means that the firm makes all business decisions and investment with an eye toward making the owners of the firm more wealthy, than they were before.

Shareholder wealth maximization is generally accepted as the ultimate goal of financial management in countries Australia, Canada, the United Kingdom, and especially the United States. Whereas in other countries like France and Germany, shareholders are generally viewed as one of the 'Stakeholders" of the firm, others being employees, customers, suppliers, banks, and so forth. European managers tend to consider the promotion of the firm's stakeholders' overall welfare as the most important corporate goal. Japanese managers tend to regard the prosperity and growth of their shareholders as the main goal and they strive to maximize market share, rather than shareholder wealth.

If the firm seeks to maximize shareholder wealth, it will most likely simultaneously be accomplishing other legitimate goals that are perceived as worthwhile. Shareholders wealth maximization is a long-run goal. Only a well-managed business firm that profitably produces what is demanded in an efficient manner can expect to stay in business in the long run and thereby provide employment opportunities. The shareholders are the owners of the business; it is their capital that is at risk. It is only equitable that they receive a fair return on their investment. Private capital may not have been forthcoming for the business firm if it had intended to accomplish any other objective.

5.7 International Financial Institutions:

The international monetary system can be defined as the institutional framework within which international payments are made, movements of capital are accommodated and exchange rates among currencies are determined. The international monetary system has evolved over time and will continue to do so in the future as the fundamental business and political conditions underlying the world economy continue to shift.

The International Monetary System encompasses the institutions, instruments, lanes, rules, procedures for handling international payments. To regulate the behaviour and to facilitate international payments certain concepts and institutions are required to be established among the participants. These institutions are detailed below.

5.7.1 International Monetary Fund (IMF) :

In July 1944 representatives of 44 nations gathered at Bretton Woods, New Hampshire, to discuss and design the postwar international monetary system, and drafted and signed the Articles of Agreement of the International Monetary Fund (IMF), which constitute the core of the

'Bretton Woods System'. The agreement was subsequently ratified by the majority of countries to launch the IMF in 1945.

(a) Objectives of IMF:

i) to promote exchange rate stability and international cooperation.

ii) to assist in the establishment of a multilateral system of payments in respect of current transactions among members and eliminate foreign exchange restrictions which hamper the growth of world trade.

iii) to give access to the Fund's resources to members for correcting maladjustments in the balance of payments.

(b) Features of the Fund:

Up to 1973 the following were the main features of the IMF.

i) **Par Value System:** The exchange value of a member's currency was fixed in terms of gold. Each country established a par value in relation to the U.S. Dollar, which was pegged to gold at $35 per ounce. Dollar was used as the intervention currency as at that time was as good as gold. In fact members preferred to keep dollars in reserve, in as much as dollars earned interest while gold reserves did not.

ii) **Change in par value:** In order to correct maladjustments in the balance of payments position, members were allowed to borrow from the Fund. They were also allowed to devalue their currency, which required only if the proposed change exceeded 10%.

iii) **Exchange Control:** Only on capital transactions exchange control was permitted. On the current transactions, it could be exercised only in the exceptional circumstances.

(c) Position after 1973:

Bretton Woods system can be described as a dollar-based 'gold-exchange standard'. A country on the gold-exchange standard holds most of its reserves in the form of currency of a country that is really on the gold standard. There were obvious limitations of pegging currency values to gold or to another currency. Hence, members were provided wide choice after 1973 and they can peg their currencies to a) single major currency b) basket of currencies c) allow independent floating; or d) adjust to a set of indicators. Thus, there is complete departure from the par value system. It is, however subject to surveillance by the Fund.

Special Drawing Right: To partially alleviate the pressure on the dollar as the central reserve currency, the IMF created an artificial international reserve called the 'Special Drawing Right' (SDR) in 1970. The SDR, which is a basket currency comprising major individual currencies, was allotted to the members of the IMF, who could then use it for transactions among themselves or with the IMF.

In addition to gold and foreign exchanges, countries could use the SDR to make international payments. Initially, the SDR was designated to be the weighted average of the currencies of those countries whose shares in world exports exceeded more than 1 percent. Effective January 1, 1999, the IMF replaced the currency amounts of German marks and French Francs in the SDR basket with equivalent amounts of the Euro, based on the fixed conversion rates.

The SDR is used not only as a reserve asset but also as a denomination currency for international transactions. Since the SDR is a "portfolio" of currencies, its value tend to be more stable than the value of any individual currency included in the SDR. As SDRs are not backed by any assets, they are also known as paper gold.

5.7.2 World Bank:

The International Bank for Reconstruction and Development (IBRD), also known as the World Bank was set up in 1945 to provide international capital for reconstruction and development of Western Europe which was devastated during the Second World War. The World Bank now plays an important role in the economic development of developing countries. The Bank operates jointly with the IMF on many matters in order to promote structural change and improve efficiency in developing countries but differs in terms of facilities provided.

The World Bank consists of three organizations specified below:

i) **IBRD:** It was set up in 1945 to provide credit to governments for development purposes in the wake of the Second World War. Less than 25% of the loans have gone to industry and development finance companies. It is owned by more than 150 governments, each of which subscribes agreed amount of capital.

ii) **IDA:** The IDA was established in 1960 to serve a similar role to the IBRD but with special facilities for the World's poorest countries. Funds for these purposes are procured mainly from budgetary contributions of developed nations. Most of the loans have been extended to Africa and South Asia.

iii) **IFC:** The International Finance Corporation was set up by the World Bank in 1956 to promote growth in the private sectors of developing countries. Unlike the IBRD and IDA, the IFC tends to operate independently of IMF operations, although it may draw on the IBRD for certain services such as administration.

5.7.3 Other International Financial Institutions:

There are many other international financial institutions currently operating in the world financial markets with a common interest. The prominent institutions are briefly outlined below:

(i) Agency for International Development (AID) :

The AID administers the US foreign aid programmes. Interest rates on AID loans are usually subsidized and maturities tend to be long. The main limitation is that funds should not be used for activities, which go against US economic policies.

(ii) European Investment Bank (EIB) :

The EIB is an EEC institution which provides a source of finance for industrial activities. The clients of the EIB are mainly industrial borrowers.

(iii) Organization for Economic Cooperation and Development (OECD) :

The OECD was established in 1961 as the successor to the Organization for European Economic Cooperation (OECD). Members of the Organization include most of the developed in the world.

(iv) Bank for International Settlements (BIS) :

The BIS began its activities after First World War to improve procedures for transferring money between countries whose currencies were not fully convertible. Nowadays, most currencies are fully convertible and the role of the BIS has changed to that of providing a meeting place for discussion on monetary and foreign exchange matters.

(v) Organization for Petroleum Exporting Countries (OPEC) :

The Organization provides a mechanism for oil-exporting countries like Saudi Arabia, Kuwait, UAE, Qatar and Iraq. OPEC has a great influence in the International market because of oil's worldwide use as a major source of energy.

(vi) Regional Development Banks:

The objectives of regional development banks are to assist the development of capital markets and high priority industrial sectors in developing countries. The important regional development banks include the Asian Development Bank, the African Development Bank etc.

5.8 International Financial Markets:

Due to growth in international business over the last 30 years, various international financial markets have been developed. The prominent constituents of the international financial markets include foreign exchange market, Euro market, Interbank market and International stock markets. Investors invest in foreign markets with the motives: Economic conditions, Exchange rate expectations and International diversification. Thus financial markets are an integral part of any financial system as they are the channels through which funds flow.

(i) Foreign Exchange Market:

The foreign exchange market allows currencies to be exchanged in order to facilitate international trade or financial transactions. One currency can be converted into another only if

the exchange rate is known. It is the function of the foreign exchange markets to establish these exchange rates dependent on the forces of demand and supply. The system of establishing exchange rates has changed over time. The future movements in exchange rates being highly uncertain, holders of foreign exchange face the risk of adverse movement in the exchange rate.

In order to tackle the uncertain movement in exchange rates 'forward' and 'future' markets were developed

(a) **The Forward Market** - The forward market involves contracting today for the future purchase or sale of foreign exchange. Forward markets enable participants to cover or hedge against the risk that exchange rates will vary during a particular period. Forward price may be the same as the spot price, but usually it is higher (at a premium) or lower (at a discount) than the spot price.

(b) **Futures Market:** Compared to forward markets futures markets allow additional facilities. The main advantage is that of tradability and these contracts are openly traded on organized exchanges.

In the international financial system the following markets have also gained importance in the recent past.

(ii) Options Market:

It has grown to provide much needed flexibility to the forward market. An option is a choice available to the investor. The choice, dependent on a pre-specified price, is regarding honoring the contract to buy or sell a currency at some future date. Thus options market is another market to hedge risks arising from variable exchange rates.

(iii) Euro Market:

International financial intermediation emerged in the 1560s and 1970s as MNCs expanded their operation. During this period, the Eurodollar market now referred to as the Euro currency market grew to accommodate the increasing international business. The Eurodollar market was created as corporations in the United States deposited U.S. dollars in European banks.

Thus cross-border dealings between market participants, between institutional players has lead to the development of Euro market. These are markets without any nationality and also called as external markets or offshore markets. Users of Euro market enjoy a great degree of independence and move funds at their discretion. The Euro market can be broadly categorized into a Euro Currency market for Short-term finance and a Eurobond market for long-term financing.

(iv) Interbank Market:

Most of the participants in foreign exchange markets conduct their business through the large commercial banks, which constitute the interbank market. The role of banks is to act

as 'market makers', that is they stand ready to buy and sell foreign currencies. An Interbank is one where dealings in foreign currencies take place between banks themselves.

(v) International Stock Markets:

MNCs and domestic firms commonly obtain long-term funding by issuing stock locally and from foreign investors by issuing stock in international markets. The stock offering may be more easily digested when it is issued in several markets. In the past, an MNC needed a different currency in every country where it conducted business and therefore borrowed currencies from local banks in those countries. Now, it can use the Euro to finance its operations across several European countries and may be able to obtain all the financing it needs with one stock offering in which the stock is denominated in Euro.

5.9 New Financial Instruments:

The uncertainty in the movement of foreign exchange rates resulted in the development of various markets such as the forward market, futures market, and options market, Euro market and the interbank market. Several new financial instruments came into picture in response to the uncertain movement in exchange rates.

(i) Floating Rate Notes (FRS) : First introduced in the Euro markets in 1978, there are debt instruments on which interest rates are set. The risk due to the adverse movement in exchange rates is reduced owing to the changing interest rate payable on the instrument.

(ii) Multiple Currency Bonds: These are denominated in cocktails of currencies. They reduce currency risk below the level that would prevail if the bond were denominated in a single currency. The investor is paid according to the contractual agreement, which may stipulate payment in one or several currencies.

(iii) Zero Coupon Bonds: They carry no coupon payments or interest payments over the life of the instrument. The payment of maturity will be the face value of the instrument; the difference between the purchase price and the repayment value amounting to implicit interest.

(iv) 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.

(v) Swaps: Swaps have gained immense importance in the derivatives market. Swaps allow arbitrage between markets, between instruments, and between borrowers without having to wait for the market themselves to overcome the barriers. There are two kinds of Swaps: interest rate swap and currency swap.

5.10 Recent changes in Global Financial Markets:

The decade 1980s witnessed unprecedented changes in financial markets around the world. The emergence of Euro markets led to internationalization of the banking business. The outstanding feature of the changes during the eighties was 'integration'. The boundaries between national and offshore markets are rapidly becoming blurred and led to the emergence of a global unified financial market. There has been a strong trend towards functional unification across the various types of financial institutions within individual markets. The fever of liberalization and deregulation has swept the various national stock markets. Liberalization and deregulation have led to a significant increase in competition within the financial services industry.

The attainment of the Economic and Monetary Union and the birth of Euro in the closing years of the decade of 1990s have led to the emergence of a very large capital market which has the potential to rival the US financial markets as provider of capital to firms and governments around the world. Liberalization and deregulation of financial markets is an ongoing process. From time to time events and circumstances give rise to calls for predisposition of some controls and barriers to cross-border capital movements.

The explosive pace of deregulation and innovation has given rise to serious concerns about the viability and stability of the system. The financial markets around the world are fast integrating and evolving a whole new range of products and instruments. As national economies are becoming closely knit through cross-border trade and investment, the global financial system must innovate to cater to the ever-changing needs of the real economy.

5.11 Summary:

International financial management is concerned with the three basic decisions: the acquisition of funds, their investment and the dividend decision in an international context. Besides cultural, social, political and language differences, international financial management has to cope with foreign exchange risk.

The international financial system has evolved largely in response to the volatility in interest rates and exchange rates. The rapid growth in trade has contributed greatly to the attractiveness of international investment opportunities. The major dimensions of international finance largely stem from the fact that sovereign nations have the right and power to issue currencies, formulate their won economic policies, regulate movements of people, goods and capital across their borders.

The foreign exchange market which provides the facilities of conversion of currencies is a basic and unique element of the international financial system. Expansion of international trade has been one of the most important benefits arising from the internationalization of the financial system. International financial institutions play a significant facilitating and regulatory role to ensure smooth operations in the international financial system.

5.12 Key Words:

Euro Market is the market in which financial instruments are denominated in currencies different from the currency of the country where the market is located.

Forward Market is a market for foreign currencies that are to be delivered in the future.

Options Market is the market to hedge risks arising from variable exchange rates.

Special drawing right is an international reserve asset created by the fund as a supplement to existing reserve assets.

Floating Rate Notes are debt instruments on which interest rates are set.

Multicurrency Bonds are the bonds which, are dominated in cocktails of currencies.

Zero Coupon Bonds are bonds which carry no coupon payments or interest payments over the life of the instrument.

5.13 Self Assessment Questions

1. Define International Financial System. How does it differ from domestic financial system?
2. Narrate the roles of IBRD, IDA and IFC, the organizations of the World Bank.
3. "The changing international financial system poses new challenges for financial managers in developing countries" - Discuss.
4. Why is it important to study international financial management?
5. How effective has been the regulation of international financial system?

5.14 Further Readings

1. Eun / Recheck, International Financial Management, Tata McGraw Hill, New Delhi.
2. Apte, PG, International Financial Management, Tata McGraw Hill, New Delhi.
3. Jeff Madura, International Financial Management, Thomson - South Western
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V N R

LESSON 6

FOREX MARKETS

6.0 Objectives

After reading this lesson, you should be able to:

- Distinguish between Foreign Bank and Note Market.
- Highlight the role of various types of participants in the Foreign Exchange Market.
- To discuss the procedures Foreign Exchange transactions.

Structure

6.1 INTRODUCTION

The foreign exchange market is a market where foreign currencies are bought and sold. If an Indian importer import goods from the USA and has to make payments in US dollars, it will approach the foreign exchange market to buy US dollars for rupees. An exporter converts the export proceeds obtained in a foreign currency into its own currency.

These two are the simplest examples of transactions in the foreign exchange market. There are many types of transactions that involve the purchase and sale of different currencies.

The foreign exchange market is an over-the-counter market. It does not denote a particular place or floor where dealers assemble and transact foreign currencies. Rather, it consists of trading desks at major agencies dealing in foreign exchange throughout the World that are connected by telephone, telex, etc. This is why transactions are based normally on oral followed by written communication. It may, however, be mentioned that although the market is global, the market features in each country are influenced by the local regulatory framework. In the UK or the USA, the market relies more on the communication network; while in Frankfurt, Paris and some other European countries, physical meeting of participants at bourses is also customary.

Since foreign exchange dealers are spread all over the globe, the time of transaction differs from one place to another depending upon the longitude of the place. If a dealer in India transacts at 10 A.M., it will just be 4.30 A.M. in London. In order to accommodate dealers from different countries, the foreign exchange market has to function round-the-clock.

Again, the currencies transacted in the foreign exchange markets are normally the strong, stable and convertible currencies, which are in great demand because of their strength, stability and convertibility.

6.2 FOREIGN BANK – NOTE MARKET

The earliest experience that many of us dealing with foreign currency is on our first overseas vacation. When not traveling abroad, most of us have very little to do with foreign exchange, which is not used in the course of ordinary commerce, especially in the United States. The foreign exchange with which we deal when on vacation involves bank notes and, quite frequency, foreign-currency-denominated traveler's checks.

Table 6.1 gives the exchange rates on bank notes facing a traveler on February 18, 1994. Let us take a look at how these retail bank notes rates are quoted. The first numerical column of Table 6.1 shows the exchange rates in terms of the number of units of foreign currency that must be paid to the bank to buy a US dollar. The column is headed "Bank buys foreign currency (sells US$)" because when a bank buys foreign currency from a customer, it pays or sells, the customer US dollars. For example, the Australian takes 1.36 Canadian (Can) dollars (Can$ 1.36) or 0.69 British pounds (£0.69) to buy a US dollar from the bank. The second numerical column gives the number of units of each foreign currency that a customer will receive from the bank for each US dollar. For example, the traveler will receive Can$ 1.29 or £0.66 for each US dollar. The rates of exchange posted for travelers in bank and currency exchange windows or international tourists centers are the most expensive (unfavorable) that exist. They are expensive in the sense that the buying and selling prices on individual currencies can differ by a large percentage – frequently more than 5 or 6 percent. The difference between buying and selling prices is called is spread. For example, the 0.10 (1.75–1.65) difference between the buying price and the selling price on the German mark is a spread of approximately 6 percent.

Our experience changing currencies on vacation should not lead us to believe that large-scale international financial transactions encounter similar costs. The bank-note market used by travelers involve large spreads because generally only small amounts are traded, which nevertheless require as much paperwork as bigger commercial trades. Another reason why the spreads are large is that each bank and currency exchange must hold many different currencies to be able to provide customers with what they want, and these notes do not earn interest. This involves an opportunity, or inventory, cost; as well as some risk from short-term changes in exchange rates. Further more, bank robbers in which the United States does not have a monopoly specialize in bank notes; therefore, those who hold large amounts of them are forced to take security precautions, especially when moving bank notes from branch to branch or country to country. A further risk faced in the exchange of bank notes is the acceptance of counterfeit bill, which frequently show up in foreign financial centers. It is worth noting that because banks face a lower risk of theft of travelers' checks and because the companies that issue them- American Express, VISA, Thomas Cook, Master Card, and so on- will quickly credit the banks that accept their checks, many banks give a more favourable buyer exchange rate on cheques than on banks notes. Further, the issuers of traveler's checks enjoy the use of the money paid for the checks before they are cashed, and the banks selling the checks to customers do not face an inventory cost; payment to a cheques issuer by a check-selling bank is made only after a customer has purchased cheques. The benefits to the issuers and sellers of traveler's cheques keep down the spread.

While the exchange of bank notes between ordinary private customers and banks takes place in the retail market, banks trade their surpluses of notes between themselves in the wholesale market. The wholesale market involves firms, which specialize in buying and selling foreign bank notes with commercial banks and currency exchanges. These currency-trading firms are bank-note wholesalers**.**

TABLE 6.1 Exchange Rates on Foreign Bank Notes
(Traveler's Dollar – February 18, 1994)

	Foreign Currency per US Dollar	
	Bank Buys Foreign Currency (Sells US$)	Bank Sells Foreign Currency (Buys US$)
Australia (dollar)	1.44	1.36
Austria (Schilling)	12.50	11.50
Belgium (Franc)	36.50	34.50
Britain (pound)	0.69	0.66
Canada (dollar)	1.36	1.29
China (renminbi)	8.95	8.40
Denmark (kroner)	7.05	6.60
Finland (markkaa)	5.85	5.50
France (Franc)	6.22	5.85

Germany (mark)	1.75	1.65
Greece (drachma)	260.10	245.00
Hong Kong (dollar)	8.15	7.70
India (rupee)	33.10	31.30
Ireland (pound)	0.72	0.68
Israel (shekel)	3.10	2.90
Italy (lira)	1750	1650
Japan (yen)	108.50	102.50
Mexico (peso)	3.21	3.02
Netherlands (guilder)	1.96	1.84
Norway (kroner)	7.62	7.20
South Africa (rand)	3.60	3.32
Spain (peseta)	145.50	135.90
Sweden (krona)	8.17	7.72
Switzerland (franc)	1.48	1.41

Source: Compiled from various bank and currency exchange quotations, February 18, 1994.

As an example of the workings of the wholesale market, during the summer a British bank might receive large numbers of Deutschemarks from Germans traveling in Britain. The same British bank may also be selling large numbers of Italian lire to British tourists leaving for vacations in Italy. The British bank will sell its surplus Deutschemarks to a bank-note wholesaler in London, who might then transport the mark notes back to Germany or to a non-German bank in need of mark notes. The British bank will buy lire from a wholesaler, who may well have transported the lire from Italy or else bought them from banks which had purchased lire from vacationing Italians. The spreads on the wholesale level are less than retail bank note spreads; generally well below 2 percent, because larger amounts are generally traded.

6.3 RELATIONSHIP BETWEEN FOREIGN EXCHANGE MARKET AND MONEY MARKETS

The money markets for short-term deposits and loans for the home and foreign currencies are linked to the exchange market. The link between these markets is the forward margin, which is the difference between the spot and forward rates. Margin is a function of interest rate differentials. For the determination of forward rates through the operation of interest parity principle the prerequisites are the existence of a term inter-bank money market locally and the freedom to banks to borrow or deposit funds abroad.

In India, the domestic money market is distinct from the foreign exchange market. Foreign exchange has been kept in a separate watertight compartment from the rupee. In the Indian forex market, the forward margin instead of being determined by interest differentials is a function of demand and supply. In the absence of a term inter-bank money market (1, 3 and 6 months) in India, the pricing of various short-term instruments in the market like CPs and CD and floating rate bonds has become less than transparent. Further, the absence of inter-bank benchmark rate has rendered it difficult to ascertain the risk premium. Banks did not also have the freedom to borrow or deposit dollars abroad until 1997.

The Sodhani Group (1995) identified the reserve requirement as the major impediment for the development of term inter-bank money market and recommended that it should be lifted. The Group has also suggested that RBI should permit commercial banks to deposit/borrow short-term dollars abroad, up to the limits specified. Unless these prerequisites are met forward exchange rates will not be determined by the operation of the principle of interest rate parity. Consequent to the recommendations of the Sodhani Group, Authorized Dealers (Ads) are allowed to borrow as well as invest in overseas markets, in each case up to a maximum extent of 15 per cent of their unimpaired tier I capital (October 21, 1997) as against the earlier uniform ceiling of US $10 million in each case.

6.4 PARTICIPANTS OF FOREIGN EXCHANGE MARKET

The major participants in the foreign exchange market are importers who may for goods invoiced in foreign currencies, exporters who may have foreign currency sales, portfolio managers who may buy or sell foreign currency assets and receive foreign currency dividends and interest payments, large commercial banks, investors, dealers and brokers, investment banks, arbitrageurs, speculators and central banks.

6.4.1 Commercial banks:

Commercial banks borrow in multiple currencies, serving their own or customer needs. Their traders make the foreign exchange market through continual inter-bank trading. Large money-centre commercial banks serve as market makers. Only the head or regional offices of the major commercial banks are market makers. They simultaneously quote bid and ask prices standing ready to buy and sell foreign currencies at quoted prices. The difference between the two prices is referred to as bid-ask spread. Traders in major money centre banks around the World who deal in two way prices for the buying and selling are referred to as market makers.

The customers of commercial banks buy and sell foreign exchange through their banks. Small banks and local offices of major banks do not deal directly in the inter-bank market. They have a credit line with a large bank or home office. Transactions with local banks, will involve an extra step. The purchases and sales of large commercial banks seldom match leading to large variation in their holdings of foreign currencies exposing them to exchange risk. When they assume it deliberately they act as speculators. However, banks prefer to keep their exposure as low as they can without unduly acting as speculators.

6.4.2 Traders and Investors:

Traders' and investors' transactions result in commitments to make or receive payments in foreign currency and the need of the group for currency conversion constitutes the foundation for foreign exchange market. Since the banks accommodate their conversion needs they participate in a minority of transactions?

6.4.3 Dealers and Brokers:

Dealers are mainly money centre banks, buying currencies low and selling the when high to other dealers. The bid-ask spread is very narrow. Dealers 'operations' are wholesale and majority of transactions are inter-bank in nature although they deal with multinationals and central banks. Thin spreads reflect intense competition among banks, their experience in exchange risk management and low transaction costs. Dealers at retail of cater to needs of customers wishing to buy or sell foreign exchange and the spread is wide (below one per cent). In the foreign exchange market, wholesale transactions dominate and account for 90 per cent of the total value of foreign exchange transactions.

Foreign exchange brokers are specialists in matching net supplier and demand banks buy and sell orders from two different parties. A large portion of foreign exchange transactions is conducted through brokers. While they tend to specialize in certain currencies, they handle all major currencies. The brokers exist because they lower the dealers' costs, reduce their risks and provide anonymity. In New York, most of the foreign exchange transactions between local banks and a high percentage of other foreign exchange transactions are through brokers. In inter-bank trade, brokers charge a commission of 0.01 per cent of the transacted amount and in illiquid currency they charge costly commissions. Payment of commission is split between the trading parties.

Brokers help enlarge the customer base by gathering information. Bank and avoid undesirable positions with the help of brokers. With the assistance of brokers they can take positions of their choice instead of being at the discretion of the customers when they act as market makers. The launch of anonymous broking systems has not affected the volume of business of brokers who account for 35 percent of the deals in the foreign exchange market.

6.4.4 Investment Banks:

Investment banks, which are financial intermediaries, engage in deposit banking outside the United States because of the complimentary nature of investment banking and currency exchange. They find it convenient to deal in currencies involved while marketing Euro-bond issues or arranging in currency swap. As compared to commercial banks, they play a limited role as market makers and in foreign exchange dealing.

6.4.5 Central Banks:

Central bank intervene in the foreign exchange markets to stabilize the exchange rate or move it to a new level. The US dollar is the intervention currency. If their currency exchange value is lower than the desired level, they purchase it with foreign exchange. If it is higher than the desired level, they sell foreign currency. While it is easy to lower value, increasing it depends on the ability to supply foreign exchange, which is dependent on the holdings of reserve assets or ability to borrow such assets.

6.4.6 Arbitrageurs:

They make gains by discovering price discrepancies that allow them to buy cheap and sell dear. Their operations are risk free. They act on their own in undertaking currency arbitrage and interest arbitrage transactions. Currency arbitrage arises from opportunities to buy currencies more cheaply than can be sold. In a free market, the scope for currency arbitrage tends to be very brief and accessible only to dealer banks. Interest arbitrage arises from disequilibria between two exchange rate variables. Dealer banks often conduct it but others have frequent access to it. Interest arbitrage tends to lead to interest rate parity.

6.5 FOREIGN EXCHANGE TRANSACTIONS:

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 contact 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.

6.6 SPOT MARKET:

(i) Features:

In the spot market, currencies are traded for immediate delivery at a rate existing on the day of transaction. For making bookkeeping 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).

(ii) 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.

(iii) 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 Rs.49/US $, the speculator anticipates this rate to become Rs.50/US$ within the coming three months. Under these circumstances, he will buy US $ 1,000 for Rs.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 Rs.50 per dollar and earn a profit of Rs.50,000 – 49,000 = Rs.1,000.

6.7 FORWARD MARKET

The 1- day 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 un-delayed transactions. On the other hand, forward exchange rates involve an arrangement to delay the exchange of currencies until some future date. 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 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 moths forward.

Example 6.2

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
Rs.32.1010-Rs.32.1100	225/275	300/350	375/455
Spread0.0090	0.0050	0.0050	0.0080

The outright rates form this quotation will be as below:

Maturity	Bid/Buy	Sell/Offer/Ask	Spread
Spot	Rs.32.1010 per US$	Rs.32.1100 per US$	0.0090
1-month	Rs.32.1235 per US$	Rs.32.1375 per US$	0.0140
2-month	Rs.32.1310 per US$	Rs.32.1450 per US$	0.0140
3-month	Rs.32.1385 per US$	Rs.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:

Premium or discount (per cent) = [(Fwd rate – Spot rate)/Spot rate] x (12/n) x 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 6.3:

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] x (12/6) x 100 = 3.34 percent.

Differential in the interest rate = 10-6 =4 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)]

Net gain = Canadian $ 1032.4 – Canadian $ 1030 = 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 6.4:

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] x (12/3) x 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 = Can$ 2.6

6.8 SPECULATION IN THE FORWARD MARKET

(a) 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).

(b) 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).

6.9 SUMMARY

The foreign exchange market is a market where foreign currencies are bought and sold. It is an over-the-counter market. It operates round-the-clock. The participants are the real customers, such as the individuals and the firms who have to actually exchange one currency for another. The commercial banks are the most important participants, although the monetary authorities of the country also participate for the purpose of stabilizing the exchange rates. The International agencies are also occasional participants whose aim is either hedging or arbitraging or speculation or restoration of exchange rage stability.

The market may have spot as well as forward transactions. The former involves immediate delivery of currencies, while the latter involves delivery at a future date. Normally, the rates should not vary among different markets, but when they vary, arbitrage takes place conferring profits upon arbitrageurs and ultimately making the rates uniform among different markets. The forward market is normally used for hedging risk but sometimes arbitrageurs who take advantages of differences in interest rates among different markets use it. Speculators too use the forward market for tools for making profits in the foreign exchange market.

6.10 KEY WORDS

Arbitrage: act of buying a security in one market and selling simultaneously in another. One who engages in arbitrage is called the arbitrager.
Forward Market: a market in which one party agrees to buy a commodity at a specific price on a specific future date and the other party agrees to make the sale.
Money Market: the financial markets in which funds are borrowed or loaned for short periods.
Spot Market: the markets in which assets are bought or sold for ‘on the spot delivery’.

6.11 SELF-ASSESSMENT QUESTIONS

1. What do you know about foreign exchange market?
2. What is the use of a foreign exchange market?
3. Who are the major participants in a foreign exchange market?
4. What is the importance of a forward foreign exchange market?
5. How do spot and forward markets differ from each other?
6. What is the impact of increased volatility of a currency on its ‘bid-ask spread?

7. The following quotes are given for spot, 1 month, 3 months, and 6 months SFr and Pound sterling. Convert these into outright rates, with corresponding spreads.

	Spot	1-month	3-months	6-months
$/£	2.0015/30	19/17	26/22	42/35
$/SFr	0.6965/70	7/9	11/16	24/38

8. Direct spot quote of DM and FFr respectively are:

DM = $0.3300/12

FFr = $0.1160/70

Calculate:

a) Bid-ask percent spread on DM and FFr respectively.

b) Direct quote for DM in FFr at Paris.

9. Calculate premium or discount of dollar with respect to FFr if the following rates are known:

Spot rate = FFr 5.000/$

3-months forward rate = FFr 5.250/$

10. Consider the following data:

	Exchange rate	**$Interest rate**	**Interest rate**
Spot	$ 1.5753/£	**---**	**--**
1-month	$ 1.5623/£	3 percent per year	8.5 percent per year
3-months	$ 1.5577/£	3.5 percent per year	7.5 percent per year
6-months	$ 1.5536/£	3.5 percent per year	7 percent per year

Find out the arbitrage possibilities for various periods?

6.12 FURTHER READINGS:

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LESSON – 7

FOREIGN EXCHANGE DETERMINATION

7.0 Objectives:

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

- foreign exchange rate and its quotations;
- the theory of exchange rate determination and its implications
- different approaches of foreign exchange forecasting;

Structure:

7.1 Introduction:

Undoubtedly, we are now living in a world where all the major economic functions - consumption, production, and investment - are highly globalized. It is thus essential for managers to fully understand vital international dimensions of financial management. Financial transactions today crisscross national borders. Such transaction requires trading of foreign currencies at specified exchange rate. Twin cities of this international foreign exchange markets are New York and London. Everyday hundreds of billions of dollars worth of foreign currencies are traded worldwide by individuals businesses, banks and governments. Currency prices have real economic effects on international trade.

Money represents purchasing power of one's country's currency. But to purchase goods and services produced by the residents of another country generally first requires purchasing the other country's currency. More formally one's own currency has been used to buy 'foreign exchange', and in so doing the buyer has converted his purchasing power into the purchasing power of the seller's country. The market for foreign exchange is the largest financial market in the world by virtually any standard. London is the world's largest foreign exchange trading center. New York is the largest currency-trading center in the United States. In this lesson we will investigate the issues related to exchange rates determination and forecasting.

7.2 Foreign Exchange Rate:

An exchange rate is the relative price of one currency in terms of another. It is an extremely important relative price which influences trade and capital flows across national boundaries, relative profitability of various industries, real wages of workers and, in the final analysis, allocation of resources within and across countries. Almost all the countries in the world have a domestic currency, which is used for transactions within its borders - Indian Rupee, Swiss Franc, U.S. Dollar, German Mark, Japanese Yen and so on. When financial transactions cross national boundaries, currency conversion is usually necessary. If an Indian is buying VCR from U.S.A. his rupees at some point shall be exchanged for U.S. Dollars. Similar to any goods or services, each foreign currency has a price at which it is bought and sold. Exchange Rate is price of one currency in terms of other, For example price of a U.S. Dollar in Indian Rupee. A nation's currency undergoes 'depreciation' when foreign exchange becomes more expensive and a currency 'appreciate' when foreign currency becomes less expensive.

7.3 Exchange Rate Quotations:

An exchange rate quotation is the price of a currency stated in terms of another. It is similar to the expression of the price of a commodity. In case of a commodity, there is one way to express its price - as number of units of money needed to buy one unit of the commodity. In case of an exchange rate quotation, both the items involved are a form of money, i.e., both are currencies. So, the price of any one of them can be quoted in terms of one unit of the other. Due to this, there exist a number of ways to express the exchange rate between a pair of currencies. The various kinds of quotes in existence are as follows.

(a) American Vs European Quote:

A quote can be classified as European or American only if one of the currencies is the dollar. An American quote is the number of dollars expressed per unit of any other currency, while a European quote is the number of units of any other currency expressed per dollar. For example, Rs. 48.28/$ is a European quote, while $ 1.6698/ £ is an American quote.

(b) Bid and Ask Rate:

In the quotes given above, there was one single rate at which the currencies were being bought and sold. For example, the rupee-dollar exchange rate was given as Rs. /$ 45.50. In reality, the rate at which a bank is ready to buy a currency will be different from the rate at which it stands ready to sell that currency. These rates are called the bid and ask rates respectively. The difference in these rates represents the cost the bank incurs in these transactions, a small return on the capital employed, and the compensation for the risk it takes.

(c) Interbank Quote Vs Merchant Quote:

Merchant quote is the quote given by a bank to its retail customers. On the other hand, a quote given by one bank to another is called an interbank quote. It has been mentioned that a quote is invariably the banker's quote. The question that arises is that since both the parties involved in the interbank market are banks, whose quote will it be taken as. The convention is that the bank requesting the quote is the customer and the quote will be taken as that of the bank giving the quote, i.e., the one which is acting as the market-maker.

7.4 International Monetary System and Foreign Exchange Markets:

International monetary system can be defined as the overall financial environment in which multinational corporations operate corporations nowadays are operating in an environment in which exchange rate changes may adversely effect their competitive positions in the market place. The complex international monetary arrangements imply that for adroit financial decision making, it is essential for managers to understand, in detail, the arrangements and workings of the international monetary system.

The international monetary system has evolved over time and will continue to do so in the future as the fundamental business and political conditions underlying the world economy continue to shift. The exchange of currencies of importers and exporters countries is possible in the following ways:

(1) importers first acquire currency of exporters country and pay this to exporter for goods / services purchased, or

(2) importer makes payment to exporter in the importer currency and subsequently exporter gets this currency changed to that of his own country.

The change of currency leads to additional cost, inconvenience and risk of international transactions relative to domestic transactions. Over the century international monetary system has evolved from primary reliance on gold to primary reliance on natural money. The changes in these arrangements for international payments have been in

response to economic disturbances, both monetary and structural, and to changes in political relationships among the major countries.

Evolution of international monetary can be studied in following arrangements that prevailed in last century.

7.4.1 Classical Gold Standard: Before World War I:

Under the gold standard, the exchange rate between any two countries will be determined by their gold content, and misalignment of the exchange rate will be automatically corrected by cross-border flows of gold. International imbalances of payment will also be corrected automatically. The nineteenth century, specifically periods between 1890 - 1913 is described as Gold Standard era. A country 'joined the gold standard when its laws made compulsory for its major banks and financial institutions trade or repurchase their monetary liabilities at fixed price, that indicated value of national currency units in terms of a specified amount of gold. No international treaty or agreement at international conference was required for adopting Gold Standard. Various countries pegged their currencies to gold at different times. The result of Gold Standard was pegged exchange rates. One important aspect of gold standard was that the central banks had a large part of their international reserves reflected by difference in their business volume. London at that time was world's principal financial center.

Another feature of Gold Standard was that gold might flow from the countries with payment deficits - to countries with surplus. Flow of gold was supposed to settle payment imbalances. However, little gold actually transferred among countries because of cost of freight, insurance as well as the foregone interest on investment in gold. As one alternative to gold, market developed bills of exchange, which were a type of cheque, issued by importer or buyer. During World War I most countries stopped pegging their currencies to gold price levels increased sharply after World War - I.

7.4.2 Gold Exchange Standard (1925 - 1944) :

Due to shortage of gold in 1920's gold exchange standard developed. Central banks of various countries were reluctant to raise price of gold in terms of their currencies. The need was felt to reduce the use of gold. Gold Exchange Standard was adopted to modify composition of international reserves. Under the Gold Exchange Standard, countries with balance of payments surpluses followed expensive monetary policies because the gold inflow led to an increase in the monetary liability of Central Bank. But contrary to Gold Standard, the countries with balance of payment deficit were not required to follow contractive monetary policies.

7.4.3 Bretton Woods System :

U.S.A. and Britain took initiative in the development of the economic institutions to deal with problem of monetary and trade disturbances after World War - II. In July 1944, representatives of 44 nations gathered at Bretton Woods, New Hampshire, to discuss and design the post war international monetary system and constituted the core of Bretton Woods system. Delegates also created a sister institution, the International Bank for Reconstruction and Development (IBRD), better known as the World Bank, that was chiefly responsible for financing individual development projects. The institution called International

Monetary Fund (IMF) was established to achieve stability in international payment by providing rules for changes in exchange parity.

Under the Bretton Woods system, each country established a 'par value' in relation to the U.S. dollar, which was pegged to gold at $ 35 per ounce. Thus in this system, the U.S. dollar was the only currency that was fully convertible to gold; other currencies were not directly convertible to gold. Countries held U.S. dollars, as well as gold, for use as an international means of payment. Because of these arrangements, the Bretton Woods system can be described as a 'dollar-based gold exchange standard'. To partially alleviate the pressure on the dollar as the central reserve currency, the IMF created an artificial international reserve called the SDR in 1970. In addition to gold and foreign exchanges. Countries could use the SDR to make international payments.

In 1971, President Nixon suspended the convertibility of the dollar into gold and imposed a 10 percent import surcharge. The foundation of the Bretton Woods system cracked under the strain. In an attempt to save the Bretton Woods system, 10 major countries, known as the Group of Ten, met at the Smithosian Institution in Washington D.C. in 1971 and reached the 'Smithosian Agreement'.

7.4.4 Floating Exchange Rate :

Economic position of U.S. was supreme at the time of Bretton Woods system. In mid 1960 U.S. inflation rate began to increase and exceeded some of the industrial countries. In late sixties there was decline in U.S. competitiveness in an array to manufactured products. All these reasons led to intense pressure for changes in parities. Because of inability of national monetary authorities to adopt policies that would have made the new system of pegged exchange rate viable floating rates became inevitable.

7.5 Exchange Rate Determination:

An exchange rate is the relative price of one currency and it is an extremely important relative price. Theoretical investigations of determinants of exchange rates have had a long history in international economics. The corporate finance manager need not necessarily undertake the task of forecasting exchange rates himself or herself. Exchange rate forecasts can be "purchased" from professional forecasting services provided, usually, by commercial banks. However, the manager must have sufficient familiarity with the basics of exchange rate economics to be able to evaluate the forecasts provided by the professionals.

Several key international parity relationships between exchange rates, inflation rates and interest rates have profound implications for international financial management. An understanding of these parity relationships provides insights into (1) how foreign exchange rates are determined, and (2) how to forecast foreign exchange rates.

7.5.1 Law of One Price :

Price of foreign goods in domestic market are determined by exchange rate. The law of one price links three factors namely - domestic price, foreign price and exchange rate. It states that the domestic price of domestic and foreign item shall be equal. If this is not true then people will buy only less expensive item out of foreign or domestic item.

$$DP = ER \times FP$$

Where,

DP = Domestic price of foreign good

FP = Foreign price of foreign good

ER = Exchange Rate, Domestic currency / Foreign currency

The assumptions of Law of One Price are: Movement of goods, No Transportation costs, No transaction costs, and No tariffs. Thus in equilibrium conditions, according to the law of one price, the price of a commodity has to be the same across the world. If it were not true, arbitrageurs would drive the price towards equality by buying in the cheaper market and selling in the dearer one, i.e., by two-way arbitrage.

7.5.2 Purchasing Power Parity (PPP) :

The purchasing power parity was enunciated by a Swedish Economist, Gutsav Cassel in 1918. According to this theory, the price levels in different countries determine the exchange rates of these countries' currencies. In other words it states that percentage change in an exchange rate is determined by the difference in two nations rates of inflation. The PPP is one of the oldest doctrines in international economics. In those years, many countries, including Germany, Hungary, and the Soviet Union, experienced hyperinflation. As the purchasing power of the currencies in these countries sharply declined, the same currencies also depreciated sharply against stable currencies like the U.S. Dollar.

The PPP became popular against this historical backdrop. PPP is a manifestation of the law of one price applied internationally to a standard commodity basket. Consequently limitations of law of one price are applicable to law of purchasing power parity also. There are three versions of PPP, viz., the absolute version, relative version and the expectation versions.

(i) Absolute Purchasing Power Parity :

Underlying the absolute version of PPP is the "law of one price", viz., that commodity arbitrage will equate prices of a goal in all countries when prices are expressed in a single common currency. If the law of one price were to hold good for each and every commodity then it will follow that:

$$PA = S\ (A/B) \times PB$$

Where,

PA and PB are the prices of the same basket of goods and services in countries A and B respectively, the above equation can be written as:

$$S(A/B)= \frac{P_A}{P_B}$$

According to this equation, the exchange rate between two countries' currencies is determined by the respective price levels in the two countries. Obviously, this "law" is not valid in practice and it is difficult to test the theory empirically.

(ii) Relative Purchasing Power Parity:

It says that the proportionate change in exchange rate between two currencies A and B, between two points of time equals the difference in the inflation rates in the two countries over the same time interval. Transportation cost, tariffs and so on may prevent absolute PPP from holding but the discrepancy remains constant over time. Relative PPP relaxes a number of assumptions made by the law of one price and even when these factors are present, in certain conditions the relative PPP may still hold well.

The relative form can be derived from the absolute form in the following manner.

Let S~ (A/B) denote the percentage change in spot rate between currencies of countries A and B over a year, and P~A and P~B denote the percentage in the price levels i.e., the inflation rates in the two countries over the same period of time. If

PA = S(A/B) x PB

Then, at the end of one year,

$$P_A(1+P_A) = S(A/B)\{1+S(A/B)\}\, x P_B(1+P_B)$$

Here, the left hand side of the equation represents the price level in the country, A after one year, the first term on the right-hand side of the equation represents the spot exchange rate between the two countries at the end of one year, and the last term gives the price level in country B after one year. These terms are arrived at by multiplying the figures at the beginning of the year by 1 plus the percentage change in the respective figures. According to this form of PPP, the expected percentage change in the spot rate is equal to the difference in the expected inflation rates in the two countries. This theory assumes that speculators are risk-neutral and markets are perfect.

A multitude of studies has been conducted over a number of years to verify whether the law of one price and the various forms of PPP actually hold good. Though conflicting results have been obtained by different studies, those based on the generally available date largely indicate that PPP does not hold good, i.e., the movements in exchange rates are not explained by movements in price levels, and vice versa. A major reason for this is that there are a number of other factors which also effect the movements in exchange rates, especially in the threat-run, which may dominate the effect of inflation. These factors give rise to the following reasons for PPP not holding good:

7.5.3 Interest Rate Parity (IRP) :

The purchasing power parity gives the equilibrium conditions in the commodity market. Its equivalent in the financial markets is a theory called the Interest Rate Parity (IRP) or the covered interest parity condition. According to this theory, the cost of money, when adjusted

for the cost of covering foreign exchange risk, is equal across different currencies. This is so, because in the absence of any transaction costs, taxes and capital controls, investors and borrowers will tend to transact in those currencies which provide them the most attractive prices. Besides, the arbitrageurs will always be on the lookout for an opportunity to make riskless profits. The resultant effects on the demand and supply would drive the value of currencies towards equalization. Covered IRP does not hold good perfectly because of the reasons - transaction costs, political risks, taxes, liquidity preference, and capital controls.

7.6 Exchange Rate Forecasting:

In practice exchange rate forecasting is quite difficult. Any economic event in any of the major economic centers will have repercussion on almost all inter-currency exchange rates. Market sentiments also play a critical role in exchange rate determination. Money is sometimes traded for speculative purposes. A plethora of factors effect the levels of, and movements in exchange rates, often in a conflicting manner. A number of theories were propounded to explain these effects. Though a consistent prediction of the exact level of future exchange rates is impossible, these theories help in forecasting the possible direction of the movement. Such forecasting is very important for players in the international markets, as the exchange rates have a great impact on their profits.

Understandably, forecasting exchange rates as accurately as possible is a matter of vital importance for currency traders who are actively engaged in speculating, hedging, and arbitrage in the foreign exchange markets. Some corporations generate their own forecasts, while others subscribe to outside services for a fee. While forecasters use a variety for forecasting techniques, they can be classified into following three distinct approaches.

7.6.1 Efficient market approach:

Financial markets are said to be efficient if the current asset prices fully reflect all the available and relevant information. The 'efficient market hypothesis (EMH)' has strong implications for forecasting. Suppose that the foreign exchange markets are efficient. This means that the current exchange rate has already reflected all relevant information, such as money supplies, inflation rates, trade balances, and output growth. The exchange rate will then change only when the market receives new information. Incremental changes in the exchange rate will be independent of the past history of the exchange rate. If the exchange rate indeed follows a random walk the future exchange rate is expected to be same as the current exchange rate, that is,

In a sense, the 'random walk hypothesis' suggests that today's exchange rate is the best predictor of tomorrow's exchange rate. Predicting the exchange rates using the efficient market approach has two advantages. First, since the efficient market approach is based on market-determined prices, it is costless to generate forecasts. Both the current spot and forward exchange rates are public information. As such, everyone has free access to it. Second, given the efficiency of foreign exchange markets, it is difficult to outperform the market-based forecasts unless the forecaster has access to private information that is not yet reflected in the current exchange rate.

7.6.2 Fundamental Approach :

The fundamental approach to exchange rate forecasting uses various models. For example, the monetary approach to exchange rate determination suggests that the exchange rate is determined by three independent variables : (1) relative money supplies, (2) relative velocity of money and (3) relative national outputs. This approach has two main difficulties. First, one has to forecast a set of independent variables to forecast the exchange rates. Forecasting the forward will certainly be subject to errors and may not be necessarily easier than forecasting the latter. Second, the parameter values, that is □ and □'s, that are estimated using historical data may change overtime because of the changes in government policies and / or the underlying structure of the economy. Either difficulty can diminish the accuracy of forecasts.

7.6.3 Technical Approach :

The technical approach first analyzes the past behaviour of exchange rates for purpose of identifying "patterns" and then projects them into the future to generate forecasts. This approach is based on the premise that history repeats itself. The technical approach thus is at odds with the efficient market approach. At the same time, it differs from the fundamental approach in that it does not use the key economic variables such as money supplies or trade balances for the purpose of forecasting. However, technical analysis sometimes consider various transaction data like trading volume, outstanding interests, and bid-ask spreads to aid their analyses.

The specific methods used in exchange rate forecasting are briefly stated below :

(a) Trend Analysis : Standard Time Series analysis methods can be applied to forecast exchange rate in future. A linear relationship simple model can be :

$$ER (T + 1) = A + B^* ER(T)$$

values of A & B can be worked out using past year exchange rates. This method assumes that the overall price levels in both the countries shall remain unchanged, there shall not be any major event at any economic center in the world during this period.

(b) Moving Standard Deviation : This method assumes a period of one year for formation of exchange rate. It includes the steps -

i. calculation of the percentage change in the exchange rate for each for past 12 months;

ii. calculation of average of percentage change in the exchange rate for last 12 months;

iii. using this average and the actual change in the exchange rate for last 12 months work out the Standard Deviation;

iv. workout the next months forecasted exchange rate using trend analysis. Apply the standard deviation to the forecast of the next months exchange rate.

(c) Using purchasing power parity : It would be economically more sound to base the exchange rate forecasting on the overall price levels in two countries. The percentage change in the exchange rates is worked out by using relation :

$$\Delta\%e = \% pd - \%pf$$

where % pd and % pf are the changes in overall levels of domestic and foreign prices i.e., the inflation rates and % is the percentage change in the exchange rate.

7.7 Spot and Forward Exchange Rates :

The 'spot market' involves almost the immediate purchase or sale of foreign exchange. 'Spot rate' quotations can be stated in direct or indirect terms. In conjunction with spot trading, there is also a forward foreign exchange market. The forward market involves contracting today for the future purchase or sale of foreign exchange. The forward price may be the same as the spot price but usually it is higher or lower than the spot price. Forward exchange rates are quoted on most major currencies for a variety of maturities.

Thus, the spot prices for currency are for immediate delivery, within the next two days. Forward prices are prices agreed to today but not paid until specified further delivery date, usually within a year. Forward prices might be used by an importer who has agreed to pay a certain amount of foreign currency for product and wants to guarantee the cost in terms of domestic currency. A swap is an agreement to sell a currency and then repurchase it at a stated price on a specified future date, with the difference between the sale and purchase price called the swap rate.

7.8 Summary :

This lesson presents an introduction to the market for foreign exchange. Broadly defined, the foreign exchange market encompasses the convention of purchasing power from one currency into another, bank deposits of foreign currency, the extension of credit denominated in foreign currency, foreign trade financing and trading in foreign currency options and futures contracts. The FX market is the largest most active financial market in the world. It is open somewhere in the world 24 hours a day, 365 days a year. It also provided a systematic discussion of the key international parity relationships and two related issues, exchange rate determination and prediction. Interest Rate Parity implies that in the short run, the exchange rate depends on (a) the relative interest rates between two countries, and (b) the expected future exchange rate. Purchasing Power Parity states that the exchange rate between two countries' currencies should be equal to the ratio of their price levels. The relative version of PPP states that the rate of change in the exchange rate should be equal to the inflation rate differential between countries.

Different models of exchange rate determination predict different effects of changes in various economic variables on the exchange rates. There are three distinct approaches to exchange rate forecasting; (a) the efficient markets approach (b) the fundamental approach, and (c) the technical approach. Exchange rate forecasting in practice is quite difficult. It effects both domestic economic activity and the foreign trade of a country. The final effect of a change in an economic variable is a combination of the predictions of the various theories, and is also dependent on the situation of the moment.

7.9 Key Words:

Foreign Exchange Market encompasses the conversion of purchasing power from one currency into another.

Spot Market involves almost the immediate purchase or sale of foreign exchange.

Exchange Rate is price of one currency in terms of other.

Purchasing Power Parity states that percentage change in an exchange rate is determined by the difference in two nations rates of inflation.

Forward market involves contracting today for the future purchase or sale of foreign exchange.

Law of One Price states that in equilibrium conditions, the price of a commodity has to be the same across the world.

Technical Analysis is called forecasting future exchange rate with the use of past exchange rate movements.

7.10 Self Assessment Questions

1. Describe the different approaches of Exchange Rate Determination.
2. Explain the Purchasing Power Parity, both in absolute and relative versions.
3. Spot and forward exchange rates are based on interest rate parity theorem. Discuss.
4. Briefly explain the different methods of exchange rate forecasting.
5. Discuss the Interest Rate Parity and its implications for exchange rate determination.

7.11 Reference Books

1. Cheol S. Eun and Bruce G. Resnick - International Financial Management
2. Apte P.G. - International Financial Management
3. Vihang R.E., Devi Sing T.S. Srinivasan - International Financial Management.

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Lesson – 8

MANAGING ACCOUNTING EXPOSURES

8.0 Objectives:

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

- concept of exposure and different types of exposures;
- accounting exposure and its translation methods;
- management of translation exposure;
- information for exposure management;

Structure :

8.1 Introduction :

Foreign exchange markets are volatile, as the exchange rate is always subject to change. All multinational firms in the process of the international financial transaction are exposed to exchange risk. Hence the measurement of foreign exchange risk is vital in international financial management. Foreign exchange exposure results in foreign exchange risk due to the unanticipated variability in exchange rates. Though these two terms are often

used interchangeably, in reality they represent two different yet closely related concepts. The measurement of foreign exchange risk is vital in international financial management. In this context, "exposure" and different types of exposure are important for company is foreign exchange risk management. The firm is 'exposed' to uncertain changes in a number of variables in its environment. These variables are sometimes called 'Risk Factors'. Uncertainties arising out of fluctuations in exchange rates, interest rates and relative prices of key commodities such as oil, copper, and so on, create 'strategic exposure and risk' for a firm.

8.2 Concept and Types of Exposures :

The general concept of exposure refers to the degree to which a company is affected by exchange rate changes. In simple terms, an asset, liability or income, which is said to be exposed, to exchange risk when a currency movement will change, for better or more worse, its parent or home currency value. Exposure is thus a neutral concept signifying that a company has assets, liabilities or income streams dominated in currency other than its own. The "risk" element is that the currency movement will produce adverse results, which will not necessarily be the case.

All foreign currency denominated assets, liabilities and income streams are, therefore, exposed to exchange risk. Corporate exposure management is very complex area. A logical and structured approach are needed to formulate company's foreign exchange risk management programme. The starting point in such a programme must be to decide exactly what the company has which is at risk. If we look into different types of exposures, conventionally there are three types of exposures, viz., Economic Exposure, Transaction Exposure and Translation Exposure.

a) Economic Exposure : It can be defined as the extent to which the value of the firm would be effected by unanticipated changes in exchange rates. Any anticipated changes in exchange rates would have been already discounted and reflected in the firm's value. Changes in exchange rates can have a profound effect on the firm's competitive position in the world market and thus on its cash flows and market value. Thus, it is concerned with the present value of future operating cash flows to be generated by a company's activities and how this present value, expressed in parent currency, changes following exchange rate movement. Some of the situations in which such exposures arise are:

i) An export or import deal in being transacted and prices are yet to be finalized. Fluctuations in the exchange rate will probably influence both and then it will be converted into transactions exposure.

ii) The firm has submitted a tender bid on an equipment supply contract. If the contract is awarded, transactions exposure will arise.

In the above situations, the currency movements will affect future cash flows. Competitive exposure, on the other hand, is the most crucial dimension of currency exposure. Its time horizon is longer than that of transactions exposure. Its focus is on long run survival and value of the firm. For instance, a firm is involved in producing goods for export and / or import substitutes. It may also import a part of its raw materials and

components. A change in exchange rate gives rise to a number of concerns for a company. Some of them are:

i) What will be the effect on sales volume if prices are maintained? If prices are changed?

ii) Material costs of imported inputs will increase following a depreciation of the home currency.

iii) Manpower costs may also increase if cost of living increases and wages have to be raised.

b) Accounting Exposure :

Accounting exposure arises on the consolidation of foreign subsidiaries' accounts into the parent - currency - denominate group financial statements. If exchange rates have changed since the previous exporting period, this 'translation' or restatement, of those assets, liabilities, revenues, expenses, gains and losses that are denominated in foreign currency will result in foreign exchange gain or losses the possible extent of these gains or losses is measured by the translation exposure figures.

Assets and liabilities that are translated at the current exchange rate are considered to be exposed; those translated at the historical exchange rate will maintain their historical HC values and hence are regarded as not exposed. Since only those items translated at current rates are exposed to exchange risk, then the question of which items should be translated at which rate is a vital one in determining a company's accounting exposure. Thus accounting exposure, also called 'Translation exposure' refers to the effect that an unanticipated change in exchange rates will have on the consolidated financial reports of an MNC.

8.3 Managing Accounting Exposures:

The management of accounting exposure including both translation and transaction exposure requires the use of hedging process. Accounting exposures relate to items that presently appear on the balance sheet and income statement on the firm. The accounting exposure arises while reporting and consolidation of the financial statements of foreign operations from the local currencies (LC) involved to the home currency (HC).The Transaction exposure arises because a payable or receivable is denominated in a foreign currency. Translation exposure arises on the consolidation of foreign currency - denominated assets and liabilities in the process of preparing consolidated accounts. Transaction exposure is a comparatively straightforward concept but translation exposure is more complex. We now proceed to discuss these exposures more deliberatively.

i) Transaction Exposure : It can be defined as the sensitivity of "realized" domestic currency values of the firm's contractual cash flows denominated in foreign currencies to unexpected exchange rate changes. Since settlements of these contractual cash flows effect the firm's domestic currency cash flows, transaction exposure is sometimes regarded as a short-term economic exposure. Transaction exposure arises from fixed-price contracting in a world where exchange rates are changing randomly.

. For example, when Microsoft sells a computer software to a bank in England, it will not be paid until a later date. If that sale is priced in pounds, Microsoft has a pound transaction exposure. A company's transaction exposure is measured currency by currency and equals the difference between contractually fixed future cash inflows and outflows in each currency. Some of these unsettled transactions, including foreign-currency-denominated debt and accounts receivable, are already listed on the firm's balance sheet. But other obligations such as contracts for future sales or purchases are not reflected in the balance sheet

ii) Translation Exposure : It refers to the potential that the firm's consolidated financial statements can be effected by changes in exchange rates. Consolidation involves translation of subsidiaries' financial statements from local currencies to the home currency. Resultant translation gains and losses represent the accounting system's attempt to measure economic expose 'ex post'. It does not provide a good measure of 'exaute' economic exposure.

The main difference between transaction and translation exposure is that the former has impact on cash flows while the latter has no direct effect on cash flows. According to Alan Shapiro, translation exposure is simply the difference between exposed assets and liabilities. The controversies among accountants centre on which assets and liabilities are exposed and on when accounting - derived foreign exchange gains and tosses should be recognized (reported on the income statement). A crucial point is that no cash flows are necessarily involved.

There are four basic translation methods for managing the translation exposure. They are: the current / non -current method, the monetary/non-monetary method, the temporal method and the current rate method. Each method has its own assumptions as to the applicability of historical or current rates to various balance sheet items.

Table 10.1 Summarizes the translation rules of each of these four methods.

Nature of Assets	Current / Non Current CR *HR*	Monetary /Non Monetary CR* HR*	Temporal CR* HR*	Current rate CR* HR*
ASSETS: Current Assets Cash / Marketable securities				
Receivables #				
Inventory (at cost)				
Prepaid expenses				

Fixed assets less Accumulate depreciation				
Goodwill				
LIABILITIES: Current Liabilities				
Long term debts				
Deferred Income taxes				
EQUITY***				

*CR= Current rate **HR= Historical rate *** Adjusted for the translation gain/loss

*Any long-term receivables (settlement date beyond one year) will be translated at the historical rate, under the current / non-current method

a) Current/Non current Method

In this method, all the foreign subsidiaries current assets and liabilities are translated into home currency at the current exchange rate. Each non-current asset or liability is translated at its historical exchange rate (that is, at the rate in effect at the time the asset was acquired or the liability incurred. The income statement is translated at the average exchange rate of the period, except for those revenues and expense items associated with non current assets or liabilities.

b)Monetary / Non-Monetary Method:

The Monetary/non-monetary method differentiates between monetary assets and liabilities. Monetary items such as cash bills payable and receivable, and long-term debt are translated at the current rate. Non-monetary items such as inventory, fixed assets and long-term investments are translated at historical rates. Income statement items are translated at the average exchange rate during the period, except for revenue and expense items related to non-monetary assets and liabilities. The latter items, essentially depreciation and cost of goods sold, are translated at the same rate as the corresponding balance sheet items.

c) Temporal Method:

The main difference between the temporal and monetary/non-monetary methods arises in the case of certain items of inventory where stock is stated in the original accounts at market value (where it is below historic cost) the temporal method would translate it at the

current rate while the monetary / non-monetary approach would use the historic exchange rate. Income statement items are translated at an average rate for the reporting period. However, cost of goods sold and depreciation related to balance sheet items carried at past prices are translated at historical rates.

d) Current Rate Method:

According to this method, all balance sheet and income items are translated at the current rate. Accounting exposure in given, simply by net assets or shareholders' funds (sometimes called equity). This method has become increasingly popular worldwide.

Impact of the choice of Translation Method:

Keeping in view the diversity of translation methods in the consolidation of financial statements, the choice of translation method can have a significant effect on home-currency accounting results. In fact, identical firms could share different translation gains or losses merely because they used different methods of translating their foreign subsidiaries accounts.

Example:

An Australian company has set up a subsidiary in India on 1st January 199X. The underlying transactions were booked at the prevailing exchange rate, say Rs.20/$A. Table 10.L exhibits the opening balance sheet and its rupee equivalent are shown in columns (1) and (2).

The Indian subsidiary could not begin operations in the first quarter of 199X. So that at fiscal year and i.e., 31 march 199X, the rupee balance sheet was exactly the same as on 1st January 199X. But during this quarter, rupee depreciated by 25 per cent against the $A so that the closing rate of exchange was Rs.25/$A. This rate was applied in the consolidation of some or all of the subsidiary's items, depending on which translation method was used. The results obtained by applying each of the four methods are shown in columns 3 to 6. If the rupee had appreciated or $A depreciated and the new exchange rate is Rs.12.50/$A, the impact of the use of each translation method on the consolidated of the balance sheet is shown through columns 7 to 10 of Table 10.2. This explains the implications of the use of different methods with results ranging from a loss of $A 1,050,000 to a gain of $A 1,075,000 and revaluation results can vary from a gain of $A 2,400,000 to a loss of $A 1,750,000.

The latter items, such as depreciations expense, are translated at the same rates as the corresponding balance sheet items. Therefore, it is possible to see different revenue and expense items with similar maturities being translated at different rates.

8.4 Accounting Treatment of Exposures

In recording and reporting the effects of transaction and translation exposures, the accountant has to deal with the three important issues:

i). Which exchange rate should be used to translate asset and liability items? Historical, current or some average rate? Historical rate means the exchange rate ruling at the time the asset or liability came into existence.

ii). Where in financial statements should the gains /'losses be shown? Should they be merged with the income statement or should a separate account be kept to be subsequently merged with the firm's net worth?

iii) What are the tax implications of the various choices made regarding (1) and (2) above?

P.G. Apte examined the various alternatives, which are discussed here as under:

a) Asset and liability items are recorded at the rate prevailing at the time they are acquired.

b) Items which are settled during the current accounting period are revalued at the rate prevailing at the time of settlement. This gives rise to exchange gains or losses, which are taken to the income statement.

c) For items not settled within the accounting period, they are taken to the balance sheet either at the historical rate or at the market rate. In the latter case a loss or a gain is made, the treatment of which depends on the nature of the item and whether it is a gain or a loss. Losses are normally shown in income immediately while gains may be shown in current or future income statement according to some set procedure.

d) When items such as receivables and payables in foreign currency are hedged by means of a forward contract, the forward rate applicable in the contract is used to measure and report such items. The difference between the spot rate at the inception of the contract and the forward rate is recognized in income.

e) Suppose an asset was acquired at home, financed out of a foreign currency borrowing. A substantial depreciation of the home currency takes place. Further, there is no practical means of hedging the liability. In such cases, the exchange loss is sometimes regarded as an adjustment to the cost of the asset and the asset is carried at the adjusted value.

f) For translating a foreign entity's balance sheet into the parent's currency of reporting various methods can be followed. The *closing rate* method uses the rate prevailing on the parent's balance sheet date.

The *current/ non- current* method uses the closing rate for current assets and liabilities and historical rates for non-current assets and liabilities. Temporal method translates cash, receivables and payables at the closing rate while other items are translated at historical rates. The *monetary/ non-monetary* method translates monetary assets and liabilities (e.g. receivables and payables, cash, etc.) at the closing rate while non-monetary assets and liabilities (e.g. inventories) are translated at historical rates.

In contrast to the current/non-current method, the major difference arises in translating long-term debt for which the monetary - non-monetary method uses the closing rate. This can give rise to large translation losses or gains. For revenue and expense items from

the income statement, there is a choice between using the raise prevailing at the time. The transaction was booked or a weighted average rate for the period covered by the statement.

8.4.1 Accounting Exposure - Translation Method :

Since only these items translated at current rates are (in the accounting sense) exposed to the exchange risk, then the question of which items translated at which rate is vital one in determining a company's accounting exposure. Unfortunately, there is worldwide disagreement on the question. Four methods of foreign currency translation have been used in recent years, viz., the current / non-current method, the monetary / nonmonetary method, the temporal method, and the current rate method.

(i) Current / Noncurrent method :

This method differentiates between assets and liabilities on the basis of 'maturity'. With this method, all the foreign subsidiaries' current assets and liabilities are translated into home currency at the current exchange rate. Each noncurrent asset or liability is translated at the historical rate. On the other hand, items in the income statements are translated at the average exchange rate of the period, except for those revenue and expense items associated with noncurrent assets or liabilities.

The current / noncurrent method of foreign currency translation was generally accepted in the United States from the 1930s until 1975, when, 'Financial Accounting Standards Board Statement 8' (FASBS-8) became effective. The underlying principle of this method is that assets and liabilities should be translated based on their maturity. Under this method, a foreign subsidiary with current assets in excess of current liabilities will cause a translation gain (loss) if the local currency appreciates (depreciates). The opposite will happen if there is negative net working capital in local terms in the foreign subsidiary.

Most income statement items under this method are translated at the average exchange rate for the accounting period. However, revenue and expense items that are associated with noncurrent assets or liabilities, such as depreciation expense, are translated at the historical rate that applies to the applicable balance sheet item.

(ii) Monetary / Non-Monetary Method :

This method is based on the distinction between monetary assets and liabilities - those items that represent a claim to receive or an objective to pay a fixed amount of foreign currency units - and nonmonetary or physical assets and liabilities. All monetary balance sheet accounts (for example, cash, marketable securities, accounts receivables, notes payable, accounts payable) of a foreign subsidiary are translated at the current exchange rate. All other (nonmonetary) balance sheet accounts, including stockholders' equity, are translated at the historical exchange rate in effect when the account was first recorded. Compared to the current / noncurrent method, this method differs substantially with respect to accounts such as inventory, long-term receivables, and long-term debt.

The underlying philosophy of the monetary / nonmonetary method is that monetary accounts have a similarly because their value represents a sum of money whose currency equivalent after translation changes each time the exchange rate changes. Income statement items are translated at the average exchange rate during the period, except for revenue and expense items related to nonmonetary assets and liabilities. The latter items,

primarily depreciation expense and cost of goods sold, are translated at the same rate as the corresponding balance sheet items. As a result, the cost of goods sold may be translated at a rate different from that used to translate sales.

(iii) Temporal Method :

Under this method, monetary accounts such as cash, receivables, and payables (both current and noncurrent) are translated at the current exchange rate. Other balance sheet accounts are translated at the current rate, if they are carried on the books at current value; if they are carried at historical costs, they are translated at the rate of exchange on the date the item was placed on the books. Since fixed assets and inventory are usually carried at historical costs, the temporal method and the monetary / non-monetary method will typically provide the same translation.

Thus, the modified version of the monetary / nonmonetary method is the temporal method. Nevertheless, the underlying philosophies of the two methods are entirely different. Under the temporal method, most income statement items are translated at the average exchange rate for the period. Depreciation and cost of goods sold, however, are translated at historical rates if the associated balance sheet accounts are carried at historical costs.

(iv) Current Rate Method :

Under the current rate method, all balance sheet accounts are translated at the current exchange rate, except for stockholders' equity. This is the simplest of all translation methods to apply. The common stock account and any additional paid-in capital are carried at the exchange rates in effect on the respective dates of issuance. Year-end retained earnings equal the beginning balance of retained earnings plus any additions for the year. If a firm's foreign currency denominated assets exceeds its foreign currency - liabilities, devaluation will result in a loss and a revaluation in a gain.

Under the current rate method, income statement items are to be translated at the exchange rate at the date the items are recognized. Since this is generally impractical, an appropriately weighted average exchange rate for the period may be used for the translation. Since these various methods are recognized by the accounting profession in most parts of the world, then the identification of accounting exposure and the concomitant balance sheet translation gains and losses is surely an arbitrary process.

8.4.2 Management of Translation Exposure :

Management of corporate exposure is vital in the dynamic exchange rate scenario. The exposure information system is helpful in managing the corporate exposure. It is, generally, not possible to eliminate both translation and transaction exposure. In some cases, the elimination of one exposure will also eliminate the other. The translation process has no direct effect on reporting currency cash flows, and will only have a realizable effect on net investment upon the sale or liquidation of the assets.

Two ways to control translation risk are: balance sheet hedge and derivatives hedge. Since translation exposure does not have an immediate direct effect on operating cash flows, its control is relatively unimportant in comparison to transaction exposure, which involves potential real cash flow losses. Since it is, generally not possible to eliminate both

translation and transaction exposure, it is more logical to effectively manage transaction exposure, even at the expense of translation exposure.

Exchange risk management strategies and techniques may be classified into internal and external according to their basic origin. Internal techniques are mainly used as a part of company's regulatory financial management aimed at reducing and preventing an exposed position from arising. The internal techniques are - Netting, Multilateral netting, Matching, Leading and Lagging, Pricing policies, Asset and Liability management. The external techniques are used to ensure against the possibility that exchange losses will result from the exposed position which the internal measure have not been able to eliminate. It consist basically the contractual measures to ensure against an exchange loss which may arise from an existing translation or exposed position. The major external exposure management techniques are - forward contracts, short-term borrowing, discounting, factoring and government exchange risk guarantees.

8.5 Financial Accounting Standards Board Statements :

i) Financial Accounting Standards Board Statement 8 :

Became effective on January 1, 1976, FASB 8's objective was to measure in dollars an enterprise's assets, liabilities, revenues, or expenses that are denominated in a foreign currency according to generally accepted accounting principles. FASB 8 is essentially the temporal method of translation, but there are some subtleties. FASB 8 ran into acceptance problems from the accounting profession and MNCs from the very beginning.

The temporal method requires taking foreign exchange gains or losses through the income statement. Consequently, reported earnings could, and did, fluctuate substantially from year to year, which was irritating to corporate executives. Many MNCs did not like translating inventory at historical rates, which was required if the firm carried the inventory at historical values. It was felt that it would be much simpler to translate at the current rate.

ii) Financial Accounting Standards Board Statement 52:

Given the controversy surrounding FASB 8, FASB 52 was issued in December 1981, and all U.S., MNCs were required to adopt the statement for fiscal years beginning on or after December 15, 1982. The stated objectives of FASB 52 are to : (i) provide information that is generally compatible with the expected economic effects of a rate change on an enterprise's cash flows and equity; and (ii) Reflect in consolidated statements the financial results and relationships of the individual consolidated entities as measured in their functional currencies in conformity with U.S. generally accepted accounting principles.

Many discussions of FASB 52 claim that it is a current rate method of translation. This, however, is a misnomer, as FASB 52 requires the current rate method of translation in some circumstances and the temporal method in others. Which method of translation FASB 52 prescribes depends upon the functional currency used by the foreign subsidiary whose statements are to be translated.

8.6 Tax Treatment of Gains And Losses:

Foreign exchange transactions can result in a gain or loss in case the relative value of the two currencies changes between contract date and the date of payment of the contract. There can be a gain or loss in one currency expressed in terms of the other. Similarly when accounts expressed in one currency are translated into another currency, the profit or toss on foreign exchange may affect the taxation charge imposed on the company at home or abroad. But the complication start when the fax rates differ between countries. Certain countries differentiate between foreign exchange deals covering revenue and those covering capital transactions. Two authorities in some countries ignore foreign exchange gains or losses unless they are actually realized. Tax authorities in other countries consider unrealized gains and losses to be fully taxable. The overall objective of the tax policy is to arrange matters in such a way that gains on exchange rate adjustments are made to arise in a form which are not taxable and losses is a form which are allowable against other income.

Companies adopt two basic approaches in the tax treatment of foreign exchange gains and losses. The firm approach is called *Separate Transactions* approach. This approach treats the foreign exchange bought or sold as an asset. The gain or loss on foreign exchange is then separated from any gain or loss on the underlying transaction. The tax effect will arise when the transaction is closed by payment, not when the contract is signed. The *integrated approach* on the other hand, ties the foreign exchange gain or loss into the contract it finances. This theory assumes the foreign currency as a medium of exchange rather than an independent asset. Any profit or loss on foreign exchange would be added to or subtracted from the profit on the underlying transaction. The tax treatment of this or lose might be affected by the nature of the underlying transaction, that is whether it is of a capital or revenue nature.

8.7 Information Management for Exposure Management :

Effective exposure management requires a well designed management information system (MIS). Exposures above a certain minimum size must be immediately reported to the executive or department responsible for exposure management. The three types of exposures - transaction, translation and operating must be clearly separated. The exposure management team must evolve a procedure for assessing the risk associated with these exposures by adopting a clearly articulated forecasting method or scenario approach. The benchmark for comparing the alternative scenarios must be clearly stated. All exposed positions including their hedges if any should be mentioned at frequent intervals to estimate the mark-to-market value of the entire portfolio consisting of the underlying exposures and their corresponding hedges.

When a particular exposure is extinguished, a performance assessment must be e carried out by comparing the actual all-in rate achieved with the benchmark. This should be done at regular intervals with the frequency of assessment being determined by the size of exposures and their time profiles. A strategic review of the entire business model must incorporate a realistic assessment of the impact of exchange rate fluctuations on the firm's entire operations in the medium to long-term.

8.8 Summary :

In this lesson, we have discussed the nature and management of accounting (translation) exposure. Accounting exposure relates to the effect that an unanticipated change in exchange rates will have on the consolidated financial reports of a MNC. The four recognized methods for consolidating the financial reports of an MNC include the current / noncurrent, the monetary / nonmonetary method, the temporal method, and the current rate method.

It was noted that under the current rate method the gain or loss due to translation adjustment does not affect reported cash flows, as it does with the other three translation methods. The old translation method prescribed by the Financial Accounting Standards Board, FASB 8, was discussed and compared with the prescribed process, FASB 52. The current rate method is used to translate from the functional currency to the reporting currency. In some cases, a foreign entity's functional currency may be the same as the reporting currency, in which case translation is not necessary. When a net translation exposure exists, a cumulative translation adjustment account is necessary to bring balance to the consolidated balance sheet after an exchange rate change.

Two ways to control translation risk were - a balance sheet hedge and a derivatives "hedge". Since translation exposure does not have an immediate direct effect on operating cash flows, its control is relatively unimportant in comparison to transaction exposure, which involves potential real cash flow losses. It is generally not possible to eliminate both translation and transaction exposure, it is more logical to effectively manage transaction exposure, even at the expense of transaction exposure. Thus, two basic objective of foreign exchange risk management being maximization of exchange gain or minimization of exchange loss requires the design of strategy of managing exposure.

8.9 Key words :

Balance Sheet hedge eliminates the mismatch of the net assets and liabilities of currency in translation exposure.

Accounting Exposure arises on the consolidation of foreign subsidiaries' accounts into the parent-currency-denominate group financial statements.

Current rate method translates at the current rate all balance sheet and income statement items.

Economic (Cash flow) Exposure is concerned with the effects of an exchange rate change on the home currency value of the future cash flows generated by a company's foreign operations.

FASB 8 to measure in dollars an enterprise's assets, liabilities, revenues, or expenses that are denominated in a foreign currency according to generally accepted accounting principles.

8.10 Self Assessment Questions :

1. What is 'Exposure'? Explain briefly different types of exposures
2. What are the important techniques of exposure management which may be adopted by an MNC ?
3. Narrate the different translation methods of accounting exposure.
4. Explain the difference in the translation process between the monetary/ non-monetary and the temporal method.

8.11 Further Readings :

1. Cheol S. Eun and Bruce G. Resnick - International Financial Management
2. Apte P.G. - International Financial Management
3. Rajwada A.V.- Foreign Exchange, International Finance and Risk Management.
4. Arpan, J.S. and L.H. Radenbaugh - International Accounting and Multinational Enterprises
5. Coopers & Lybrand - Foreign currency Translation and Hedging.

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LESSON – 9

FOREX RISK MANAGEMENT - MANAGING TRANSACTION EXPOSURES

Objectives:

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

concept of exposure in international financial management

transaction exposure and its management techniques

speculation in foreign exchange and money markets

distinguish features between accounting and economic exposures

Structure:

9.1 Introduction :

The dynamics of foreign exchange rate worries all companies transaction in the foreign exchange market. All multinational firms in the process of the international financial transaction are exposed to exchange risk. In this context "exposure" and different types of exposure are important for company's foreign exchange risk management. All foreign currency denominated assets, liabilities and income streams are exposed to exchange risk. Basically the exposure is of two types - Accounting exposure or translation exposure and economic (cash flow) exposure which consists of transaction exposure and operating exposure. Accounting exposure and its translation methods are discussed in lesson 8. This lesson is devoted to transaction exposure and the various issues relating to it.

9.2 Concept of Transaction Exposure:

The exposure inherent in foreign currency transactions is known as "transaction exposure". This consists of lot of trading items and capital items. Transaction exposure, can be defined as the sensitivity of "realized" domestic currency values of the firm's contractual cash flow 'denominated' in foreign currencies to unexpected exchange rate changes. Since settlements of these contractual cash flows affect the firm's domestic currency cash flows, transaction exposure is sometimes regarded as a short-term economic exposure. Transaction exposure arises from fixed-price contracting in a world where exchange rates are changing randomly.

Transaction exposure is clear and easy to understand. For example if an Indian company invoices an export customer, for say, French Franc one million, then for the period between the contract date and the date of receivable, the exporter has an exposure of FF one million. If the French Franc were to appreciate by 10% against Indian rupee during this period, then a realized gain of 10% of the exposure will occur. Thus, a change in the value of French Franc may lead to cash gain / loss to a company. It may also affect the company's tax position. This kind of exposure is now fully recognized by all participants in international business.

It can be understood form the above discussion that, transaction exposure is the possibility of incurring exchange gains or losses, upon settlement at a future date, on transactions already entered into and denominated in a foreign currency. Although transaction exposure is often included under accounting exposure, it is more properly a cash flow exposure and hence parts of economic exposure. Unlike economic exposure, transaction exposure is well defined: The magnitude of transaction exposure is the same as the amount of foreign currency that is receivable or payable. This lesson will thus focus on

alternative ways of hedging transaction exposure using various financial contracts and operational techniques. The various techniques for managing transaction exposure are discussed in the following sections.

9.3 Exposure Information System :

Transactional companies face-varying degrees of business and financial risks at micro economic level. Their need for information relevant to exposure identification differs. Therefore, as with the other areas of corporate exposure management, no single exposure information system will be right for all companies. The appropriate system must be firm specific; it must take into account the size of the company and its constituent units, the exposure objectives and strategy of the company, its operational and organizational characteristics, personnel strength and so on. There are, however five basic elements which should be present in all exposure management systems. Those are, 1) the information should be anticipatory; (2) the reporting frequency must be adequate; (3) the information flow should be direct to the company; (4) the rationale of the information requirement must be understandable; and (5) the degree of information required should be subsidiary specific. These general reporting principles should be the basis of all exposure information systems.

Exposure information systems can be categorized into two functional components: 1) the exposure identification system - which require information on the accounting and / or cash flow exposures generated by group companies; and (2) the exposure management information system - which details of decision parameters and constraints to be considered in deciding what exposure management action is required.

9.4 Techniques of Hedging Transaction Exposure :

Whenever the firm has foreign-currency-denominated receivables or payables, it is subject to transaction exposure, and their settlements are likely to affect the firm's cash flow position. In view of the fact that firms are now more frequently meeting into commercial and financial contracts denominated in foreign currencies, judicious management of transaction exposure has become an important function of international financial management. Management of transaction exposure is essentially a day-to-day operation carried out by the treasurer. It involves continuous monitoring of exchange rates and the firm's exposure, along with an evaluation of the effectiveness of the hedging techniques employed.

Management of exposure essentially means reduction or elimination of exchange rate risk through hedging. The various instruments for managing the transaction exposure can be classified as internal and external instruments. Internal instruments are those which are part of the day-to-day operations of a company, while external instruments are the ones which are not part of the day-to-day activities and are especially undertaken for the purpose of hedging exchange rate risk.

9.4.1 Forward Exchange Contracts :

Perhaps the most direct and popular way of hedging transaction exposure is by currency forward contracts. Generally speaking, the firm may sell or buy its foreign currency receivables or payables forward to eliminate its exchange risk exposure. 'Covering' and 'hedging' are sometimes used interchangeably. A forward safe to protect the home currency

(HC) value of a foreign currency receivables is a covering operations, since settlement date the foreign currency receivables will automatically liquidate the forward sale. In contrast, the hedging involves the protection of accounting value of foreign currency denominated assets and liabilities against unrealized losses or gains.

In deciding between various techniques it is the least cost alternative which could be chosen. There is, however, some disagreement on how to calculate the cost of forward cover, mainly because there are two kinds of 'cost' involved: an 'ex ante' cost and an 'ex post' cost. The most useful definition of the cost of forward cover is the 'ex post' or opportunity cost approach. This defines the cost of forward cover as the HC amount that would have been received (paid) if the exposed receivable (payable) had been left uncovered, less the HC amount, which the forward contract yields. For practical purposes, the forward rate versus settlement spot rate approach provides a reasonable estimate of opportunity cost. The opportunity cost of forward cover cannot be known until settlement date. It is only with the aid of hindsight the finance manager can judge whether the forward deal is in fact the cheaper exchange risk management option.

The two basic ways of covering a foreign currency receivable (or payable) with an uncertain settlement date by using the forward market are forward option and forward swap deals. The forward option is the simplest method of dealing with an uncertain payment date, but it can also be costly because of uncertainty regarding the option exercise. The second technique, swap deal means the simultaneous buying and selling of a currency for different maturities. Swap deals can be of two types a forward and spot swap. A forward swap is simply a paid of forward exchange deals involving a forward purchase and a forward sale of a currency, simultaneously entered into by of different maturities. The main shortcoming of swap deals is that they do not give complete protection against exchange risk.

9.4.2 Short-term Borrowing :

Short-term borrowing is an alternative technique for covering or hedging on the forward market. A Company can borrow either dollar or the local currency. Through short-term borrowing technique the settlement dates and the continuing stream of foreign currency exposure, the main practical transaction's exposure management difficulties, can be handled quite easily. Indeed, short-term borrowing has some advantages here over forward cover. This technique can be used to simultaneously handle the problems of continuing foreign currency exposures and uncertain settlement dates. Government controls and differential tax effects are relevant to the distinction between handling a covering of transaction exposures.

9.4.3 Options Market Hedge :

One possible shortcoming of both forward and money market hedges is that these methods completely eliminate exchange exposure. Consequently, the firm has to forgo the opportunity to benefit from favorable exchange rate changes. Unlike the forward contract, which has only one forward rate for a given maturity, there are multiple exercise exchange rates for the options contract. While evolving a suitable strategy, the outcomes of all the three alternative hedging strategies - forward market hedge, money market hedge and options market hedges are to be summarized.

9.4.4 Exposure Netting :

Netting simply means offsetting exposures in one currency with exposure in the same or another currency, where exchange rates are expected to move in such a way those losses on the first exposed position should be offset by gains on the secured currency exposure. In the bilateral netting, each pair of subsidiaries nets out their own positions with each other. Flows are reduced by the lower of each company's purchases from or sales to its netting partner. There is no attempt to introduce the net positions of their group companies. To illustrate, consider XYZ Company (India) owes XYZ Company (U.K.) the sterling equivalent of $5 million, and if XYZ Company (U.K.) owes XYZ Company (India) the sterling equivalent of $3 million, then the external cash remittance is netted out so that XYZ Company (U.K.) pays XYZ Company (India) sterling equivalent of $2 million. The two companies have saved between then the exchange and transfer costs associated with $3 million of eliminated flows.

A complex form of netting; 'Multilateral netting' can take place when affiliates both import from and export to companies within the same corporate group. Flows are reduced by the lower of each company's total purchase from sale to affiliates. The focal point in a multilateral netting scheme is the central information point. It requires a centralized communications system and a lot of discipline on the part of participating units. The major benefits of netting are reduced banking costs and increased control of inter-company settlements. The reduced number and total amount of payment produces savings in the form of lower flow and lower exchange costs.

9.4.5 Leading and Lagging :

Leading and lagging can also be used to hedge exposures. This simply refers to the adjustment of inter-company credit terms, 'leading' meaning a prepayment of a trade obligation and 'lagging' a delayed payment. A company can lead payments required to be made in a currency that is likely to appreciate, and lag the payments that it need to make in a currency that is likely to depreciate. As with other schemes involving central decision making, leading and lagging requires a lot of discipline on the part of participating subsidiaries. To overcome the consequent evaluation problem multinational companies which make extensive use of leading and lagging may either evaluate subsidiary performance on a pre-interest basis or impute interest charges and credits where appropriate. One significant complicating factor is, if there are powerful local shareholder in the 'losing' subsidiary there will be strong objections because of the interest cost / lower profitability resulting from the consequent local borrowing. In such case of leading and lagging the interests of the minority shareholders are subordinate to those of the minority shareholder (the parent company).

9.4.6 Hedging through Invoice Currency :

One very simple way of eliminating transaction is to invoice all receivables and payables in the domestic currency. However, only one of the parties involves can hedge itself in this manner. It will still leave the other party exposed, as it will be dealing in a foreign currency. Another way of using the choice of invoicing currency as a hedging tool relates to the outlook of a firm about various currencies. This involves invoicing exports in a hard currency and imports in a soft currency. Another way the parties involved in international transactions may hedge exposures is by sharing the risk. This may be achieved by

denominating the transaction partly in each of the domestic currencies of the parties involved. This way, the exposure for both the parties gets reduced.

9.4.7 Money Market Hedge :

Transaction exposure can also be hedged by lending and borrowing in the domestic and foreign money markets. Generally speaking, the firm may borrow (lend) in foreign currency to hedge its foreign currency receivables (payables), thereby matching its assets and liabilities in the same currency. The first important step in money market hedging is to determine the amount to borrow.

9.4.8 Hedging through Swap Contracts :

MNCs often deal with a "sequence" of accounts payable or receivable in terms of a foreign currency. Such recurrent cash flows in a foreign currency can best be hedged using a currency swap contract, which is an agreement to exchange one currency for another at a predetermined exchange rate, that is, the swap rate, on a sequence of future dates. A swap contract is like a portfolio of forward contracts with different maturities. Swaps are very flexible in terms of amount and maturity; the maturity can range from a few months to 20 years.

9.4.9 Pricing Policies :

Economic exposure cannot be fully managed by the traditional hedging techniques due to the unpredictability of the changes in the cash flows. Rather, it requires various marketing, production and financial management strategies to cope with the risks. For exposure management purposes, there are two kinds of pricing tactics: price variation and currency-of invoicing policy. There are two main issues involved in developing a pricing strategy - the choice between market share and profits, and the frequency of price adjustments.

(a) Market share Vs. Profit Margin:

When the domestic currency appreciates, a firm can either reduce its domestic currency prices, thus maintaining the foreign currency price which would result in an increase in the foreign currency price. While the former would result in the profit margins coming down, the latter may result in a fall in the market share, which would again effect the profits of the firm. On the other hand, a firm facing a depreciation of the domestic currency may either increase the domestic currency price which would result in the profit margin going up, or maintain them at the pre-depreciation level, thus reducing the foreign currency price to increase its market share.

(b) Frequency of Price adjustments:

While a firm may decide to change the price of its products with a change in the exchange rates, it would still need to decide upon the frequency of such price changes. As we know, exchange rates move even on a minute-to-minute basis. A firm's sales may get effected by frequent price changes, because of the resultant risk faced by its consumers. The question which always arises with the pricing option, of course, is that if the company is able to raise prices then why has it not done so already, irrespective of exposure

considerations ? Given an adverse exchange rate change, how quickly can local selling prices be increased to bring the parent currency equivalent of the foreign operation's cash flows back to the pre-depreciation level ? The determination of this lag requires an analysis of the - competitive situation, customer credibility, price controls, Internal delays, Trading / financing pattern.

9.4.10 Market Selection, Product and Promotional Strategy :

Apart from the pricing strategies, for effective management of economic exposure, the marketing manager needs to analyze the effect of a change in the exchange rate and evaluate the strategy required to manage the exposure. Market selection strategy is useful when the actual or anticipated change in the real exchange rate is likely to persist for a long time. It involves selection of the markets in which the firm wishes to market its products and providing relevant services to provide the firm an edge in these markets. Knowledge about market segmentation is a very important input for the decision about market selection.

Promotional strategy deciding the amount that the firm desires to spend in various markets in promoting its products, needs to take the exchange rate movements into consideration. A change in the exchange rate would change the domestic - currency cost of overseas promotion. Product strategy can be used by a firm to respond to exchange rate movements. It may involve timing of introduction of new products, making product line decisions and product innovations. By offering differentiated product to its customers, the firm may be able to protect its foreign currency price, and hence, its profits. It may be noted that the various exposure management techniques described above are not available in all circumstances. This is mainly because of limitations imposed by the market price. Similarly, the availability of internal techniques is largely a function of the international involvement of each company.

9.5 Corporate Exposure Management Policy :

Management of risk and exposure is an extremely important task and the effectiveness with which it is performed can have serious implications for a company's survival. It is not just a question of using particular instruments like forwards, futures or options to hedge individual exposures, but the important issues which have to be addressed are - the company's strategic business posture, attitude towards risk, organisational design to implement a policy, monitoring and control mechanisms, implications for managerial performance evaluation etc. It is obvious that exposure management policy and its implementation cannot be divorced from the particular set of circumstances which condition a firm's decision making and operations. Hence it would be very difficult to provide a framework with universal applicability.

The risk management function can be said to consist of the four major tasks: 1) Selection of a target performance variable, (2) Identification of those environmental factors that might have significant impact on a firm's performance, (3) Assessing and, if possible quantifying the impact of each of the environmental risk factors on the target performance variable and (4) Choice of an appropriate mechanism or instrument to reduce or shift the risk. It must be noted that risk management need not rely exclusively on financial markets and instruments.

Having broadly defined the tasks, risk management can be viewed as a sequential process consisting of the following steps.

i) Choose an appropriate performance measure

ii) Identify the key risk factors and assess the sensitivity of the performance measure to each of them.

iii) Estimate the risk profile of the performance measure.

iv) Determine the desired risk profile.

. v) The firm's natural hedges and other built in hedges must be fully explored before deciding to choose a market-oriented risk reduction device

vi) Choice of the risk reduction mechanism

vii) Execute the selected transaction

. viii) Monitor the performance of the selected risk reduction mechanism

It is clear that some of these steps, for example, selecting the appropriate measure and specifying the desired risk profile call for top management involvement.

9.6 Speculation in Foreign Exchange and Money Markets :

Speculation in contrast to hedging involves deliberately creating positions in order to profit from exchange rate and / or interest rate movements. The speculator believes that market's forecasts as reflected in forward rates and the term structure of interest rates are "wrong". He hopes to profit by taking open positions at these prices. Not hedging a receivable or payable is thus equivalent to speculation. If a firm has a payable in foreign currency, and is confident that the currency is going to depreciate more than what is implied in the forward rate, it speculates by not covering the payable. Obviously, outright speculation is a high-risk activity. The risk of an open position depends upon the covariance of exchange rate with other assets in the speculator's portfolio. A speculator who is not risking neutral will demand a premium for undertaking the risk.

Speculating with futures is quite similar to speculating with forwards. The main differences are, first, with futures since there are intermediate cash flows, the investor must speculate on interest rate movements too and second, since most futures contracts are liquidated prior to maturity, the relevant comparison is not between expected maturity spot rate and futures price.

9.7 Objectives of Hedging Policy and Organisational Issues :

Managing financial risks must be guided by clearly defined objectives. A clear understanding of the following aspects is needed.

i) Whether the risk management is to be conservative or aggressive Risk management can be totally conservative or can actively seek to profit from financial markets. Each

and every exposure should be fully hedged at all times. Alternatively, a firm may believe that it has superior forecasting ability and high quality financial expertise and may wish to treat risk management as a profit centre. An aggressive risk management policy requires that considerable resource be devoted to the risk management function in terms of trained manpower with the requisite financial expertise, sophisticated communications and computing equipment, access to on-line information about markets and prices and so on.

ii) The appropriate performance measures in terms of which the efficacy of risk management will be evaluated.

iii) If the time horizon is limited to the coming financial year and the focus is on minimizing cash losses, hedging transaction exposure is the critical risk. On the other hand, if the time horizon is longer and the prime concern is sustained profitability and enhancing the firm's competitive position, operating exposure is crucial. In practice, both short-time cash losses and longer-term viability will be important.

Thus, risk management policy must clearly enunciate the risk-return tradeoff, the target performance indicators, the relevant time frame, and the amount and quality of resources the firm is willing to commit to the risk management function. Evolution and implementation of risk management policy cannot be left solely to treasury. Senior executives in other functional departments must be intimately involved at various stages. Effective risk management is predicted upon the existence of structures and evaluation. For multinational corporations with worldwide operations, a critical issue is whether to centralize exposure management or leave it to the individual units in different countries. Measurement of hedging performance is a complex issue. The objective of hedging is presumably risk reduction. The strategy of forward hedging all the exposures all the time may be chosen as benchmark for transactions exposures.

9.8 Summary :

Transaction exposure is the possibility of incurring exchange gains or losses, upon settlement at a future date, on transactions already entered into and denominated in a foreign currency. Although transaction exposure is often included under accounting exposure, it is more properly a cash flow exposure and hence part of economic exposure. The firm is subject to a transaction exposure when it faces contractual cash flows denominated in foreign currencies. Transaction exposure can be hedged by financial contracts like forward, money market, and options contracts, as well as by such operational techniques- forward market hedge, choice of invoice currency, leading & lagging, and exposure netting.

If the firm has a foreign-currency denominated receivable (payable), it can hedge the exposure by selling (buying) the foreign currency receivable (payable) forward. The firm can reduce transaction exposure by leading and lagging foreign currency receipts and payments, especially among its own affiliates. In reality, capital markets are far from perfect, and the firm often has advantages over the stockholders in implementing hedging strategies. There, thus exists room for corporate exposure management to contribute to the firm value. Finally, we have highlighted basic considerations such as the objective of foreign exchange risk

management being maximization of exchange gain or minimization of exchange loss, that enter into the design of strategy of managing exposure. This lesson elaborates various devices available for hedging transaction exposure. The unit has also explained various internal and external exposure management techniques.

9.9 Key Words :

Transaction Exposure is the possibility of incurring exchange gains or losses, upon settlement at a future date, on transactions already entered into and denominated in a foreign currency.

Exposure Netting means offsetting exposures in one currency with exposure in the same or another currency.

Leading and Lagging simply refers to the adjustment of intercompany credit terms, 'leading' meaning a prepayment of a trade obligation and 'lagging' a delayed payment.

Exposure Management Information System explains the decision parameters and constraints to be considered in deciding what exposure management action is required.

9.10 Self Assessment Questions

1. How do you define the transaction exposure? How is it different from economic exposure?

2. Discuss in detail the various techniques for hedging transaction exposure.

3. What are the important internal and external exposure management techniques adopted by a multinational firm?

4. Write short notes on the following :

   a) Forward Contracts b) Leading and Lagging c) Short-term borrowing

9.11 Further Readings

P.G. Apte - International Financial Management
Rajwada A.V. - Foreign Exchange, International Finance and Risk Management
Cheol S. Eun and Bruce G. Resnick - International Financial Management
Bhalla V.K. and S. Shiva Ramu - International Business.

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LESSON 10

FINANCING FOREIGN TRADE

Objectives

After reading this lesson, you should be able to:

- Highlight various types of participants in the project finance.
- To discuss risk associated with international trade
- To discuss elements of an import/export transactions.
- Highlight payment methods for International Trade.

Structure

10.1 INTERNATIONAL FINAICIAL MARKET – AN OVERVIEW

When a multinational enterprise finalises its foreign investment project, it needs to select a particular source, or a mix of funds to finance the investment project. Here it may be noted that a multinational enterprise positions itself on a better footing than a domestic firm as far as the procurement of funds is concerned. A domestic firm gets funds normally from domestic sources. It does get funds from the international financial market too but it is not as easy as in case of a multinational enterprise. The latter can use the parent company's funds for its foreign investment project. It can also get funds from the host country financial market, but more importantly, it tries to get funds from the international financial market. It selects a particular source or a mix of sources or a particular type or types of funds that suits its corporate objectives.

When one discussion takes into account both, the supply aspect and the demand aspect. It embraces, n one hand, the official and non-official sources of funds and the changing profile of the international financial market over past few decades; and on the other, the selection of the sources of funds by the multinational firms depending on the fulfillment of the corporate objectives.

10.2 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. While the main concern of this chapter is with medium-to long-term financing, we will also briefly discuss short-term borrowing.

The issue of the optimal capital structure and subsequently the optimal mix of funding instruments is one of the key strategic decisions for a corporation. Our aim is to bring out the critical dimensions of this decision in so far as it involves international financing and examine the analytics of the cost-return tradeoff. 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. We only touch upon some of these aspects. Exhaustive treatments can be found in specialized works on the subject such as Joshi (2001).

Exhibit 10.1 presents a schematic view of the international financing decision. 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 reader can consult any one of a number of texts on corporate finance to get a flavor of that controversy. While this chapter deals with both debt and equity funding in global markets, we assume here that the firm has somehow resolved the issue of what is the appropriate level of debt it should carry.

Next comes 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?

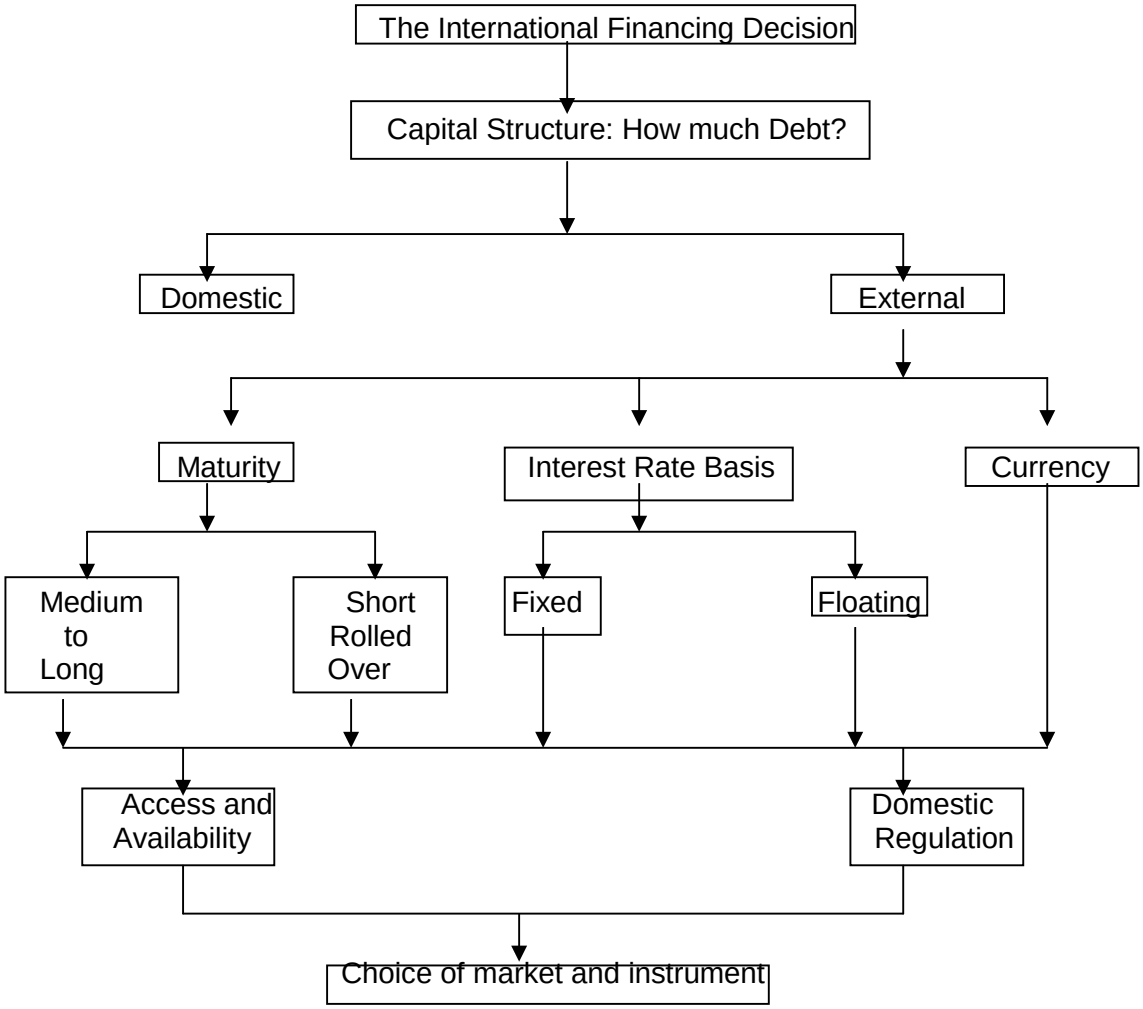
Note that these dimensions interact to determine the overall character of the firm's debt portfolio. For instance, long-term financing can be in the form of a fixed rate bond or short-term debt like commercial paper repeatedly rolled over. Each option has different risk characteristics. Further, the possibility of incorporating various option features in the debt instrument or using swaps and other derivatives can enable the firm to separate cost and risk considerations. 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.

Next, let us address the question: "What should be the overall guiding principles in choosing a debt portfolio?" Giddy (1994) provides the following answer:

"*The nature of financing should normally be driven by the nature of the business, in such a way as to make debt-service payments match the character and timing of operating earnings. Because this reduces the probability of financial distress, it allows the firm to have greater leverage and therefore a greater tax shield. Deviation from the principle should occur only in the presence of privileged information or some other market imperfection. Market*

imperfections that provide cheaper financing exist in practice in a wide range of circumstances".

Exhibit 10.1 The International Financing Decision



10.3 INTERNATIONAL PROJECT FINANCING

Project financing may be defined as financing of an economic unit, legally independent, created with a view to setting up a big project, which is commercially profitable and financially viable. Future cash flows should be sufficient to ensure, with an adequate margin of security, coverage of operational costs and servicing of debt as well as owners' equity.

There are two major methods of financing international projects.

- Financing with total risk borne by lenders where only the future cash flows ensure the reimbursement of the loan. This method of financing was used in petroleum and gas industry in the USA and Canada. Due to increased level of risks, this method of project financing is generally not preferred.

- In another type of financing, the risk is shred both by the lender and promoter. The problem sometimes encountered in this method is to decide the problem in which risk will be shared between the two parties.

Apart from the above major type of financing, of late, a new method of financing has emerged, viz., Build-Operate-Transfer (BOT). As per this method, the investor establishes the project on behalf of the promoter, on successful commissioning he also operates it; it eventually gets transferred to the owner after a certain number of years. This type of financing is becoming popular particularly in developing countries for infrastructure projects.

10.4 PARTICIPANTS IN PROJECT FINANCING

10.4.1 Sponsors:

These are the partners in the project who bring in equity capital or risk capital. Being so, they are keenly interested in the successful completion of the project and shoulder major responsibilities as regards its execution. The fact that they bring in equity capital is an indication of their interest. Further, the amount of equity they contribute has a marked bearing on the extent of debt that can be raised for the project. Others who bring in equity capital are the initiators of the project. Included in the category are multinational firms, future buyers of products or services of the project, the erectors of the project, the public or private investors, international organizations, development banks, etc.

10.4.2 Lenders:

Financing of a big project necessitates intervention of a banking pool consortium composed of banks, national or international financial institutions, export financing institutions, etc, as enumerated below:

(a) The major international banks engaged in this task in developed countries are listed as follows:
   - **USA.** Chase Manhattan, Citi Bank, Morgan Guarantee Trust, Bank of America, Well Fargo Bank, Bankers Trust, Chicago First National Bank, Boston First National Bank, Chemical Bank, etc.
   - **Canada.** Royal Bank of Canada, Bank of Montreal, Canadian Imperial Bank of Commerce, Toronto Dominian Bank, etc.,
   - **Europe.** Lloyd's Bank, Barclay's Bank Credit Lyonnais, Amsterdam-Rotterdam Bank, etc.,

(b) International financing organizations include World Bank, European Bank for Investment (EBI), Caisse Francaise of Development (CFD), and European Bank for Reconstruction and Development (EBRD).

(c) The leading insurance companies in developing countries also act as lenders.

(d) Government agencies providing export credit to boost/aid exports.

(e) The major regional development banks are Arian Development (ADB), African Development Bank, Arabic Development Bank, Inter-American Bank of Development, etc.

10.4.3 Guarantors:

Guarantee may be provided by banks, public financing organizations, international financial institutions, and private insurance companies, etc.

10.4.4 Builders:

Generally, there may be several builders who may group themselves as a consortium. The consortium Trans Manche Link (TML) grouped all the erectors of the tunnel under the English Channel. Sometimes, there may be a single project-managing agency that coordinates different tasks and directs the competition of the project.

10.4.5 Project Operators:

An operating company intervenes in the erection of the project. It brings its organizational know-how to manage the project.

10.5 IMPORTANCE OF INTERNATIONAL PROJECT FINANCE

The advantage of these projects to industries lies essentially in limiting the risks incurred. In effect, bankers are in a better position to bear such risks in view of diversification of their lending internationally. Finally, project financing may be rearranged in such a manner that the company may avail maximum plausible advantage related to depreciation, tax credits/facilities, deduction of financial charges etc. Lenders tend to receive higher compensation, commensurate with higher risks. Their participation in international financing has potentials to augment their income. Further, they can supervise the project as its development progresses and may orient it in such a way so that their interests are better looked after. By participating in these projects, the bankers acquire expertise in dealing with certain types of projects. This, in turn helps in promoting their business.

10.6 RISKS ASSOCIATED WITH INTERNATIONAL PROJECTS:

Some of the major risks associated with international projects are listed and explained here in brief.

10.6.1 Financial Risk

In general, international projects are prone to greater financial risk as bulk of finance is in the form of debt. The major factors affecting financial risk are degree of indebtedness, the terms and conditions of repayment of debt, and currency used. Some projects will have expenses and revenues that involve several currencies. As a result, the exchange rate risk is often very high. Projects may be financed with floating rates. In view of the volatility observed on the rates like LIBOR, the interest rate risk is also significant. Therefore, it is necessary to plan coverage of all these risks.

10.6.2 Political Risk:

Political risk is another major consideration in international projects. It may emanate from increase in the rents, increase of customs duty on the imports necessary to complete the project, exchange control and non-convertibility of currency, limits on transfers, non-payment of debts committed by a previous government etc. In order to minimize this risk, local government may be associated with the project. Insurance against political risk is another useful technique recommended for the purpose.

10.6.3 Other Risks:

The other major risks relate to the risk of cost overruns and bad management. It is not unusual to see a significant rise in the estimated cost. For example, the cost of Eurotunnel had multiplied more than three times vis-à-vis the planned one, and that of Trans-Alaka pipe line increased to 400 per cent of the initial estimates. Likewise, the risks of bad management are many. This happens particularly when there is any misunderstandings take place among partners of the project especially when the project requires additional financing.

The following types of contracts have been put in place for limiting these risks.

(a) Clients commit themselves to buy the production at a given price. Often, it is the promoter of the project who enters into an agreement to buy the production at a price adequate enough to cover the project costs and debt service. These are also called “take and pay” contracts.

(b) Other contracts incorporate an unconditional guarantee of purchase even if there is no delivery. These are ‘take or pay’ contracts/purchase, which assume names as per the nature of contract, e.g., ‘throughput agreement’ in petroleum sector, ‘transportation agreement’ for ships, and ‘processing agreements’ for industrial projects.

(c) There also exist indirect guarantees of loans; guarantee against the default of a creditor, guarantee of covering the projects costs.

Project financing is complex to develop; it is tailor-made as per the needs of a project. It requires a profound technical knowledge on the part of promoters as well as financiers and the past rich experience of dealing with similar type of projects.

10.7 ISSUES IN IMPORT/EXPORT TRANSACTIONS

Each individual trade transaction will need to cover three basic elements: description of goods, prices and documents regarding shipping and delivery instructions.

10.7.1 Contracts:

An import or export transaction is by definition a contractual exchange between parties in two countries that may have different legal systems, monies, languages, religions, or units of measure. Religious practices in countries may have significant impacts on international commercial transactions. In many Islamic countries, for example, interest payments are not allowed and therefore contracts must be constructed carefully to avoid putting parties in conflict with national regulations and religious practices. It is therefore critical to define all terms used in export contracts carefully and fully within the contracts themselves.

All contracts should include definitions and specifications for the quality, grade, quantity, and price of the goods in question. Definitions should be complete and should not use abbreviations. Whenever possible, terms such, as “ton” should be defined further to include quantities if possible (2,000 or 2,200 pounds, for example). References in the contract to published prices or catalogs with associated descriptions are often helpful, as are product, blueprints or diagrams that include any engineering or other technical details related to expected product qualities and characteristics.

10.7.2 Prices:

Price quotations can be a major source of confusion. Price terms in the contract should conform to published catalogs, specify whether quantity discounts or early payment discounts are in effect (and how they are calculated), and state whether finance charges are relevant in the case of deferred payment, transportation charges, insurance fees, or specify surcharges or fees relative to the countries in question.

10.7.3 Documents:

Documentation covers a variety of issues of particular importance from a financial management perspective. An importer wishing to take possession of goods at a dock, airport, or any other point of delivery and clear them through customs must posses certain customs and shipping documents. These typically include bills of lading, commercial invoices, insurance policies, consular invoices, and packing lists.

- **A bill of lading or B/L** is issued to the exporter by a common carrier transporting the merchandise.

- **A signed commercial invoice** is issued by the exporter and contains a precise description of the merchandise. Unit prices, financial terms of sale, and amount due from the importer are indicated, as are shipping conditions related to charges, such

as “FOB” (free-On board), “FAS” (free alongside), “CFR” (cost and freight), or “CIF” (cost, insurance, freight).

- **Insurance documents** must be as specified in the contract of sale and must be issued by insurance companies or their agents. The insurance may be issued to the exporter, who must then endorse the policy to “the importer, or it may be issued in the name of the importer. Insurance must be of types and for risks specified in the letter of credit.

- **Consular invoices** are issued in the exporting country by the consulate of the importing country to provide customs information and statistics for that country and to help prevent false declarations of value. The consular invoice may be combined with a certificate of origin of the goods.

- **Packing lists** may be required so that the contents of containers can be identifies, either for customs purposes or for importer identification of the contents of separate containers. In addition, an export declaration prepared by the exporter to assist the government in the preparation of export statistics may be required.

10.7.4 Shipping deadline:

Most importers insist on a specified deadline or time interval by which the shipment will be made. If the goods in question are particularly time-sensitive (such as products for seasonal sale), remedies will be included in the sales contract for failure to meet time commitments.

10.7.5 Payment instructions:

Which of the parties- the exporter or the importer- is to pay such charges as freight, insurance, import duties, handling fees, taxes, etc., must be specified carefully in the sales contract. The currency in which all payments are to be made between importer and exporter must also be specified clearly. The payment terms state whether cash is to be paid in advance, whether letters of credit are required, and what documents need to be presented against payment, consignments or payment on open account. These terms must be detailed in the sales contract.

10.7.6 Packing and marking:

Depending on the nature of the goods, proper packing may be critical to preserving and protecting items being shipped. Proper marking on the inner and outer boxes and containers are needed to conform to customer’s regulations in countries. These markings typically include and conforming invoices of the value of all items for import duty calculation and payment purposes.

10.7.7 Warranties, guarantees and inspections:

Assurances regarding the performance or qualities demonstrated by the goods from the exporter may also be included in the sales contract. This may include not only protection against product defects and proper performance, but also protection against any

consequential damages from defective parts or performance. In some cases the importer may wish to have the right to inspect the goods before paying (and even the right to inspect the goods which being manufacture before shipping). These stipulations should of course be delineated in the sales contract. Included in documents may be certificates of analysis, required to ascertain that certain specifications such as weight, purity, or sanitation have been met. Health or other officials of the importing country- especially in the case of foods and drugs- may require these conditions or the importer as assurance that it is receiving what it ordered may insist them on. Government or private organizations, as specified in the letter of credit, may issue the certificates.

10.8 PAYMENT METHODS IN INTERNATIONAL TRANSACTIONS

In any international trade transactions, the credit is arranged by the supplier (exporter) to the buyer (importer) on some financial institutions, or any combination of these. Supplier may have sufficient cash flow to fund the entire trade cycle, beginning with the production of the product until the buyer eventually makes payment. This form of credit is known as supplier credit. In some cases, the exporter may require bank financing to augment its cash flow. On the other hand, the supplier may not desire to provide financing, in which case the buyer will have to finance the transaction itself, either internally or externally, through its bank. Banks on both sides of the transaction can play an integral part in trade financing.

10.8.1 Cash Payment:

Cash payment may be either cash on delivery (COD) or cash before delivery (CBD). Under either COD or CBD terms the exporter does not extend credit. Although credit risk does not exist under either term, COD terms are accompanied by the risk that the importer may refuse the shipment while CBD terms avoid all risk. Under CBD terms, the exporter may insist on cash at the time of order or he may specify the time of cash payment prior to shipment. Another possible arrangement is that a part of the payment is made at the time of order, that progress payments are made between the time of order and the time of shipment, and that the final payment is made just before the release of the goods to a common carrier.

Cash payments are exceptional in these days of serve international competition. While cash-type transactions are ideal from the exporter's point of view, the importer does not like such transactions. This is because the importer is forced to accept all risks in transit, in exchange fluctuations, and in the quality of the goods received. Consequently, the exporter will insist on cash terms only in instances of the importer's poor credit standing or extreme political risks in the importing country. If the sale involves products specially manufactured for the importer, the exporter may demand some kind of advance-payment arrangement.

10.8.2 Letter of Credit:

A letter of credit is a document issued by a bank at the request of the importer. In the document, the bank agrees to honour a draft drawn on the importer if the draft accompanies specified documents such as the bill of lading. In a typical use, the importer asks that his local bank write a letter of credit. In exchange for the bank's agreement to

honour the demand for payment that results from the import transaction, the importer promises to pay the bank the amount of the transaction and a specified fee.

The letter of credit is of advantage to both exporters and importers because it facilities International trade. It gives a number of benefits to exporters. *First,* they sell their goods abroad against the promise of a bank rather than a commercial firm. Because banks are usually larger and better credit risks than most business firms, exporters are almost completely assured of payment if they meet specific conditions. *Second,* they can obtain funds as soon as they have such necessary documents as the letter of credit and the bill of lading. When shipment is made, the exporter prepares a draft on the importer in accordance with the letter of credit and presents it to his local bank. If the bank finds that all papers are in order, it advances the funds, the face value of the draft less fees and interest.

Although its major beneficiaries are exporters, the letter of credit also gives a number of benefits to importers. *Firs,* it assures them that the exporter will be paid only if he provides certain documents, a bank carefully examines all of which. If the exporter is unable or unwilling to make proper shipment., recovery of the deposit is much easier from the bank than from the exporter. *Second*, the letter of credit enables the importer to remove the commercial risk for the exporter in exchange for other considerations. Thus, the importer can bargain for better terms such as a lower price. Moreover, it is comparatively cheaper to finance the goods under a letter of credit than by borrowing.

10.8.3 Drafts:

A draft or a bill of exchange is an order written by an exporter that requires an importer to pay a specified amount of money at a specified time. Through the use of drafts, the exporter may use its bank as the collection agent on accounts that the exporter finances. The bank forwards the exporter's drafts to the importer directly or indirectly (through a branch or a correspondent bank) and then remits the proceeds of the collection back to the exporter.

A draft involves three parties: the drawer or maker, the drawee, and the payee. The drawer is the person or business that issues the draft. This person is ordinarily the exporter who sells and ships the merchandise. The drawee is the person or business against whom the draft is drawn. This person is usually the importer who must pay the draft at maturity. The payee is the person or business to whom the drawee will eventually pay the funds. If the draft is not a negotiable instrument, it designates a person or bank to which payment is to be made. Such a person, known as the payee, may be the drawer himself or a third party such as the drawer's bank.

However, this is generally not the case because most drafts are a bearer instrument. Drafts are negotiable if they meet a number of conditions. (1) They must be in writing and signed by the drawer-exporter. (2) They must contain an unconditional promise or order to pay an exact amount of money. (3) They must be payable on sight or at a specified time. (4) They must be made out to order or to bearer. If it is made out to bearer, the funds should be paid to the person who presents it for payment.

There are two types of drafts: sight drafts and time drafts. A sight draft is payable on demand to the drawee-importer. A time draft is payable a specified number of days after presentation to the drawee. When a time draft is presented to the drawee, the drawee or his

bank accepts it. This acceptance acknowledges in writing the drawee's obligation to pay the sum indicated on the face of the draft. When the importer accepts drafts, they become trade acceptances. When the bank accepts drafts, they become banker's acceptance. Because bankers' acceptance is highly marketable, the exporter can sell them in the market or discount them at his bank. Whenever they are sold or discounted the seller adds his endorsement on the back of the draft. In the event of the importer's failure to pay at maturity, the holder of the draft will have recourse for the full amount of the draft from the last endorser.

There are a number of reasons why drafts are used in foreign trade. (1) They provide written evidence of obligations in a comprehensive form. (2) They allow both the exporter and the importer to reduce the cost of financing and to divide the remaining costs equitably. (3) They are negotiable and unconditional. That is, drafts are not subject to disputes, which may occur between the parties involved.

10.8.4 Consignments:

Goods for export may be consigned to the exporter's own agent (subsidiary), an independent agent, or an import house. Assume that an exporter in India ships to an importer in London, 100 cases of quart bottles on a consignment basis. Because the exporter pays all the expenses connected with the shipment, the importer incurs no expenses at the time this shipment is delivered to this warehouse. Actually, the 100 cases of bottles are still the exporter's inventory. Thus, if the importer should fail, the exporter can demand that all the unsold bottles be returned to him.

10.9 METHODS OF FOREIGN TRADE FINANCE

Trade deals require finance. Availability of finance enables the exporter to export more and the importer more. In other words, Availability of finance encourages trading activities. Here we discuss how the traders get finance from banks and other sources.

10.9.1 Bank Credit:

Banks are the most important source of foreign trade finances. The importers do borrow from the banks, but the exporters are the major beneficiaries. The different forms of credit are:

- Pre-shipment credit
- Post-shipment credit
- Medium-term credit
- Credit under duty drawback scheme.

(i)Pre-shipment Credit:

Pre-shipment credit provided to the exporters is meant for procuring raw material, processing and packing of goods and for some other processes till the goods are really shipped. This type of credit is also known as packing credit. It is extended normally on the

strength of purchase order. It is extended in the form of a loan amount. A separate account is maintained for each export order. Alternatively, it may be a running account that is, a single cash credit amount for all export orders. Inputs purchased out of such credits are hypothecated or pledged to the bank, although in exceptional cases, it may be a clean advance.

The credit is extended not in a lump-sum amount but in stages, depending upon the need of the exporter. It is a short-term credit, normally not exceeding 180 days, but it can exceed up to 270 days in exceptional cases. If it exceeds 180 days, interest rate goes higher. Sometimes credit is partly given to the supplier and partly to the exporter if the supplier and the exporter are two different persons. But in this case, the period of 180 days does not exceed, rather it is divided between the two, say 90 days for the supplier and the remaining 90 days for the exporter.

As regards the size of the credit, it does not exceed the FOB price or the domestic cost of production whichever is less. The bank may maintain a margin, depending upon the credit of the exporter or upon the nature of goods to be exported. In exceptional cases, it is more than the FOB price when the local cost of production is very high and the commodity is eligible for incentives from the government.

Pre-shipment credit is also provided in the form of foreign currency. The purpose is to finance the import of inputs for goods to be exported. In India, it is provided to the exporters having a turnover of Rs.100 million and above to those manufacturers whose 25 per cent of the output is committed for export. The amount of the credit is repaid out of export proceeds.

(ii) Post-shipment credit:

Post-shipment credit is extended by the banks after the goods have been shipped and against the submission of export documents evidencing the shipment of the goods. It is also a short-term credit. The rate of interest is lower up to 90 days, but then it increases and it is still higher beyond 180 days. The purpose of progressive interest rate is to make this credit strictly a short-term one.

There are different ways to extend post-shipment credit. When bill is drawn not under L/C, that is when L/C does not cover transaction, credit is available through the purchase of export documents. The bank takes special precaution before granting credit in such cases. It is because there is no guarantee for payment. If the importer refuses to pay and if the financial position of the exporter is not sound for the repayment of credit, the bank is put to loss. Even if it redirects the ship, it has to bear the additional freight and insurance charges. This is why the bank examines thoroughly the financial ratios of the importer and obtains a cover from an insurance company before extending such credits.

When bill is drawn under L/C, there is guarantee for payment. However, the bank examines whether the documents are exactly in tune with the terms and conditions mentioned in the L/C. When the bank is satisfied, it negotiates the document and extends credit to the exporter. The negotiating bank sends the documents and the bill for collection. There are sometimes cases when the export documents do not comply with the norms set in the L/C. In this case too, the bank extends credit but only to the creditworthy clients. When

the goods are exported on a consignment basis, it does not mean at all that the goods have been sold and the export proceeds will definitely be received. In such case too, the bank provides credit but maintains a sufficient margin.

(iii) Medium-term credit:

There are certain categories of export, such as engineering items, capital goods and project export, in case of which short-term finance does not meet the desired objective. It is because the importers normally withhold a part of the cost of goods/services towards guarantee of performance. Such withholding generally crosses the six-moth mark and so the short-term finance is hardly of any use in these cases. It thus necessitates medium-term credit.

Broadly speaking, there are two types of medium-term credit. One is known as supplier credit, while the other is known as buyer credit. For supplier credit, the exporter provides deferred-payment terms to the importer. This means that the importer makes payment for the import in installments. And to meet the working capital requirements on account of deferred payment, the exporter borrows from the bank. The bank provides the supplier credit either at the pre-shipment stage or at the post-shipment stage, or at both the stages.

(iv) Advances under duty drawback scheme:

The duty drawback scheme provides that the duty paid by the exporter on the imported inputs or the excise duty paid on the goods produced for export are repaid to the exporter on the completion of the export. Since the exporter's cash is locked up during the period between the payment of duty and the completion of export, the exporter is given a cash advance by the banks for this period. Such an advance is given both at the pre-shipment stage and the post-shipment stage.

At the pre-shipment stage, it is represented by additional amount of credit over and above the FOB value of the goods. It is because the credit up to the FOB value is purely the pre-shipment or packing credit. If the bank grants additional amount over and above the FOB value, it is nothing but an advance against the duty drawback. At the post-shipment stage, the bank extends it when an exporter makes a claim with the bank.

The period of such advance is three months. It is the exporter's bank that gets the duty drawback from the government on behalf of the exporter. When it gets the amount, it adjusts the advance with this amount. There is no interest charged on such an advance.

10.9.2 Factoring:

The exporter receives the payment normally after a number of days of the shipment. During this period, its export is treated as account receivables. Again, there is possibility of bad debt loss involved in the transaction. Thus, in order to avoid the bad debts loss, to avoid the collection expenses and to get immediate payment for export, the exporter sells its receivables without recourse to a bank. The process of the sale of receivables is known as factoring. Now it is the bank that has to collect the amount from the importer.

Since the bank has to bear the risk of non-payment, and at the same time, it has to pay the collection charges, it usually purchases the receivables at discount and receives a flat processing fee. It purchases only those receivables where the importer is found creditworthy. There is a network of factors in different countries, which helps in assessment of credit risk. Suppose a bank in India likes to buy receivables from an Indian exporter, it will assess the credit risk either with the help of the correspondent factor residing in the importer's country or through its own subsidiary, if residing in that country.

10.9.3 Forfaiting:

Forfaiting is similar as factoring in the sense that it is the forfaiting agency, and not the exporter, that bears the credit risk. But in many respects, forfaiting is different. Forfaiting is done usually in large and long-term transactions. When the exporter exports capital goods, the amount involved is normally big and as a result of which the importer takes a longer time to repay. What happens is that the importer writes a promissory note to the exporter for a period ranging usually from three to seven years and the exporter sells that promissory not without recourse to the bank. This sale of promissory note is known as forfaiting.

The forfaiting transaction is normally covered by a guarantee from the importer's bank or by L/C issued by the importer's bank. This minimizes the credit risk and helps the forfaiting agencies to forfait. Again, when the amount involved is quite large, a syndicate of forfaiting agencies buys the promissory note. Forfaiting facilities are available to an exporter for a single shipment or for a series of shipment. But the rate of discount varies from one shipment to another depending upon the risk involved. The risk in turn depends upon the credit period, distance of the shipment, nature of trade and contractual terms, political and economic conditions prevailing in the importing country etc.

In India, the sole agency for forfaiting has been the Export-Import (Exim) Bank of India, although since the announcement of the monetary policy in October 1997, banks are allowed to do forfaiting. The Exim Bank collaborates with foreign forfaiting agencies while doing this business. At the maturity, the bill is collected through the foreign forfaiting agency.

10.10 SUMMARY

The international financing decision has several dimensions, which must be weighted against each other before choosing a particular mode of funding. The all-in cost of funding and the various risks remain the guiding principles but regulatory issues and accessibility often take precedence over cost and risk considerations. Foreign trade documentation helps in minimizing non-completion risk and exchange rate risk as well as facilitates payment. The major documents are letter of credit, draft and bill of lading supplemented by some additional documents. Payments in international trade are made through different modes. In some cases, payment is made in advance. But normally, it is made through draft under the very framework of the terms of the letter of credit. In the case of consignment sale, it is only after the sale of the goods by the importer that the payments are made. The open account is found in the case of the credit sales.

In majority of cases, the exporters and importers need financial assistance for effecting trade. The banks have a significant role in this context. They provide short-term credit-both pre-shipment credit and post-shipment credit, medium-term credit in the form of buyer credit and supplier credit, and credit under the duty drawback scheme. Again, the exporters are found practicing factoring and forfaiting normally with banks. Moreover, counter-trade is also a means to finance import.

10.11 KEY WORDS:

Forfaiting: a form of medium term non-recourse export financing which involves a series of avalled time drafts.
Bill of Lading (B/L): it is a document issued by a shipper to show the details of merchandise that is to be transported.
Letter of Credit (L/C): an irrevocable guarantee from a bank that a seller's credit to a buyer will be honored provided the seller fulfils her or his part of a specified agreement, such as the delivery of goods on time and in good condition.
Political risk: uncertainty surrounding payment from abroad or assets held abroad because of political events.
Financial Risk: the risk of not being able to cover fixed financial costs. The use of debt exposes the ordinary shareholders to financial risk.
Factoring: it is a sale of accounts receivables to a factor who charges a commission, bears the credit risk associated with the accounts receivable.

10.12 SELF-ASSESSMENT QUESTIONS

1. How does one evaluate the financial and political risk of a project?

2. What do you understand by project finance?

3. What is the importance of project finance for enterprises?

4. Discuss participants in international project finance?

5. What are the elements of import and export transactions?

6. What are the important methods in international trade?

10.13 FURTHER READINGS:

1. Citibank (1991), An Introduction of letters of Credit, New York.

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R S R

LESSON 11

INTERNATIONAL INVENTORY MANAGEMENT

11.0 Objectives

After reading this lesson, you should be able to:

- Discuss the need for inventory management;
- Identify the costs of Inventory Management.
- Techniques and policies of inventory management.
- Highlight the inventory management practices.

Structure

11.1 INTRODUCTION

When an international firm possesses any specific technology and decides to begin operation, it needs to follow a sound operations strategy so as to enjoy competitive advantage. The operations strategy in a manufacturing firm involves many decisions. The

most important among them are concerned with location for production, management of inventory, sourcing of inputs and the international logistics including transport, packing and storage. The purpose of these decisions is to minimize the cost of production and to ensure production flexibility and market responsiveness. However, if a firm provides services, the strategy would be slightly different.

By inventory we mean the stock of materials, work-in-process or finished goods held to facilitate the production process by both ensuring that supplies are at hand when needed and allowing a continuous rate of production. Inventory accounts for the biggest share of the current assets. At the same time, it is the least liquid. This is why its management deserves sufficient care. To some extent, the management of inventory in an international firm is similar as in case of a domestic firm. But some additional factors are important in the case of an international firm. An international firm has to maintain inventory simultaneously in different countries. Transit time is quite longer. Customs procedures are quite lengthy. Political risk along with exchange rate risk is there. Based on these problems, there are some deviations from the simple norm of inventory management, which is practiced in a domestic firm. These deviations are now explained some length.

11.2 RELEVANCE OF ECONOMIC ORDER QUANTITY

The economic order quantity (EOQ) is the optimal size of inventory that a firm orders at a particular point of time. The readers are suggested to consult any book on corporate finance where they will find explanation of EOQ and the details about its calculation. However, it may be pointed out here that it is that quantity of order where the sum of the ordering cost and the carrying cost of inventory is the minimum. With the growth in the size of order, the number of orders in a particular period of time gets fewer and the ordering cost reduces. But, on the other hand, the carrying cost increases. Thus to arrive at the EOQ, the finance manager has to trade-off between the carrying cost and the ordering cost. The trade-off is complete where the sum of these two costs is the minimum.

The domestic firms adhere to this norm strictly. But the international firms possess normally a bigger stock than the EOQ, which is often known as stockpiling. The different units of a firm get a significant part of their inputs from sister units located in other countries. This is more common in a vertical set-up. In such cases, political risk and the exchange rate risk cannot be observed be overlooked completely. If there is political disturbance, there will be obstruction in the import. If the currency of the importing country depreciates, the imports will turn costlier. Thus in order to avoid this problem, stockpiling is favored.

However, stockpiling cannot be done indefinitely. The firm will have to decide against stockpiling if the cumulative carrying cost exceeds the expected increase in the price of the input on account of changes in the exchange rate. Nevertheless, if the probability of interruption in supply is very high, the firm may go for stockpiling even if it is not justified on the ground of higher cost.

11.3 NEED FOR INVENTORY MANAGEMENT

Inventory in the form of raw materials, work in process, or finished goods is held:

(a) To facilitate the production process by both ensuring that supplies are at hand when needed and allowing a more even rate of production, and

(b) To make certain that goods are available for delivery at the time of sale.

Although, conceptually, the inventory management problems faced by multinational firms are not unique, they may be exaggerated in the case of foreign operations. For instance, MNCs typically find it more difficult to control their overseas inventory and realize inventory objectives. There are a variety of reasons:

(i) Long and variable transit times if ocean transportation is used,
(ii) Lengthy customs proceedings,
(iii) Dock strikes,
(iv) Import controls,
(v) Higher duties,
(vi) Supply disruption, and
(vii) Anticipated changes in currency values.

11.4 PROTECTIVE MEASURES AGAINST INFLATION

Many foreign affiliates operate under inflationary economic conditions. Thus, it is important for multinational companies to determine the effects of an increasing local price level or devaluation on their inventory management policies. The type of inventory normally stocked by subsidiaries is of importance to this decision. Some subsidiaries rely heavily on imported inventories, while other subsidiaries depend heavily upon locally acquired inventories. Some other subsidiaries may rely almost equally on imported and locally acquired inventories.

If a subsidiary relies heavily on imported goods, it should seek to build up its inventory of supplies, equipment, and components in advance of an expected devaluation. This is because devaluation at a later date effectively increases the costs of imported goods. For example, if the host country should declare a ten percent devaluation of its currency in relation to the dollar, the subsidiary should pay ten percent more local currency for the same amount of imported goods from the United States. On the other hand, if a subsidiary depends heavily upon locally purchased goods, it should seek to minimize its inventory of supplies, equipment, and components. This is because devaluation at a later date effectively reduces the dollar value of inventories acquired locally. If inventories were translated at current rather than historical exchange rates, a ten percent devaluation of the local currency against the dollar would reduce the dollar value of its inventory by ten percent.

Finally, if a subsidiary relies almost equally on imported inventories and locally purchased inventories, it should seek to reduce its locally acquired inventories and to increase its imported inventories in advance of an expected devaluation. However, if

accurate forecasts of devaluation are not possible, the company should maintain the same amount of imported goods and locally purchased goods to avoid foreign exchange risks. This is because devaluation would affect both types of inventories equally and thus the subsidiary would experience neither a gain nor a loss.

11.5 ISSUES IN INVENTORY MANAGEMENT

Multinational firms based in different countries compete for the same global export markets. Therefore, it is essential that they offer attractive credit terms to potential customers. Increasingly, however, the maturity and saturation of developed markets is forcing MNCs to maintain and increase revenues by exporting and selling a higher percentage of their output to developing countries. Given the risks associated with the latter group of buyers, as partly evidenced by their lack of a major (hard) currency, the MNC must use a variety of tools to protect such revenues. In addition to the use of hedging and various asset and liability adjustments, MNCs should seek the backing of their respective governments in both identifying target markets and extending credit. Multinationals based in a number of western European nations and those based in Japan currently benefit from extensive involvement of government agencies that provide them with the needed service and financial support. For U.S.-based MNCs, government agencies such as the Export-Import Bank currently do not provide a comparable level of support.

In terms of inventory management, MNCs must consider a number of factors related to both economics and politics. In addition to maintaining the appropriate level of inventory in various locations around the world, a multinational firm is compelled to deal with exchange rate fluctuations, tariffs, non-tariff barriers, and integration schemes such as the EU, and other rules and regulations. Politically, inventories could be subjected to wars, expropriations, blockages, and other forms of government intervention.

11.6 FACILITIES LOCATION AND INVENTORY CONTROL

Many U.S. companies have eschewed domestic manufacturing for offshore production to take advantage of both low-wage labor and a grab bag of tax holiday, low-interest loans, and other government largess. But a number of firms have found that low manufacturing cost is not everything. A side from the strategic advantages associated with U.S. production, such as maintaining close contact with domestic customers, onshore manufacturing allows for a more efficient use of capital. In particular, because of the delays in international shipment of goods and potential supply disruptions, firms producing abroad typically hold larger work-in-process and finished goods inventories. The result is higher inventory-carrying costs.

11.7 ADVANCE INVENTORY PURCHASES

In many developing countries, forward contracts for foreign currency are limited in availability or are nonexistent. In addition, restrictions often preclude free remittances, making it difficult, if not impossible, to convert excess funds into a hard currency. One means of hedging is to engage in anticipatory purchases of goods, especially imported items. The

trade-off involves owning goods for which local currency prices may be increased, thereby maintaining the dollar value of the asset even if devaluation occurs, versus forgoing the return on local money market investments.

For example, suppose that Volkswagen do Brazil is trying to decide how many month' worth of components to carry in inventory. The present price of a component is DM 100, and this price is rising at the rate of 0.5 percent monthly. The Deutsche mark holding cost is estimated at 1 percent monthly, including insurance, warehousing, and spoilage, but excluding the opportunity cost of funds. Under these circumstances, where holding costs exceed anticipated cost increases by 0.5 percent monthly, Volkswagen should maintain the minimum parts inventory necessary to achieve its targeted output in Brazil.

Assume now that Volkswagen (VW) has excess cruzeiro balances in Brazil on which it is earning a nominal monthly rate of 2 percent. However, under Brazil's system of minidevaluation, the cruzeiro is expected to devalue against the Deutsche mark by 3 percent in each of the next three months, 2 percent in the fourth month, and 1 percent thereafter. Since other investment opportunities are limited or nonexistent because of currency and financial market controls, VW's opportunity cost of funds in Deutsche marks for the next six months, month by month, equals

Month	Opportunity cost Of Funds (%)
1	-1
2	-1
3	-1
4	0
5	1
6	1

Adding this opportunity cost of funds to the previously given monthly holding costs of 1 percent yields the total monthly individual and cumulative DM costs of carrying inventory for the next six months.

Beginning Month	Total Monthly Carrying Cost (%)	Cumulative Carrying Cost (5 months)	Cumulative price Increase (%)
1	0	0	0.0
2	0	0	0.5
3	0	0	1.0
4	1	1	1.5
5	2	3	2.0
6	3	5	2.5

Based on the cumulative carrying costs and prices increases, it is now apparent that the existence of anticipated cruzeiro devaluations, unmatched by correspondingly higher nominal interest rates – that is, the international Fisher effect is not expected to hold- should lead VW do Brazil to hedge a portion of its cash balances by purchasing four months' worth of inventory at today's prices. In other words, it will pay VW to purchase this amount of inventory in advance in order to minimize losses in the real value of its cruzeiro cash balances.

11.8 INVENTORY STOCK PILING

Because of long delivery lead times, the often-limited availability of transport for economically sized shipments, and currency restrictions, the problem of supply failure of particular importance for any firm that is dependent on foreign sources. These conditions may make the knowledge and execution of an optimal stocking policy, under a threat of a disruption to supply, more critical in the MNC than in the firm that purchases domestically.

The traditional response to such risks has been advance purchases. Holding large amounts of inventory can be quite expensive, though. In fact, the high cost of inventory stockpiling- including financing, insurance, storage, and obsolescence- has led many companies to identify low inventories with effective management. In contrast, production and sales managers typically desire a relatively large inventory, particularly when a cutoff in supply is anticipated.

Some firms do not charge their manager's interest on the money tied up in inventory. A danger is that managers in these companies may take advantage of this situation by stockpiling sufficient quantities of material or goods before a potential cutoff in order to have close to a zero stock-out probability. Such a policy, established without regard to the trade-offs involved, can be very costly. For example, "In Singapore possible curtailment in shipments of air conditioners led to such heavy advance ordering that for the next two years the market was completely saturated because the warehouses were full of air conditioners". Such an asymmetrical reward structure will distort the trade-off involved. The profit performances of those managers who are receiving the benefits of additional inventory on hand should be adjusted to reflect the added costs of stockpiling.

It is obvious that as the probability of disruption increase or as holding costs go down, more inventories should be ordered. Similarly, if the cost of stock-out rises or if future supplies are expected to be more expensive, it will pay to stockpile additional inventory. Conversely, if these parameters move in the opposite direction, fewer inventories should be stockpiled.

11.9 SHIFTING OF RE-ORDER POINT

The principal management suggests that the next lot of inventory is to be order when the existing stock comes down to the sum of safety level of stock and the lead time- both expressed in terms of number of days. Suppose the existing stock based on the present usage rate can last for 30 days. If the firm maintains a safety level of stock for five days and if the lead time, that is, the time elapsed between making an order and the arrival

of input is six days, the firm will make an order for the next lot only after 19 days of the arrival of the existing stock.

However, in the case of the international firms, the lead-time is larger as the different units are located far-off in different parts of the globe. Even if goods reach the port, there are a lot of customs formalities much earlier. Nevertheless, the decision regarding stockpiling or regarding re-order point depends on how much of the goods are to be imported and how much of them are locally available. Dependence on imports varies from one case to another, but it is definitely large for vertical set-up.

11.10 JUST-IN-TIME SYSTEM

Initially the Japanese firms and now many of the Western firms too have gone for just-in-time (JIT) system of inventory management. The very rationale of this system is that the input-raw material, spare parts and components- should reach the production process just in time so that carrying cost or holding cost is reduced t the minimum. However, in view of the complexity of the international production that is manifest in longer transit time, Vickery (1989) suggests for a few measures such as air transportation, adjustment in the expected lead time, etc. Nevertheless, the risk of not getting the desired inputs in time is always there. The firm should be very careful while adopting this method.

11.11 PRICING

Up to this point, our discussion has centered on preventive measures that multinational companies may take to reduce the risks associated with devaluation. Additional action can be taken in the area of pricing to reduce these risks. To illustrate, assume that 10 American-made radios have been imported into Korea which subsequently devalues its owns by 100 percent. The original exchange rate was KW50 per $1, the original cost was KW1,000 per radio, and the original selling price was KW1,500 per radio.

The Korean subsidiary has two basic policies with respect to price: (1) it can maintain the original price of its inventory in an effort to undercut competition and (2) it can increase the price of its inventory in order to earn all or part of the original dollar profit expected. The following Table shows the effects of both policies to the Korean subsidiary. Maintenance of the old price will result in a dollar loss of $50 on the sale of the 10 radios even if local figures indicate a profit of KW5,000. If the subsidiary increases its selling price to the dollar equivalent of the original selling price, it will earn a profit of $100. However, it is important to note that this assumes the Korean government does not maintain price controls. Although there are no price controls imposed by the Korean government, a price increase of the magnitude indicated in policy (2) would perhaps discourage some sales. If the price elasticity of demand for the merchandise is extremely high, the local market may not bear the higher price. Nevertheless, a certain level of price rise is required to prevent a deterioration of converted earnings.

TABLE- 11.1
Effect of Pricing on Profits

		(1) Maintain old price		(2) Adjust price	
Exchange rate		Korean Currency	Dollar (Current Value)	Korean Currency	Dollar (Current Value)
KW100	(now) Sold for	KW15,000	$150	KW30,000	$300
KW50	(now) Cost	KW10,000	$200	KW10,000	$200
	Profit	KW5,000	$50	KW20,000	$100

Another important question is whether the subsidiary should continue to import that type of merchandise. If local sales prices can be raised to cover the now higher dollar import prices, imports should continue. If not, imports should cease. Although the decision not to import the merchandise does not cause any translation loss, it may result in idle production capacity and an eventual operating loss due to the surrender of that particular foreign market. If possible, multinational companies should price their inventory goods in such a way that sales revenues include the sum of the increase in replacement cost of the inventory sold, plus the loss in real value of the monetary profit expected, plus the increased income taxes.

11.12 REDUCTION VULNERABILITY TO INFLATION AND DEVALUATION

When it becomes clear that inflation will continue and devaluation is imminent, it is advisable that managers consider the following adaptations. Cash balances should be minimized and foreign debts denominated in convertible currencies should be liquidated. When the host government appears likely to impose foreign exchange controls, remittances should be accelerated. If controls are already in effect, any excess funds should be reinvested in assets, which are not so vulnerable as cash. At the same time, the subsidiary must be careful at a sensitive time. Remittances through the black market may result at a sensitive time. Remittances through the black market may result in serious economic reprisals.

It is worthwhile to take all the normal procedures of speeding up the collection process and delaying payments. If the subsidiary needs funds on a shot-term basis, it should obtain them from local banks. However, under conditions of an imminent devaluation and/or a rapid increase in price levels, bank loans are usually not obtainable. It then becomes necessary to obtain local currency loans by factoring receivables or by pledging inventories. If the subsidiary has pre-established overdraft facilities with local banks, it is desirable to exhaust them before it secure its assets for loans. This is because overdraft facilities are normally the cheapest local credit available.

Unless local buyers will ignore higher prices and respond to credit offerings positively, accounts receivable should be reduced to the extent that local operating

circumstances permit. Investments in locally purchased goods should be minimized and investments in imported goods should be maximized under inflationary conditions. Such prepaid expenses as deposits on materials and insurance premiums should be kept as small as possible. Forward contracts may be necessary to protect the convertible currency value of funds between accumulation and transfer.

Thus, the international working capital management techniques are essentially similar to those employed domestically, but additional variables are involved. In domestic operations all transactions are subject to the same rules of movement, accumulation, and reinvestment, but these rules vary when these transactions occur across national boundaries. These additional variables include political tax, foreign exchange, and other economic constraints. To manage working capital from a global perspective, the multinational company must carefully evaluate various constraints such as foreign exchange rate fluctuations and base ultimate decisions about the transfer of funds on this evaluation. The company then must establish clear lines of accountability for asset deterioration and exchange losses. Finally, a workable system of controls must be developed to help measure the performance of working capital management.

11.13 INVENTORY MANAGEMENT PRACTICES IN AMAZON.COM

Amazon.com was one of the first online shopping sites launched in 1995. Since its inception, it has been consistently ranked as one of the best retail sites on the Internet and is regarded as the universal model for successful Internet retailing. In March 1998, Amazon was ranked among the top 20 Internet sites in almost all the more market surveys. By the end of 2002, Amazon had 22.3 million registered users on its site. By 2003, Amazon became the biggest book, music and video retailer on the Internet and offered more than 4.7 million books, videos, music CDs, DVDs, computer games and other products. Further, Amazon had the distinction of being the first e-commerce site to use collaborative filtering technology. Amazon's immediate business goal was to 'get big fast', which reflected the driving force behind the company's growth.

INVENTORY MANAGEMENT: When Bezos started his venture at hassle-free operations. He wanted to offer his customers a wide selection of books, but did not want to spend time and money on opening stores and warehouses and in dealing with the inventory. He, however, realized that the only way to satisfy customers and at the same time make sure that Amazon enjoyed the benefits of time and cost efficiency was to maintain its own warehouse. Building warehouses and operating them was a very tough decision for Bezos. Each warehouse cost him around $50 million and in order to get the money; Amazon issued $2billion as bonds.

In 1999, Amazon added six warehouses in Fernley, Nevada: Coffeyville, Kansas; Campbellsville, Kentucky; Lexington, Kentucky; McDonough, Georgia; and Grand Forks, North Dakota. On the whole, Amazon had ten warehouses. In the same year, Amazon increased its worldwide warehousing capacity from 300,000 square feet to over five million square feet. Since Amazon ordered books and other products from the warehouses

only after the customers had agreed to buy them, the return rate was only 0.25 percent compared to the return of 30 percent in may segments of the online retail industry.

Amazon's warehouses, which were a quarter mile long and 200, yards wide stored millions of books, CDs, toys and hardware. There were very well maintained and completely computerized. In fact, the number of lines of code used by Amazon's warehouses was the same as the number used by its Website. Whenever a customer placed an order, a series of automated events followed, which made inventory management easier.

When a customer ordered a book from Amazon, his invoice mentioned the title of the book followed by the barcode. This was a code of numbers such 3-4-5 which indicated the book's location in the warehouse. Computers sent signals to the workers' wireless receivers telling them which the items had to be picked and then verified the weight of each product.

The items taken from the shelves were place in large green crate, which contained the orders from different customers. When the crates got filled, they were matched with the order numbers to find out who would receive each item. Each customer's orders were placed in a separate cardboard box. Different wrappers were used to cover gift items. Most of the orders were shipped either through the United States Postal Service or through the United States Parcel Service, which were located close to Amazon's warehouses. Amazon had developed proprietary software and had trained some of its personnel to get books, which were out-of-print, or to get products that were hard-to-find, using the software. The software sent orders (Which the company could not cater to) to special orders groups for speedy delivery.

In the holiday season of 1999, Amazon was determined not to disappoint any customer who visited its site for his holiday shopping. Accordingly, Bezos decided to stock the stores with every possible item that customers were likely to buy. Right from the latest novel to the chartbuster movie of the season, he wanted everything to be stored to ensure that none of the customers logged out of the site, disappointed. Although the strategy adopted by him was appreciated, Bezos had to face a lot of problems too while trying to manage his large inventory. Bezos realized the importance of managing inventory in his company. He knew that a large number of goods piled on the shelves would reduce the profit margins as piled us goods represented unutilized cash which could be used elsewhere in his business. However, if fewer goods were stoked, it meant that some of the customers were bound to be disappointed. In order to overcome this tedious task of inventory management, the company decided to do things differently in the holiday season of 2000.

Amazon managed to reduce the size of its inventories even as the company offered more products on its site. This was made possible by managing the warehouses efficiently. Amazon made careful decisions about which products to buy and where to buy them. The company then had to decide which of the distribution centers it would send its product to and then know how to receive and track the product once it was in the warehouse. Amazon also decided to buy its books, CDs, videos etc. directly from the publishers instead of buying them from the distributors. Amazon maintained a good relationship with its vendors so that it could extract best deals from them. The company spent huge amounts on its infrastructure and technology between 1997 and 2000.

In order to manage the inventory, Amazon refined its software. The new software helped the company accommodate inventory as per the demand in different regions. For example, Amazon used its information to rearrange its warehouses in Delaware, Kansas, Kentucky, Nevada and North Dakota. It tried to place products, like CDs and CD players, which were generally purchased together, at one point. Amazon also tried to reduce its split shipments- the orders for multiple item from different warehouses. This step considerably reduced the inventory levels. Amazon used the software to estimate customer demand at a particular place, which considerably reduced the risk of buying too few or too many goods.

Amazon also tried to cut down its expenses. It decided to some of its routine activities so that it could concentrate better on its core activities. It partnered with other companies for shipping the inventory. So, while the partners shipped the items, Amazon leveraged on its e-commerce expertise. It revamped the layout of its warehouses making it easier for the company to locate and sort customer orders. By doing this, it managed to save all the expenses related to filling and shipping orders.

Improved inventory management helped Amazon record its first ever profit in the fourth quarter of 2001. After accumulating a deficit of $2.86 billion in the seven years since its launch in 1995, Amazon recorded a net profit of $5million in the fourth quarter of 2001. This profit was mainly attributed to its ability to reduce costs in stocking and shipping goods. Amazon had a sales record of $1.1 billion in the fourth quarter of 2001, which was a 15 percent increase over the sales recorded during the same period the previous year. In 2002, Amazon recorded sales of $3.93 billion, which was 26 percent higher than the sales of 2001 ($3.12 bn).

11.14 KEY WORDS

Capital Gain (or Loss): The difference between the current market value of an asset and the original cost of the asset, with the cost adjusted for any improvement or depreciation in the asset.

Day Order: A trading order for which the broker will attempt to fill the order only during the day on which it was entered.

Exchange Risk: The uncertainty in the return on a foreign financial asset owing to unpredictability regarding the rate at which the foreign currency can be exchanged into the investor's own currency.

Expected Rate of Inflation: The portion of inflation experienced over a given period of time that was anticipated by investors.

Inflation: The rate of change in a price index over a certain period of time, i.e., the percentage change in the purchasing power of a unit of currency over a certain period of time.

Risk: The uncertainty associated with the end-of-period value of an investment.

11.15 SUMMARY

Working capital is concerned with the operational aspect of a firm. Gross working capital is represented by current assets, while net working capital is represented by current assets minus current liabilities. As regards inventory management, international firms possess often-larger stocks than the principal of EOQ permits. This is due to political risk and the exchange risk inherent in the transaction of goods. These firms have also a different re-order point in view of longer lead-time. The overall efficiency of inventory management is extremely important for two reasons: (1) Inventories represent a significant segment of total assets for most business firms. (2) They are the least liquid of current assets and thus errors in inventory management are not quickly remedied.

Inventory management in the MNC involve the familiar cost-minimizing strategy of investing in these assets up to the point at which the marginal cost of extending another dollar of credit or purchasing one more unit of inventory is just equal to the additional expected benefits to be derived. These benefits accrue in the form of maintaining or increasing the value of other current assets- such as cash and marketable securities- increasing sales revenue, or reducing inventory stock-out costs.

We have also seen that most of the inventory management problems that arise internationally have close parallels in the purely domestic firm. Currency changes have effects that are similar to those of inflation, and supply disruptions are not unique to international business. The differences that do exist are more in degree than in kind.

11.16 SELF ASSESSMENT QUESTIONS

1. Do you justify stockpiling in respect of international inventory management?
2. Name the main factors responsible for greater lead-time in international inventory management.
3. Is inventory management in an international firm different from that in a domestic firm? Explain.

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LESSON 12

INTERNATIONAL RECEIVABLES MANAGEMENT

12.0 Objectives

After reading this lesson, you should be able to:

- discuss the benefits and costs of Accounts Receivables in International trade
- discuss the various types of accounts receivable transactions.
- Highlight the business transaction policies.

Structure

12.1 INTRODUCTION

Managing short-term international financial transactions is the process of planning and controlling the level and mix of current assets of the firm as well as financing of these assets. It involves the use of certain prescribed aids such as the risk-return tradeoff, credit standards, and inventory models. From an international perspective, the working

capital management is very complex because of different laws among countries that pertain to cross-border transactions.

The management of working capital can be viewed as either a static responsibility or a dynamic process. The static approach focuses on individual processes such as management of cash, accounts receivable, and inventories. The important aspect of this approach is how to determine appropriate levels of cash balances, accounts receivable, and inventories. On the other hand, the dynamic approach focuses on transfers of liquid funds from geographic locations or currency to another. These transfers involve many constraints and uncertainties.

Political constraints can block dividend repatriation or other forms of fund remittances. This blockage occurs because of restrictions on the international movement of funds and other exchange controls. Tax constraints limit the free flow of affiliate funds to the parent or to sister affiliates. These may occur because higher taxes on all corporate earnings or extra taxes on dividends may be imposed to curb inflation. Foreign exchange constraints are a third limiting factor on fund flows from one country to another. International fund flow involves foreign exchange transaction costs and exchange rate fluctuations. Other economic factors such as inflation and interest rates also have an important impact on the international mobility of corporate funds.

12.2. MANAGEMENT OF CURRENT ASSESTS

The objective of working capital management is to determine the optimal amount of investment in various current asset accounts. The optimal amount of investment in current assets is the level of current asset holdings that maximizes return on investment. The basic objectives of working capital are to provide various current assets and short-term credit necessary to support the anticipated sales by minimizing the investment in current assets. Because multinational companies operate across national boarders, hey face political, tax, foreign exchange, and other economic constraints. To achieve the predetermined objective of working capital management, the financial manager must give special consideration to these constraints.

Management of short-term assets and liabilities-cash, investments, inventories, receivables, payables- is an important part of a finance manager's job. Funds flow continually in and out of a corporation as goods are sold, receivables are collected, short-term borrowings are availed of, payables are settled and short-term investments are made. The essence of short-term financial management can be stated as:

- Minimize the working capital needs consistent with other policies (e.g. granting credit to boost-sales, maintain inventories to provide a desired level of customer service etc.)
- Raise short-term funds at the minimum possible cost and deploy short-term cash surpluses at maximum possible rate of return consistent with the firm's preferences and liquidity needs.

This lesson will focus its attention on ***receivables management*** in a global firm at the international level.

12.2 RECEIVABLES MANAGEMENT

The firms sell goods on credit to both local and international customers. They expect the investment in receivables to be profitable either by expanding sale volumes or by retaining the sales that otherwise would have been lost because of competition. Companies also gain by financing charges. All the firms need to scrutinize credit terms because there is an incentive to the customer to defer payments. In economies experiencing inflation, the customers liquidate their debt with less valuable money as the value of the money declines due to inflation. Credit standards are often relaxed as compared to home market, especially in countries lacking alternative sources of credit for small customers. To be competitive multinational corporations (MNCs) may have to relax credit terms. Many companies, reward higher sales more than t penalize an increased investment in account receivables. The receivables can only be managed if finance and marketing co-ordinate to achieve higher targets of sales and realization of accounts receivables. An incentive may be attached for sales collection. Saving interest cost of credit may compensate the incentive.

12.3 CREDIT EXTENSION

The amount of Receivables held and the quality of these Receivables Accounts are a function of the firm's credit and collection policies. Economic conditions, money market conditions, credit policies of banks are the external factors, which influence the accounts receivable. The firm's credit and collection policies are partly determined by the nature of the commodities produced or dealt with in the market for such commodities and the comparable practices of the competitors.

As per the credit policy, the variables to be considered are the quality of trade accounts, length of the credit period, cash discount and any other special terms and the collection progress of the firm. Credit policy influences and is influenced by sales. In general, a liberal credit policy can increase sales, but may lead to more bad and doubtful debts. Thus the quality of accounts be better by a selective credit policy but may reduce the sales. There is a trade off between profitability and Risk. Liberal credit policy may lead to bad and doubtful debts and increase risk.

Credit standards determine the quality for assets. If the credit standards are relaxed, clerical and servicing work will increase and costs will rise. Sometimes there is a probability of rise in bad debts. For increasing sales marginally, there may be need for relaxing the credit standards but profitability of additional sales has to be weighed against the additional costs of servicing, collection etc. Extension of credit sales may be worthwhile if there is idle capacity and fixed costs do not change or any additional production and sales of the product provided of course additional sales at least cover the variable costs on a net basis.

12.3.1 Credit Standards:

The major decision regarding the receivables management is the determination of the credit period and credit terms. The credit policy of a firm has to weigh the trade off between profitability on additional sales and opportunity cost of increased investments in

receivables. The liberalization of credit standards may increase sales, receivables but may lower quality and at the same time may affect the level of inventories. With increased sales due to liberal credit policy increased inventory has to be maintained. Sometimes discounts may be given for cash sales, which will reduce profitability. But the same discount given to accounts receivables for early payment will not affect sales but reduce collection period and the cost of credit to the company goes down. In actual practice, change in credit policy is difficult, unless it is well planned out and is related to the level of production and capacity. If the production is reaching the capacity, credit policy can be tightened and quality standards are to be increased. If there is a large unused capacity, credit policy can be eased to increase sales. Some credit sales may be lead to lowering of quality of accounts receivables. Another factor which influences the credit policy changes is the composition of total costs (fixed costs + variable costs) and the marginal costs. If at least marginal costs and variable costs can be covered despite of the lowering of credit policy it becomes worthwhile to lower credit standards.

Easing of credit policy or change in credit standards may no doubt attract additional sales of new customers but old sales and old customers would also demand similar terms. This would mean, there would be a general slowing down of the collection period, increased bad debts and defaults.

12.3.2 Cost-Benefit Analysis:

In granting lower credit standards one has to take into account profitability criteria, seasonal factors in demand with a constant rate of production and changes in market conditions through recession in general or through actions of competitors. Firstly, the company has to compare the profitability of additional sales with the required return on the additional investment in receivables before giving more liberal credit terms. To stimulate demand in the case of seasonal goods, carrying costs of inventory can be brought down, by giving credits for enlarged periods for payment to come after the seasonal slack. Such seasonal dating is advisable of if the warehousing costs plus the required rate of return on investment in inventory exceeds the required rate of return on the additional receivables.

Another factor considered in credit policy changes is the level of collection expenditure. If after taking into account the costs due to enlarged credit period, and the discounts offered for earlier payments, it may be advisable to change the credit policy, if the marginal gains due to enlarged sales are equal to marginal costs. The additional expenses of collection of these lower quality accounts, emerging out of easing of credit terms have to be added to the marginal costs to compare with the expected marginal gains. In sum, the policy change will be warranted, if its impact of profits is positive, for which some research and sensitivity analysis are necessary. In particular, credit standing of the customers and their credit rating has to be considered to avoid default risk. Otherwise Default risk may swallow any expected additional gains from additional receivables. If there is incremental profitability on additional sales due to liberalization of credit policy, it is worthwhile liberalizing. On the additional sales, additional revenue from these sales has to be adjusted for bad debt losses and investment cost of additional receivables for extended period and additional collection charges, if any, to arrive at net incremental profitability.

12.3.3 Collection Charges:

Collection charges depend upon the collection procedure such as collection through telephone, mailing, faxing the invoice, reminders on or prior to due date or handling over the collection work to an outside agency. In some cases of sticky accounts, hardly 50% of the due is received because of the above incidental and consequential charges. In case cash discounts are offered for prompt payment of receivables, this is a cost item to be added in collection expenditure. It is found that total profits of the firm will increase at a diminishing rate with stricter controls on credit standards up to a point, after which they decline. Hence it is not always advantageous for the company to observe stricter credit standards. Similarly it is not always advisable to liberalize credit as net profits increase only upto a point and then decrease.

The optimal point with respect to credit standards is set by a number of variables. There is a point up to which credit terms can be liberalized, and there is similarly another point up to which credit terms can be made stricter. These points set the limits for policy decisions and can be estimated with some difficulty for each firm separately, depending on a number of factors, both internal and external to the firm.

12.3.4 Credit Analysis:

The line of credit allowed to any customer is based on some scientific methods of assessment of credit worthiness of the customer. In evaluating a credit applicant, the credit analyst obtains all financial and other information regarding the customer applicant and after a thorough analysis and assessment, reaches a credit decision. As information is costly and time consuming the cost of securing additional information has to be weighed against expected benefits. For new account such analysis and assessment is more elaborate and comprehensive. For an old account, only additional and latest information on the customer is called for to decide whether to accept the order or not. The overall credit limits of all applicants and the individual limits are then decided in order to plan for an optimum level of credit limits and Receivables accounts for the firm.

12.3.5 Impact of Credit Decision:

The credit decision is a matter of importance for the financial position and liquidity of the firm. Many firms use computer aided analysis of the credit standing of the customer applicant. The computer through proper programming can provide data on applicant's history, past record of payments on schedule, current status, present financial position and future expected financial standing and the computer can apply a consistent framework and criteria for credit analysis and helping the credit manager with a decision, whether to give credit and if so, the extent up to which credit can be granted. The computer or the credit manager has to go through a sequential investigation process, before making a credit decision. Some of the exercises, which are repetitive, are processed through the computer and the application of human talent has to be the final deciding factor and this is left to the Credit manager on whose efficiency and expertise the fortunes of the firm depend to an extent, particularly with respect to the liquidity of the firm. The Macro decision of the overall level permissible for Receivables, the total credit limits, credit terms, standards to be applied are all thus set out by the credit manager.

12.4 ACCOUNTS RECEIVABLES FINANCING

In some cases, the exporter of goods may be willing to ship goods to the importer without an assurance of payment from a bank. This could take the form of an open account shipment or a time draft. Prior to shipment, the exporter should have conducted its own credit check on the importer to determine creditworthiness. If the exporter is willing to wait for payment, it will extend to the buyer.

If the exporter needs immediately, it may require financing from a bank. In what is referred to as accounts receivable financing**,** the bank will provide a loan to the exporter secured by an assignment of the account receivable. The bank's loan is made to the exporter based on its creditworthiness. In the event the buyer fails to pay the exporter for whatever reason, the exporter is still responsible for repaying the bank.

Accounts receivable financing involves additional risks, such as government restrictions and exchange controls that may prevent the buyer from paying the exporter. As a result, the loan rate is often higher than domestic accounts receivable financing. The length of a financing term is usually one to six months. To mitigate the additional risk of a foreign receivable, exporters and banks often require export credit insurance before financing foreign receivables.

12.5 BENEFITS AND COSTS OF RECEIVABLES

Greater sale volume is the benefit of credit sale. It is because customers get more time to pay for the goods. But, on the other hand, there are costs involved with the credit sale that need to be balanced against the benefits.

- The first is the financing cost, that is, the interest on the funds tagged with receivables. The higher the interest rate or the longer the period of credit, the higher is the cost.
- The second is the administrative cost incurred on maintaining office for such sales. It includes the cost of maintaining records.
- The third is the collection cost, which is incurred especially when the bills are not paid in time. Such costs move up with gradual liberalization of credit.
- The fourth is the bad debt loss when the sale proceeds are not realized in spite of best efforts.
- The fifth is the foreign exchange loss that arises if exchange rate changes against the exporter during the period of credit.

Thus, the appropriate policy of managing account receivables should be that a firm extends credit only up to a point where the marginal profits on its increased sale are equal to the marginal cost of receivables. Since the benefit and cost are dependent on the terms of credit, a firm has to determine optimal terms of credit. In order to determine how much liberal the credit terms should be, it prepares a pro forma income statement based on different terms, and adopts a particular term where the net profit is the highest.

12.6 TYPES OF CREDIT TRANSACTIONS

Multinational accounts two separate types of transactions create receivable: sales to outside the corporate group and intra-company sales. These two types of transactions must be considered separately because their economic consequences are different. One truly unique problem area of multinational accounts receivable management has to do with risk of currency value changes. The accounts receivable manager should understand this risk and take all necessary actions to minimize such a risk.

12.6.1 Sales to Independent Customers:

Management of accounts receivable from independent buyers involves two types of decision: the denomination of currency to be used for payments and the terms of payment. Domestic sales are always denominated in the local currency. In contrast, export sales can be denominated in the currency of the exporter, the currency of the importer, or a third country currency. The exporter would prefer to price and to invoice in the strongest currency while the importer would prefer to pay in the weakest currency. Competition or custom will frequently resolve the problem, but the usual result is a tradeoff between the term of payment and the denomination of currency. For example, the exporter may grant a longer credit period in exchange for the importer's promise to pay its purchase in a hard currency.

Many factors affect the terms of payment, but perhaps one of the most important is the strength of the currency denominated in the transaction. If payments are to be made in a soft currency, accounts receivable should be collected as quickly as possible in order to minimize the possibility of exchange losses between the sale date and the collection date. Sales made in a hard currency may be permitted o remain outstanding, somewhat longer. If the devaluation of its home currency is imminent, the exporter might want to encourage slow payment of its hard currency receivables.

12.6.2 Intra-company Customers:

Intra-company sales differ from sales to independent customers in that little concern is given to credit standing and that the timing of the payments may depend upon the company's desire to allocate resources rather than normal payment schedules. Such sales are necessary for many reasons. Subsidiaries produce different products and often sell to each other. Like the location of cash balances, the location of intra-company receivable and their amount are a policy problem of the multinational company in the allocation of its resources on a global basis. If the parent company desires to transfer funds to its affiliate, it may do so by having the affiliate delay the payment of intra-company purchases.

The intra-company sales usually cross the national boundaries, and hence, the governments are concerned about such sales. If subsidiaries are located in countries whose currencies are likely to devalue or to float downward, the parent company may instruct its subsidiaries to pay their purchases more quickly. In contrast, if subsidiaries are located in countries whose currencies are expected to up value or to float upward, the parent company may instruct its subsidiaries to delay payments. It is important to note that early payments

and later payments in conjunction with intra-company sales are feasible only when the parent company owns 100 per cent of its various affiliates.

12.7 CURRENCY VALUE PROBLEMS

Accounts receivable risks result from changes in exchange rates between the sales date and the collection date. There are several ways that the accounts receivable manager may be able to reduce these risks. The seller may require that all payments are to be made in hard currencies. This requirement would assure the seller that payments are to be made in currencies likely to face little or no devaluation on the foreign exchange market. In certain instances, the multinational company refuses credit sales denominated in foreign currencies altogether. It is often possible for multinational companies to buy currency credit insurance.

The use of factor is another way to minimize accounts receivable risks form changes in exchange rates between the sale date and the collection date. Factoring is a process whereby a company sells its accounts receivable on a non-recourse basis. Non-recourse means that the factor takes the loss if the customers of its client do not pay their accounts. In addition to risk bearing, the factor performs a number of additional services such as credit checking, book- keeping, and the collection of accounts.

12.8 DIFFERENT APPROACHES TO ACCOUNTING SYSTEM

Accounting systems differ widely among countries. In a multinational group, accounting systems of its foreign subsidiaries should conform to those of the parent. This conformity is a particularly very useful in drawing a consolidated balance sheet. This apart, a uniform accounting system is particularly useful in financial decision-making process.

There are four principal approaches to accounting as per Choi and Mueller:

12.8.1 Micro-economic approach.

This approach aims at maintaining the monetary capita/invested capital of the enterprise constant in real terms. The countries, employing this approach, like Netherlands, use the cost of replacement as the basis of accounting during the period of high inflation.

12.8.2 Macro-economic approach.

This approach, used in Sweden, considers that the accounting system should help the state to manage the economy and, therefore, the accounting system of business firms should be in tune with the needs of economic planning.

12.8.3 Independent approach.

This approach (also referred to pragmatic approach) requires the enterprise to establish its accounts in a manner that makes its management easy and a simple affair. It should also aim at providing information to investors so that they can judge the financial situation of the enterprise without difficulties. Such a system is prevalent in Anglo-Saxon countries.

12.8.4 Uniform Accounting approach.

This approach warrants the use of a uniform terminology and identical classification of the various transactions for all enterprises. The virtue of the method is that it facilitates inter-firm comparisons. This approach is also very helpful in establishing national accounting. This is the approach adopted by countries like France and Germany, etc.

12.9 CONSOLIDATION OF ACCOUNTS

12.9.1 United States of America:

Floating exchange rates as well as the growing importance of multinational firms (and their growing numbers too) had made the USA re-examine in 1982 the accounting rules concerning the exchange gains and losses. The norm FASB 52 defines that currency is "functional" for a foreign entity in which the said entity effects most of its operations. For the purpose, operations are classified into two categories.

(a) Operations of the subsidiaries:

As a general rule these subsidiaries have the currency of the country in which they are located as their "functional" currency. The items of assets and liabilities of the balance sheet as well as those related to financial results should be converted into functional currency at the dollar rate in vogue at the time of close of the accounts. In the case of variation of the rate of the dollar between two exercises, exchange gains or losses that result from it are called consolidated (or translation) adjustments. Since these changes do not reflect the expected cash flows, they are not included in the published profits. They are adjusted in the consolidation capital. They will be actually realized only when the foreign subsidiary is closed down or sold out.

(b) Operations of the subsidiaries, which represent abroad an office of the parent:

If the operations like place in the currency of the parent, there is no need for conversion. Nevertheless, adjustments will be required if the operations are done in a foreign currency (say sales). The exchange gains and losses resulting from these transactions have an immediate effect on the cash flow of the company and form a part of the published net profit. The gains and losses arising out of such transactions are referred to as transaction effects.

The transaction effects are significant in the case of a foreign subsidiary whose primary function is to distribute the products of the parent in the foreign country and whose accounts are maintained in local currencies.

12.9.2 France:

Trading companies are required to publish every year consolidation accounts as well as report on the management of the group with effect from the period they started controlling either exclusively or jointly one or several other enterprises or if the group exercised a notable influence on them. However, the following enterprises are excluded from compliance with these requirements:

- Enterprise which themselves are under the control of a company that includes them in the consolidated and published accounts;
- When the total represented by the company and the enterprise under its control is smaller than a certain size.

If the control exercised by the company is exclusive, the accounts are consolidated by global integration. In the case of joint control, the consolidation is done by proportional integration. If the consolidating company exercises a notable influence the method of putting in equivalence is adopted.

12.10 SUMMARY

Working capital is concerned with the operational aspect of a firm. Gross working capital is represented by current assets, while net working capital is represented by current assets minus current liabilities. The objective of the working capital management is, among other things, to determine the optimal size of the current assets and to determine how current assets should be financed. In the case of international working capital management, a few complexities arise in view of proximity to international financial market, changes in exchange rate, tax rate differentials etc.

For management of receivables, the finance manger should create receivables only to the extent where marginal cost is equal to the marginal benefit. In the case of intra-firm sales, the size of receivables and timing of payment is not important. On the contrary, in the case of inter-firm sales, the currency of invoice and the terms of payments are important. Information given by the financial system of the groups is useful to managers, directors and enterprises as well as to the actual or potential investors. Methods of consolidation, which vary among countries, pose the problem of evaluation of shares of the multinational firms.

12.11 KEY WORDS

Active fund management: An investment approach that actively shifts funds either between asset classes or between individual securities.

Banker's acceptance: A time draft drawn on and accepted by a commercial bank.

Blocked funds: Cash flows generated by a foreign project that cannot be immediately repatriated to the parent firm because of capital flow restrictions imposed by the host government.

Factoring: Sale of accounts receivable balance to buyers (factors) that are willing and able to bear the costs and risks of credit and collections.

Foreign Direct Investment (FDI): The act of building productive capacity directly in a foreign country.

Forfaiting: A form of factoring in which large, medium to long-term receivables are sold to buyers (forfaiters) that are willing and able to bear the costs and risks of credit and collections.

Gross working capital: Total investment on current assets.

Net working capital: Excess of current assets investment over on current liabilities.

Repatriation: The act of remitting cash flows from a foreign affiliate to the parent firm.

Time draft: A draft that is payable on a specified future date.

Trade acceptance: A time drafts that drawn on and accepted by an importer.

12.12 SELF ASSESSMENT QUESTIONS

1. What should be the shape of optimal receivables policy?
2. Discuss the types of transactions in receivables management.
3. Write a brief note on the management of receivables of a global firm.

12.13 FURTHER READINGS

1. Soenen, L.A. (1986), International Cash Management: A study of practices of UK-based companies, Journal of Business Research, 345-354.

2. Smith, K.V.Ed. (1980), Readings in the Management of Working Capital, St. Paul (Minnesota), West Publication.

R S R

LESSON – 13

INTERNATIONAL CASH MANAGEMENT

Objectives:

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

- various techniques to optimize the cash flows;
- common complications in optimizing cash flows;
- strategies for short-term capital flows;
- hedging against foreign exchange risks and inflation risks;
- concept of centralized cash management in a global firm

Structure :

13.1 Introduction :

The term 'cash management' broadly means optimization of cash flows and investment of excess cash. International cash management is very complex because of different laws among countries that pertain to cross-border cash transfers. Financial managers need to understand the advantages and disadvantages of investing cash in foreign markets so that they can make international cash management decisions that maximize the value of the MNC. The ethos of international cash management can be traced to the ancient era more than two thousand years back. The genesis of the problem of international cash management lay, and still lies, in the absence of a truly international currency. Cash management can be considerably more complex because of the possibility of raising and deploying cash in many currencies, many locations and profit opportunities presented by imperfections in international money and foreign exchange markets.

Firms with multinational operations regularly deal in more than one currency, and hence the cost of foreign exchange transactions is an important factor in efficient cash management. Good cash management also encompasses investing excess funds at the most favorable rate and borrowing at the lowest rate when there is temporary cash storage.

13.2 Money Markets and Interest Parity - Revisited:

Working cash balances are held and borrowed in money market, which have tended to assume international dimensions. The criterion of money market efficiency leads to the interest parity theorem'. That is, the prevailing interest rate in any money market cannot be so much higher than that obtaining in any other money market as to exceed transaction costs. Because of these costs, the interest parity line may get transformed into a 'band of difference' within which investors, borrowers and interest arbitragers may be different.

The money market deals take the form of Eurodollars and Euro currencies. A Eurodollar deposit in a U.S. dollar denominated bank deposit outside the United States, even if it is made in the branch of an American bank, say Citibank, in London. Eurocurrency deposits are a wider term to cover other externally held currencies. So generalized, a Euro sterling deposit is a pound sterling deposit anywhere outside the U.K., say in Frankfurt, Paris, Zurich or even in New York. A sterling deposit in London is no more Eurocurrency than an American's deposit in a New York bank is a Eurodollar. The Eurocurrency market is also known as 'Offshore currency market.'

The interest rates applicable to borrowers of Eurodollars are based on the London Interbank Offered Rate (LIBOR). It is charged in interbank transactions and is the base rate for non-bank customers. The rate has operated in the nature of an average of the lending rates of size leading London lenders of Euro currencies. Borrowers are called upon to pay on LIBOR-plus basis, the extent of premium bearing an inverse relationship with the creditworthiness of the client. A floating interest rate is charged when the borrowing maturity goes beyond six months. The loan is rolled over on a six-monthly basis, the actual interest rate maintaining a certain distance above the current LIBOR.

The phenomenon of Petro-dollars recycling manifested itself after 1973 in the wake of oil price boom. Petrodollars accumulating with oil producing and Exporting countries had to be moved to those who needed these to pay for their imports. The cycling function fell largely to the lot of larger banks in London, New York, Paris, and other money centers.

OPEC deposits of petrodollars enabled major banks to make loans to purchasers of oil, many of them being non-oil-risk developing countries. In course of time, many banks came up for the task in the Persian Gulf region.

13.3 Short-term Cash Flows :

The financial instruments usually covered under this category are short-term government securities, bank deposits and currency, commercial paper, export loans and bankers' acceptances. The management of working capital has a direct influence on the amount and timing of cash flow working capital management and the management of cash flow are integrated.

Short-term capital flows are generally classified into the following three categories :

1) Trade capital,

2) Flows on a Covered Basis, and

3) Speculative Flows.

Trade Capital is represented by short-term claims on foreigners for goods / services exported. If an exporter gets paid immediately, demand deposits go up with banks abroad. In case the exporter extends credit, accounts receivable or banker's acceptances witness an increase. The quantum of such receivables is a function of the 'Volume of trade' and the 'period of credit' allowed by the exporter. The period of 90 days can be described as the international debtor's ratio. Terms of credit may vary with the relative bargaining power of the two parties / countries.

Flows on a covered basis (Arbitrage) are represented by capital movements motivated by interest differentials. For example, as part of India's economic reforms in 1991, the rate of interest on term deposits for 46 days with commercial banks was raised as high as 11%. The benefits emerging from higher interest rates in some other country has to be weighed against the possible risks, uncertainties and other physical, procedural or notional barriers. If there is a 'continuous' foreign exchange market, the investor may like to cover any possible loss, arising out of exchange rate fluctuations by an offsetting transaction in the future / forward market. A U.S firm investing in Germany for three months may, simultaneously, sell requisite quantum of DM for dollars to be delivered at the end of three months at a prescribed exchanged rate.

A speculative flow occurs when capital movements are deliberately linked with fluctuations in foreign exchange rates. The speculative flows can be subdivided into the following four categories.

a) Flows in anticipation of higher yield in another currency without foreign exchange coverage.

b) Flows to take advantage of temporary advantage of temporary fluctuations in a foreign exchange rate, which is likely to go back to its normal level.

c) Capital flows in anticipation of a lasting change in the exchange rate.

d) Speculative flows, even though associated with trade, are of a leads-and-lags character.

In actual practice, it may not be so easy to identify the nature of short-term capital movements; that is, whether a particular flow of funds is attached to trade or to other considerations.

13.4 Complications in the Management of Cash balance holdings :

Even though the basic principle to guide the management of cash balance holdings in international working capital management is broadly, similar to the domestic situations, the optimization of cash flow is more complex due to the following :

i) **Company - Related Characteristics:** Optimizing cash flow can become complicated, due to characteristics of the MNC. If one of the subsidiaries delays payments to other subsidiaries for supplies received, the other subsidiaries may be forced to borrow until the payments arrive.

ii) **Government Restrictions :** The cash flow optimization policy can be disrupted by the government restrictions. Some governments prohibit the use of a netting system. Some countries periodically prevent cash from leaving the country, thereby prevent net payments from being made countries in Latin America commonly impose restrictions that effect an MNC's cash flows.

iii) **Banking Systems Characteristics :** The abilities of banks to facilitate cash transfers for MNCs vary among countries. Banks in the United States are advanced in this field, but banks in some other countries do not offer services. MNCs prefer some form of zero-balance account, where excess funds can be used to make payments but earn interest until they are used. Without full use of banking resources and information international cash management is limited in its effectiveness. As time passes and a more uniform global banking system emerges, these problems may be alleviated.

Besides the above, the international finance function would be more complex on account of the following :

i) Different and frequently changing fax laws of various governments.

ii) Day-to-day adjustments in foreign exchange rates.

iii) Different rates of inflation in various countries from time to time.

iv) Structural and functional differences among different money and capital markets.

13.5 Management of Cash balances - Hedging against Risks :

As noted earlier, the objectives of cash management are:

(i) to maximize the return by proper allocation of short-term investments, and

(ii) to minimize the cost of borrowing by borrowing in different money markets.

MNCs have access to various international financial instruments like CDs, bank loans etc., for their short-term borrowing or investment. There is a need for the finance manager to develop a strategy to meet the actual requirement of the MNC, either to mobilize the funds or to deploy the surplus cash in investments. Precautionary cash balances are necessary in case the firm has underestimated the amount needed to cover transactions.

To achieve the above objective the MNCs have to evolve a strategy by taking the following aspects into consideration :

i) The borrowing cost in a particular currency and the relationship between nominal interest rate between the currencies and anticipated exchange rates of the currencies.

ii) The exchange risk of the MNC.

iii) The level of risk acceptable to the management.

iv) The availability of tools for hedging.

v) Tax structure prevailing in various countries.

vi) Political environment and the consequent risk relating to various countries.

13.5.1 Hedging against Foreign Exchange Risks :

Hedging against risks is of vital concern for the international cash management. Hedging as a business term, stands for protecting oneself against likely loss in a particular deal through some other transaction or arrangement of reverse character. Thus hedging is an amalgam of insurance and speculation. A series of problem arise in international cash management throughout the world in the absence of a common currency, such as :

a) **Conversion Problem :** how accounts receivables or accounts payable in other currencies are to be shown in the books of a firm.

b) **Transition Problem :** how cash holdings, receivables, payables and such other assets and liabilities in various currencies are to be added up while preparing a balance sheet.

c) **Budgeting Problem :** how the stability of foreign exchange rates can be insured for the purposes of financial planning and cash budgeting.

Some of the possibilities to overcome the foreign exchange risk problems are :

i) Matching of Assets and Liabilities in a particular country / currency (in-built hedging)

ii) Postponement or speedup of Action through a system of 'Lags' and 'Leads'.

iii) **Limiting Net Exposed Current Assets :** keeping in view that it is not so necessary to hedge against likely losses on long-term assets; for, these are not meant to be sold in the ordinary course of business.

iv) **Recourse to Foreign Credits :** to protect a firm both against the possibility of a fall in the value of its assets located in another country.

v) **Mobilizing Liquid Funds :** Receivables in a weak-currency country may be reduced, whereas financial assets in a strong currency may be allowed to grow.

vi) **Use of the Forward Market :** This is minimizing interest burden on borrowings and maximizing interest gain on investments with a view to arriving at an overall optimality on that score. Protection was sought through arbitrage dealings in two different money market dealings.

Borrowing and investing abroad can be important alternatives to the use of forward market for hedging against exchange risk.

13.5.2 Hedging against Inflation Risks :

In a domestic situation, the debtor gains as a result of inflation. Whereas in the international scenario, inflation risk may lie with the debtor and not with creditor whose receipts in his own country's currency are likely to go up if there is devaluation following relatively high rates of inflation. Hedging against inflation can be done in a number of ways, such as :

i) maintaining cash balances at 'relatively' low levels in countries with 'relatively' high rates of inflation.

ii) doing the country rates of inflation;

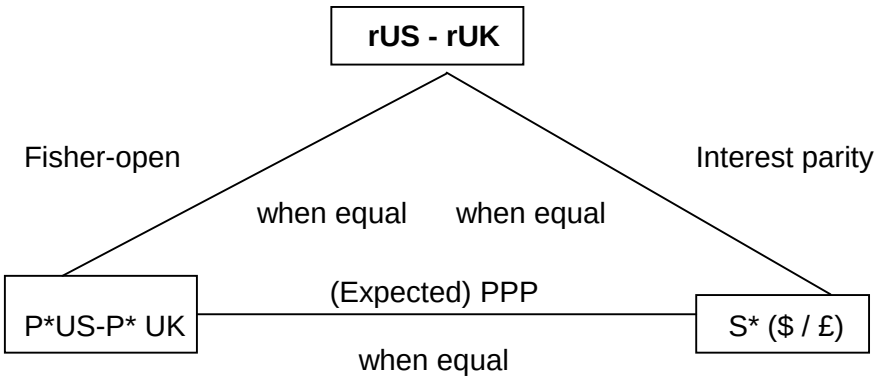
iii) taking into account relative rates of inflation in various countries while applying the interest parity theorem;

iv) taking advantage of indexation facilities to the extent these may have been provided by governments of certain countries.

Interdependence Triangle :

Interdependence of exchange rates, interest rate and inflation rates adopted from MAURISE LEVI's International Finance (1988) is depicted in the following figure.

Interdependence Triangle



Where,

rUS stands for rate of interest in US,

rUK for rate of interest in UK,

P*US for purchasing power in US,

P*UK for purchasing power in UK,

So that,

Interest Parity	:	rUS - rUK = S* ($ / £)
Purchasing Power Parity (PPP)	:	P*US - P*UK = S($ / £)
Fisher-Open	:	rUS - P*US - rUK - P*UK

The difference between rates of interest in US and UK (as per Fisher's open system) is related to the difference between the purchasing power of US $ and UK £ which, in its turn influences the $ / £ rate of exchange.

13.6 Centralized Cash Management :

A multinational corporation with subsidiaries in different parts of the world has cash flows in a variety of currencies and countries. It can leave cash management to individual subsidiaries or have a centralized cash management system. What CCM really stands for, as a code of management, is 'central-decision-making' with regard to maintenance of cash holdings in various countries / currencies, so as to optimize operational utility and to minimize the cost of keeping them.

Normally, it may not be desirable due to foreign exchange inflation, political and other risks to keep the massive pool of cash at one place. There may be a couple of region-wise or currency-wise cash holding centers under the centralized cash management system. Many international banks such as Chase Manhattan, Citi Corp offer their own cash management systems often suitably modified to take into account a particular corporation's needs.

(a) Advantages : Centralized cash management may offer, the following advantages :

i) **Netting :** In a typical multinational family of companies, there are large number of intra-corporate transactions between subsidiaries and between subsidiaries and the parent. If all the resulting cash flows are executed on a bilateral basis, a large number of currency conversions would be involved with substantial transaction costs. With a centralized system, 'netting' is possible whereby the CMC nets out receivables against payables, and only the net cash flows are settled among different units of the corporate family. Netting need not be confined to intra corporate transactions. Transactions with third parties can also be incorporated. More flexibility can be achieved in cash management if netting can be combined with leading and lagging.

ii) **Expose Management :** The CMC can adopt a corporate perspective and look at the overall currency composition of receivables and payables. Since the overall portfolio will be fairly diversified, currency risk is considerably reduced. The CMC can match and pair receivables and payables and exploit the close correlation between some currencies - for example, EUR and GBP - to achieve some degree of natural hedge.

iii) **Cash Pooling :** The CMC can act as the repository of all surplus funds. Under this system, all units are asked to transfer their surplus cash to the CMC, which transfers than among the units as needed and undertakes investment of surplus funds and short-term borrowing on behalf of the entire corporate family. Cash pooling will also reduce overall cash needs since cash requirements of individual units will not be synchronous.

iv) CCM can take a more global view of purchasing power parities, interest rates and foreign exchange rates. The most advantageous interface between borrowings and investments can be worked out.

v) There can be more effective applications of transfer pricing and other techniques for minimizing fax liability on a global basis.

vi) Eurodollars and Euro currencies can be put to more rational and economic use.

vii) Incidence of transaction costs can be reduced and hedging can be more comprehensive.

(b) Problems :

Many of the expected benefits may not be realized in actual practice due to the following reasons.

i) If the top managers are not equal to the tremendous task.

ii) Complete centralization of cash management and funds holding will generally not possible. Some funds have to be held locally in each subsidiary to meet unforeseen payments since banking systems in many developing countries do not permit rapid transfers of funds.

iii) Each corporation must evolve its own optimal degree of centralization depending upon the nature of its global operations, locations of its subsidiaries and so forth.

iv) Conflicts of interests can arise if a subsidiary is not wholly owned but a joint venture with a minority local stake.

v) In any case, CCM has to ensure an adequate fulfillment of liquidity requirements in various situations.

(c) Impact of Technology on Centralized Cash Management :

International cash management requires timely information across subsidiaries regarding cash positions in each currency by each subsidiary, along with interest rate information about each currency. Given the major improvements in online technology in recent years, all MNCs can easily and efficiently create a multinational communications network among their subsidiaries to ensure that information about cash positions is continually updated. Not withstanding the fact whether a corporate has chosen centralized or decentralized cash management, there are certain situations encountered by a Treasurer which involve decision-making after undertaking a cost benefit analysis. He should consider all the possible alternatives and then choose the optimal alternative.

13.7 Investing Surplus Funds :

In a multinational corporation with production and selling subsidiaries spread around the world, cash inflows and outflows occur in diverse currencies. Apart from cost and return considerations, several other factors influence the choice of currencies and locations for holding cash balances.

The bid-ask spreads in exchange rate quotations represent transaction costs of converting currencies into one another. Minimizing transaction costs would require that funds be kept in the currency in which they are received if there is possibility that they might be needed later in the same currency.

Availability of investment vehicles and their liquidity is another important factor. Major money market centers such as London, New York, Zurich and so forth offer a wide variety of highly liquid money market so that the firm does not need to hold practically any idle cash balances.

Withholding taxes may influence the choice. If balances are held in interest bearing assets in a country which has a withholding tax on non-resident interest income, and the tax rate exceeds the parent's home country tax rate, the parent may not be able to get full credit for the foreign tax paid.

Thus, the main considerations in choosing an investment can be: Yield, Marketability, Exchange Rate Risk, Price Risk, and Transaction Costs.

13.8 Financing Short-term Deficits:

As revealed above, the proper management of short-term surplus funds can earn extra income for the firm, careful handling of short-term deficits can lead to significant savings. The overall objective in this regard should be to minimize the overall borrowing requirement consistent with the firm's liquidity needs, and to fund these as the minimum possible all-in cost.

One of the cheapest ways of covering short-term deficit is a internal fund. External sources of short-term funding consist of overdraft facilities, fixed-term bank loans and advances and instruments like commercial paper, trade and bankers' acceptances. Apart from the all-in cost of funding, considerations such as collateral or security requirements, flexibility in terms of repayment schedule, speed with which a new facility can be arranged, effect on firm's credit rating and so forth also play a role in evaluating the funding options.

13.9 Transfer Pricing and Related Issues :

Within a large business firm with multiple divisions, goods and services are frequently transferred from one division to another. The process brings into question the 'transfer price' that should be assigned, for bookkeeping purposes, to the goods or services as they are transferred between divisions. Obviously, the higher the transfer price, the larger will be the gross profits of the transferring division relative to the receiving division. Even within domestic firm, it is difficult to decide on the transfer price. Within a MNC, the decision is further compounded by exchange restrictions on the part of the country where the receiving affiliate is located, a difference in income tax rates between the two countries, and import duties and quotas imposed by the host country.

13.10 Blocked Funds :

For a variety of reasons, a country may find itself short of foreign currency reserves, and thus impose exchange restrictions on its own currency, limiting its conversion into other currencies so as not to further reduce scarce foreign currency reserves. When a country enforces exchange controls, the remittance of profits from a subsidiary firm to its foreign parent is blocked. The blockage may be only temporary, or it may be a considerable period of time. A lengthy blockage is detrimental to a MNC. Without the ability to repatriate profits from a foreign subsidiary, the MNC might as well not even have the investment as returns are not being paid tot he stakeholders of the MNC prior to making a capital investment in a foreign subsidiary, the parent firm should investigate the potential of future funds blockage.

The unexpected funds blockage after an investment has been made, however, is a political risk with which the MNC must contend. Export creation involves using the blocked funds of a subsidiary in the country in which they are blocked to pay for exports that can be used to benefit the parent firm or other affiliates. Thus, instead of using repatriated funds to pay for goods or services that will benefit the MNC, blocked funds are used. The host countries desire to attract foreign industries that will most benefit their economic development and the technical skills of the citizens.

Thus, foreign investment in the host country in industries that produce export goods, such as automobiles or electronic equipment, or in industries that will attract tourists, such as resort hotels, is desirable. This type of investment provides good employment and training for the country's citizens and is also a source, rather than a use, of foreign exchange. The host country should not expect a MNC to make beneficial investment within its borders if it is not likely to receive an appropriate return. Consequently, MNCs in desirable industries may be able to convince the host country government through direct negotiation that funds blockage is detrimental to all.

13.11 Summary :

The genesis of the problem of international cash management lay, and still lies in the absence of a truly international currency. It may be advisable to keep less cash in a country which is experiencing fall in the value of its currency, whether internally, or externally, or both. The common techniques to optimize cash flows are (1) accelerating cash inflows, (2) minimizing currency conversion costs, (3) managing blocked funds and (4) implementing inter subsidiary cash transfers.

The criterion of money market efficiency leads to Interest Parity Theorem. Because of the cost of transactions, there may be a band of difference within which it may not be worthwhile for interest arbitrager to operate. Hedging may be required to cover foreign exchange risks and inflation risks. A multilateral netting system is beneficial in reducing the number of and the expense associated with inter-affiliate foreign exchange transactions. A centralized cash management system with a cash pool can reduce the investment the MNC has in precautionary cash balances, saving the firm money.

Transfer pricing strategies are a means to reposition funds within a MNC and a possible technique for reducing tax liabilities and removing blocked funds from a host country that has imposed foreign exchange restrictions. MNCs can possibly achieve higher returns when investing excess cash in foreign currencies that either have relatively high interest rates or may appreciate over the investment period.

13.12 Key Words:

Netting where the cash management center (CMC) nets out receivables against payables, and only the net cash flows are settled among different units of the corporate family.

Centralized Cash Depository is a system where excess cash is remitted to the central cash pool.

Offshore Currency market is a euro currency market which is also known as offshore currency market, a term which clearly covers other centers also like Hongkong, Singapore, Sydney and Torento.

Hedging stands for the modus operandi of protecting oneself against likely loss in a particular deal through some other transaction of reverse character.

Trade Capital is represented by short-term claims on foreigners for goods / services exported.

13.13 Self Assessment Questions

1. "Centralized cash management is a double-edged sword for international working capital management". Discuss.

2. In which currencies or countries would you like to retain a higher proportion of your earning for reinvestment? Explain.

3. Describe the key factors contributing to effective cash management within a firm. Why is the cash management process more difficult in a MNC ?

4. Discuss the general functions involved in international cash management.

5. What is Netting? How can it improve a MNCs performance?

13.14 Further Readings

1. Maurice Levi, International Financial Management and the International Economy, McGraw-Hill publishing Company.
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V N R

LESSON 14

FOREX REGUALTION AND CONTROL

14.0 Objectives

After reading this lesson, you should be able to:

- Discuss the methods of exchange control.
- Highlight the regulatory authorities of foreign exchange.
- To discuss the role of banks in Foreign Exchange transactions.

Structure

14.1 INTRODUCTION

Exchange control refers to the control, by the government or a centralized agency, of transactions involving foreign exchange. In a broad sense, any stipulation or regulation which restricts the free play of forces in an exchange under exchange control regime tends to be different from the one that would exist in the absence of such control. Controls on foreign exchange dealings involving foreign receipts and payments are an adjunct to the controls on foreign trade.

These controls were first resorted to during the Second World War for the purpose of conserving limited foreign exchange reserves and mobilizing them for war effort. The wartime controls were put on a statutory basis soon after war by the Foreign exchange regulations Act of 1947. This Act was replaced by a more comprehensive legislation "Foreign Exchange Regulation Act of 1973" (FERA) incorporating wider powers of control to the RBI and better enforcement through Inspecting Officers and Enforcement Directorate with a view of plugging all the loopholes or leakages noticed in its working since 1947. But the basic framework of controls remains the same under the new Act as under the old.

As a member of the IMF, India is under an obligation to collaborate with Fund to ensure orderly exchange arrangements and to promote stable exchange rate. Although current account controls are not permitted by the Fund, India secured their permission under Article XIV to keep these controls as transitional measure. In March 1992 limited convertibility of rupee on current account since March 1994. Now India is under article VIII of IMF Articles of agreement. A new Bill on the Foreign Exchange Management Act was with the Parliament to replace foreign Exchange Regulation Act. Thus FERA has been replace by FEMA.

14.2 OBJECTIVES OF EXCHANGE CONTROL

The purposes for which exchange control is imposed are many but important among them are enumerated below:

(a) Stability of Exchange Rates.

A constantly changing exchange rate may not be conducive to the economy to the economy and the government may therefore adopt exchange control methods to stabilize the exchange rate of the currency instead of leaving it to be determined by market forces. The objective in pursuing this policy should be to prevent those fluctuations of the free market rate that are purely speculative or temporary. The policy should not interfere with changes in rates caused by real alterations in the respective and temporary changes and isolate them from the fundamental changes.

(b) Overvaluation of Currency.

The exchange control may aim at keeping the currency overvalued. That is, the currency is kept at a higher value in terms of foreign currency than that would prevail if market forces were allowed to determine the rate. When the currency is overvalued imports become cheaper. Therefore, overvaluation may be resorted to encourage import of essential commodities into the country. When the country is at war, exports become difficult but the country has to import both raw materials and finished goods. In such a situation, the right to purchase foreign exchange is confined to government agencies. The demand for foreign currency is kept low and thus its price too. In other words, the exchange value of the local currency is kept high so that the government can import its requirements cheaply than would be possible otherwise.

Secondly, overvaluation may be to repay the external debt cheaply in terms of home currency. When the country is scheduled to make repayments of its external borrowings and interest thereon on a large scale, if the currency of the country is kept overvalued, the repayment would work out to be cheaper in terms of local currency.

Thirdly, it may be used to contain inflation in a country depending heavily on external trade. If the value of the currency falls, imports will become costlier and exports will get windfall profits. The immediate effect of the situation is addition to the inflation rate. The policy of the government, therefore, would be to prevent the fall in value and keep it at an artificially higher level.

(c) Undervaluation of Currency

The exchange control may be with a view to keep the currency undervalued. The effect and purpose of undervaluation of currency is opposite to that of overvaluation of currency. When the currency is undervalued, exports are cheaper and imports become costlier. Thus, undervaluation of the currency leads to increase in exports and reduction in imports and ultimately results in the improvement of balance of payments of the country. The policy of undervaluation may be helpful during depressions when selling is difficult. Undervaluation of the currency may help the task by stimulating exports through lower prices.

(d) 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. Exchange restrictions may be to prevent large-scale flight of capital from the country. The erratic and uncontrolled movement of capital will not only affect the balance of payments position but also be disturbing to the domestic economy.

(e) Reserve Foreign Exchange for Essentials.

Exchange control may be imposed to acquire foreign exchange to be utilized for importing certain essential commodities from abroad. In times of war the government may reserve foreign exchange to import essentials of war. During times of peace, government may restrict payments to acquire sufficient foreign exchange to service its external debt. This may be the case where the government is unable to find sources of fresh debts or to renew the existing debts.

(f) Freeze Foreign National Assets.

During war times, exchange control may be imposed to prevent utilization of the purchasing power in the country held by the residents of the enemy country or neutral country so that they may not be able to use the assets to help the enemy country.

(g) Economic Planning.

For a proper execution of the economic plans, exchange control helps to a great extent by controlling the foreign exchange market, encouraging exports and restricting imports to essentials and making available the resource for the development of the economy through the inflow of capital from abroad.

(h) Develop Bilateralism.

Exchange control may be with a view to encourage trade with a particular country or group of countries. This may be achieved by offering different types of rates for different countries or for different commodities. Thus exchange control may aim at developing discriminatory bilateralism.

(i) Encourage Local Industries.

The government may desire to protect the local industries from competition from abroad. Imports may be restricted the so that the local industries are allowed to grow. This paves the way for better utilization of the resources of the country and also conserves its foreign exchange reserves. Thus, exchange control is practiced for varied reasons. Each country may have more than one reason among listed above for its policies.

14.3 METHODS OF EXCHANGE CONTROL

Exchange control may take any of the following forms:

1. Exchange intervention.
2. Exchange restriction
    (a) Blocked accounts
    (b) Transfer moratoria
    (c) Multiple exchange rates
3. Exchange clearing arrangement
4. Indirect methods
    (a) Import restriction and tariffs
    (b) Export subsidy
    (c) Interest rate changes.

14.3.1. 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. In a free market the forces of demand and supply determine the

rate of exchange. Official intervention is an attempt to counter the effect of demand and supply of the currency and to keep the rate of exchange at a level desired by the government.

The intention of the government is to keep the exchange rate of the currency of the country at a fixed level. Then the currency is said to be 'pegged' at that level. If the pegged rate is higher than the rate, which would prevail in the free market, the currency is said to be 'pegged up' or simply 'pegged'.

When the exchange value of the domestic currency is pegged up, it means that the currency value will fall if free market is allowed. To keep the value at the pegged up value, the government should purchase it in large quantities. In other words, it should sell foreign currency in large quantities in the market. This would increase the demand for the currency in the market and prevent its rate from falling from the pegged up level.

To effectively carry out the operation, the government requires a large reserve of foreign currency. In addition to the accumulated reserves, the government may borrow externally. But except in times of emergency, governments are not likely to be willing to borrow continuously in foreign centers in order to support their currencies. Even if they do so, continuous borrowing would lower the country's rating in the market and ultimately the source will dry up.

Intervention may be for 'pegging down' the currency or keeping its value lower than the free market rate. When the rate of exchange of the domestic currency is rising in the market the government may sell the currency in large quantities and thus bring down its rate. Large reserves of domestic currency are required for pegging down operations. As compared to pegging up, pegging down seems easier because it is not difficult to have reserves of domestic currency. Though it is true, pegging down is also not without limitations. Taxation or public borrowing, both of which cannot go beyond certain limit, can raise domestic resources.

The other method is creation of more money by resorting to printing of currency. This is an unlimited source, but it has serious repercussions on the economy. Increased money supply will lead to inflation in the country. The inflation will cause a permanent reduction in the value of the currency. It may be remembered that the purpose of pegging down is to keep the rate of the currency at a lower level than the free market level. It is not lower the level of market rate itself.

Intervention may also be indulged in for the purpose of stabilizing the exchange rate and free it from it from short-term fluctuations. The government should be ready to purchase and sell the currency to any extent at specified rates. The market rates then tend to hover around these official rates. The government should have large reserves of both domestic currency and foreign currency to carry out the operation.

For the success of intervention two conditions are essential. The control of foreign exchange transactions should be centralized with the government. All proceeds of foreign exchange from exports and other transactions should be paid to the government. Similarly, all requirements of foreign exchange for imports and other payments should be obtained from the

government. Secondly, the government should have sufficient reserves of foreign currency and domestic currency. In practice there is a limit to both foreign and domestic resources and the possibility of intervention is limited to this extent. The judicious policy that can be followed is that of using intervention to avoid minor fluctuations in rates.

14.3.2. Exchange Restriction:

Exchange restriction refers to the policy of the government whereby the supply of domestic currency in the exchange market is restricted. The exchange value of the domestic currency is maintained by restricting its supply. Exchange intervention tries to achieve the object of maintaining the currency high by the government supplementing the demand for the currency in the market. This means the government should have sufficient foreign currency reserves to offer to the market. This method was found insufficient where the magnitude of the problem was large or where the government did not have sufficient foreign exchange reserves. Exchange restriction achieves the same objective in an easier way by simply restricting the supply of the domestic currency in the market.

Any method adopted by the government, which has the effect of restricting the supply of domestic currency in the market, can be termed exchange restriction. But in its strict application exchange restriction has the following main features:

First, all trading in foreign exchange is centralized with the government or a central monetary authority.

Secondly, public have to obtain prior permission of the government to exchange national currency for foreign currency. It is an offence for anyone to enter into an exchange transaction except by permission and through the agency of the government.

Thirdly, all foreign exchange transactions are routed through the government or the government agency. Exchange restrictions in different countries take different forms. They may control capital transactions or they may control both capital and current transactions. The important methods of exercising exchange restrictions are: (a) blocked accounts, (b) transfer moratoria, (c) multiple exchange rates.

(a) Blocked Accounts.

Under this system all payments to a foreign country will not be made directly but paid to the central bank of the country imposing the restriction. The central bank will keep the amount in an account with it in the name of the foreign creditor. This amount is not available to the foreign creditor in the currency of his country but can be used by him to make purchases from the country blocking the account. This system is known as ‘blocking of account’ because the bank accounts and other assets of the foreigners are denied conversion into their own currencies.

The country, which blocks the accounts of foreigners, may allow the use of the balance in the accounts within the country. The foreign creditor may thus make some imports from the

country blocking the accounts and make payment to the local exporter from the balance in the account. Transfer from one blocked account to another blocked account may be permitted. These relaxations may encourage illegal dealings in foreign exchange. For example, foreign exporters may under-invoice their consignments so that lesser amounts are blocked. They may collect the difference in local currency when they go to the country of the importer. When compensatory payments take place in this manner, the government losses foreign exchange to that extent that should ordinarily have flow into its reserves.

The system of blocked accounts causes great hardships to the foreign creditors who cannot use the amounts in any other currency for any purpose. Further, blocked accounts reduce international trade since other countries would not like to export to the country and get their funds blocked. The blocking of accounts also results in black marketing in foreign exchange where local disbursements of funds in the blocked accounts are allowed. The foreign creditor whose account is blocked would like to sell it to others even at a lower rate.

(b) Transfer moratoria.

The effect of transfer moratoria is similar to that of the blocked accounts. The government puts a ban on all payments to outsiders, whether on current or capital account. The local debtors are made to pay the amounts due to the foreign creditors to the central bank of the country. The funds are released to the foreigners when the balance of payments and reserves position of the country improves.

(c) Multiple exchange rates.

When the system of blocked accounts was the vogue it was found that foreigners whose funds were held up in such accounts were willing to sell these balances at a discount in the unofficial markets rather than keeping their funds blocked. The authorities then found that it would be advantageous for the country to allow the transfer of funds at a discount. They began to charge two different rates. Importers who wanted foreign currency had to purchase them at higher value. Exporters who acquired the foreign currency had to sell it to the authorities at a lower value fixed by the government. This gave way for the emergence of multiple exchange rates.

Multiple exchange rates refer to the policy of employing different rates of exchange for transactions involving different commodities and also for different currencies. The aim is to encourage exports and discourage imports to the extent possible. By quoting an unfavorable rate for imports, imports are discouraged. When the government wants to restrict imports of such a commodity. Thus multiple exchange rates substitute trade control methods like import quantity control and quota system and tries to achieve the same results by increasing the cost of imports.

14.3.3. Exchange Clearing Arrangements:

Exchange clearing arrangements is a system of bilateral settlement of mutual claims on international transactions. Under this arrangement two countries engaged in trade settle their dues through their respective central banks instead of allowing direct payments between buyers and sellers. For example, let us assume that India enters into an exchange clearing agreement with the U.K. Then the Reserve Bank of India will open an account with itself in the name of Bank of England. All imports into India, for imports from UK, are required to pay the amount to the account of Bank of England with the Reserve Bank. All exports to England are paid for by the Reserve Bank from the account of Bank of England.

Similarly, Bank of England would open an account of Reserve Bank of India with it, which would be fed with imports into the UK from India and utilized for payments for exports from UK into India. Thus no foreign exchange reserves and transfers are involved in the settlement of transactions between the central banks of two countries. The basic assumption of the arrangement is that the import and export between the countries would mutually offset and ultimately there would be no need for any payments.

14.3.4. Indirect Methods:

Among the indirect methods of exchange control, import tariffs and quotas and export subsidies fall under the category of 'trade control'. The other method is the variation of interest rates. Interest rate has an influence on the movement of capital and investments from other countries. When larger inflow of capital is required the country may increase the interest rates. But it will affect the domestic economy. These indirect methods are mostly applied for purposes other than to influence the exchange rates. Their effect on exchange rates is also not as effective as that of direct methods.

14.4 EXCHANGE CONTROL IN INDIA

Inadequacy of foreign exchange resources in India has led the Government of India to employ the technique of exchange control and to use the limited foreign exchange resources according to a scheme of priorities. Actually, under Articles of Agreement of International Monetary Fund, convertibility of currencies is an essential part of the system of multilateral trade and payments. Several developing countries have however taken advantage of the provision of traditional arrangement of continue exchange restrictions under Article XIV. In India, exchange control was imposed in 1939 under the Defense of India Rules. The Foreign Exchange Regulation Act, 1973, laid down the present arrangements. Exchange restrictions have been in existence in India for the past 60 years.

Earlier the Foreign Exchange Control Act, 1947, provisions were made for restrictions on dealing in foreign exchange, on import/export of currency/bullion and regulation of payment for goods exported. The Act was replaced in 1957 Act, powers were vested in Government to

impose exchange control between India and the rest of the World and a Directorate of Enforcement was set up to enforce the provisions of the Act.

14.5 FOREIGN EXCHANGE REGULATION ACT (FERA) 1974

The Foreign Regulation Act, 1973, came into force on January 1, 1974. The purpose of the enactment is to consolidate and amend the law regulating certain payments, dealings in foreign exchange and securities, transactions indirectly affecting foreign exchange and the import and export of currency and bullion, for the conservation of the foreign exchange resources of the country and the proper utilization thereof in the interest of the economic development of the country.

The FERA Act, 1973 covers the following transactions:

(a) Dealings in foreign exchange. Except for authorized dealers, other persons can deal in foreign exchange only with the permission of the Reserve Bank. The conversion of foreign currency into Indian currency and vice versa shall be done at rates as authorized by the Reserve Bank (Sec.8).

(b) Payment in/Receipt of foreign exchange. Receiving of payments on behalf of non-residents and payments to non-residents and payments to non-residents except through authorized dealers and in accordance with any general or special exemption given by Reserve Bank may require the amount to be placed in a blocked account (Sec.10).

(c) Imports and exports of currency and exchange. Bringing or sending into India any Indian currency or foreign currency/exchange except under the permission of the Reserve Bank is prohibited. This does not apply to foreign exchange obtained from an authorized dealer or money-changer (Sec. 13).

(d) Payment for exported goods. The exporter to the prescribed authority should furnish full value and other details of exported goods. The exporter is responsible for receipt into India of the full export value of the goods. The method of sale and other matters relating to exports are governed by notifications of Reserve Bank and Central Government (Sec. 18). Goods shall not be taken out of India on hire or lease or any arrangement other than sale except with the general or special permission of the Reserve Bank (Sec. 18 A).

(e) Issue, export and transfer of securities. Issuing of Indian securities to non-residents, transfer of securities to non-residents and sending of securities outside India require permission of Reserve Bank (Sec. 19). Issue of bearer securities also requires Reserve Bank's permission (Sec. 22).

(f) Settlement/Gift by residents. No resident shall make a gift of or settle any property in India to a non-resident, without permission of the Reserve Bank (Sec. 24).

(g) Holding of immovable property outside India by residents. No person resident in India shall, except with the general or special permission of the Reserve Bank, acquire or hold or transfer or sell or charge any immovable property situated outside India. This is not applicable to foreign nations (Sec.25).

(h) Employment / Appointment of non-residents. A person non-resident in India, a foreign national in India, a foreign company and a FERA company can act or accept appointment in India as agent only with the permission of Reserve Bank. No foreign national can practice any profession or carry on any occupation, trade or business in India without the prior permission of Reserve Bank (Secs. 28 and 30).

(i) Acquiring immovable property in India by foreign nationals. A foreign national and a foreign company shall not acquire or hold or transfer or charge any immovable property situated in India without prior permission of the Reserve Bank (Sec. 31).

For enforcing the provisions of the Act and dealing with prosecutions and adjudications for evasion or contravention of the regulations, there is separate machinery, viz., the Directorate of Enforcement in the Central Government, with headquarters in New Delhi and branch offices situated in important place in the country.

The Act was again revised in 1974

- To control the entry of foreign capital in the from of branches;
- To control the activities of resident foreigners and concerns;
- To enable prompt realization of export proceeds;
- To plug the leakage of foreign exchange through involves manipulation.

The Foreign Exchange Management Act replaced the Foreign Exchange Regulation Act, 1974 with effect from June 1, 2000, which is presented below after noting the changes since 1991.

14.5.1 Liberalized Exchange Rate Management System, (LERMS) 1992

Effective from March 1, 1992 the US dollar replaced pound sterling as the intervention currency under the Liberalized Exchange Rate Management System (LERMS), all foreign exchange receipts on current account transactions (exports and remittances) where required to be surrendered to the Authorized Dealers (Ads) in full as hitherto. The rate of exchange for these transactions was the free market rate quoted by the Ads except for 40 per cent of the proceeds, which would be based on the official rate. The Ads had to surrender to the RBI 40 percent of their purchase of foreign currencies representing current account receipts at the official rate of exchange announced by the RBI. They were free to retain the balance of 60 per cent of foreign exchange for being sold in the fee market for permissible transactions. Thos who needed to import goods and services or undertake travel abroad were expected to buy foreign exchange at market-determined rates from the Ads subject to the transactions being eligible.

14.5.2 Unified Market Determined System, 1993

The Unified Market Determined Exchange Rate System form replaced the dual exchange rate system March 1993. Under this system all the foreign exchange transactions, both current and capital, are put through by Ads at market-determined rate of exchange. The new regime continues to operate within the framework of exchange control in terms of the obligation to surrender all foreign exchange receipts to Ads. There is, however, no obligation on the part of Ads to surrender any portion of such receipts to the RBI. All payments involving foreign exchange are also effected at market-determined exchange rate through Ads.

The RBI fixes its rate of exchange on the basis of the prevailing rates within a margin of 5 per cent on either side of the market rate. It buys US dollars from AD's for spot deliveries and sells the same for purposes approved by the Government of India. They include debt service payments on behalf of Government of Indian. They include debt service payments on behalf of Government of India and a transitory arrangement for meeting 40 per cent of the value of imports under advance licenses, imprest licenses, replenishment exports and for meeting the full value of imports under Exim scrips, REP and other licences treated on a par with Exim scrips.

The Reserve Bank does not ordinarily buy spot pound sterling, Deutsche mark or Japanese Yen. It does not buy or sell any currency forward but is prepared to enter into swap transactions under which it buys US dollar spot and sells forward for periods ranging from two to six months. The intervention currency is US dollar.

In addition to its buying and selling rates for transactions with Ads the RBI announces its reference rate on a daily basis, which is based on rates quoted by a few select banks in Bombay at noon. The RBI reference rate is used for effecting transactions in SDRs as well as for transactions with countries in the Asian Clearing Union. The RBI's buying rate implicitly sets a ceiling for market rates, holding down the strong upward pressure on the rupee. The RBI's rate was supported by substantial purchases of foreign exchange by the RBI, which indirectly took the form of passive intervention against the strength of the rupee.

To provide depth to the exchange market and flexibility to market operations splitting of currency exposure and long term forward cover are allowed. Forward contracts are allowed for remittance of dividend in respect of direct foreign investment and forward cover are offered for capital transactions after obtaining prior approval of the Reserve Bank. Since banks can accept foreign currency deposits of various kinds they have been given the flexibility to lend in foreign currency, rediscount export bills abroad and invest in specific instruments.

a) Cross Currency Options:

Since January 1994, cross currency options have been introduced to develop a vibrant exchange market. Ads are permitted to offer cross currency options on a fully covered

basis to cover genuine exposure in foreign exchange. This has enabled Indian companies to access the currency options market overseas. Banks are also allowed to buy options from sources abroad and sell them to other banks in India. Customers have been permitted to sell back to an AD an option purchased but no fresh options can be purchased against the same underlying exposure.

b) Cross Currency Swaps:

Companies are allowed since 1977 to use cross currency swaps; rupee-for-foreign currency swaps to hedge foreign exchange and interest rate risks; and banks for ALM up to $25m., without prior permission from the RBI. The swaps do not affect the country's external liability.

14.6 FOREIGN EXCHANGE MANAGEMENT ACT (FEMA) 1999

The FEMA consolidated and amended the law foreign exchange with the objective of facilitating external trade and payments and promoting the orderly development and maintenance of foreign exchange market in India. The FEMA is consistent with full current account convertibility and contains provisions for progressive liberalization of capital account transactions.

The FEMA is more transparent in its application as it lays down the areas requiring specific permission of the Reserve Bank/Government of India on acquisition/holding of foreign exchange. In the remaining cases, funds can be remitted and assets/liabilities can be incurred in accordance with the specific provisions laid down in the Act. Foreign exchange transactions have been classified in two categories: capital account, which alters the assets or liabilities outside India of persons resident in India or alters the assets or liabilities in India of person resident outside India (for instance, transactions in property and investments and lending and borrowing money) and current account transactions.

The FEMA provides powers to the Reserve Bank for specifying, in consultation with the Central Government, the classes of permissible capital account transactions and limits to which exchange is admissible for such transactions. The Exchange Earners' Foreign Currency (EEFC) and Resident Foreign Currency (RFC) account holders are freely permitted to use the funds held in these accounts for payment of all permissible current account transactions. Rules made by the Central Government under this Act permit remittances for all current transactions through Ads without any monetary percentage ceiling except for certain prohibited transactions (eight items, like lotteries, banned magazines, football pools) and transactions which require approval from the Central Government (eleven items, irrespective of the amount) or the Reserve Bank (sixteen items, wherein the remittance sought for exceeds the indicative limits such as business trip ($25,000), basic travel quota (BTQ), gift, donation, employment and emigration ($5,000).

The Act gives full freedom to a person resident in India, who was earlier resident outside India, to hold/own/transfer, any foreign security/immovable property situated outside India and acquired when he/she was resident there.

The regulations under FEMA for foreign investment in India and Indian investments abroad are also comprehensive, transparent and permit Indian companies engaged in certain specified sectors to acquire shares of foreign companies, engaged in similar activities by share swap or exchange through the issuance of ADRs/GDRs upto certain specified limits.

FEMA is a civil law unlike FERA. The contraventions of the Act provide for asset only in exceptional cases. There is no presumption of *mensrea* under FEMA, that is, the burden of proof will be on the enforcement agency and not on the person in question. The Act provides for powers of adjudicating officers at par with Income Tax authorities, with an Appellate Tribunal, which would hear appeals against the orders of the adjudicating authority. Further, unlike FERA, FEMA does not apply to Indian citizens resident outside India.

14.7 FOREIGN EXCHANGE TRANSACTIONS OF COMMERCIAL BANKS IN INDIA

Commercial banks finance foreign trade and help administer the foreign exchange regulation legislation. Apart from correspondent or agency relationship with banks abroad banks maintain accounts abroad to meet public's requirement of foreign exchange. All sales and purchases of foreign exchange are routed through the accounts they maintain with banks in important financial centers abroad. They quote rates at which they buy and sell foreign exchange in accordance with the rules and regulations of the Reserve Bank and Foreign Exchange Dealers Association of India. The rates quoted depend upon the rates prevailing in inter bank or international markets and the banks margin of profit.

14.7.1 Foreign Currency Accounts:

(i) Nostro Account.

The foreign currency account maintained by banks in India with banks abroad is called a Nostro Account, which measures our account with you. The currency of the account depends on the currency of the country where the account is maintained. All foreign exchange transactions are routed through Nostro Accounts. The foreign banks pay the demand drafts issued on it by Indian Bank and collect or purchase the bills drawn on London and debits / credits the account of the Indian bank.

(ii) Vostro Account.

A foreign bank may open a rupee account with an Indian Bank and while corresponding with foreign bank refers to the account as vostro account or your account with us. When drafts drawn by foreign bank are presented to the Indian bank it would pay to the debit of the foreign bank's account with it. For purposes of exchange control the accounts are known as

non-resident accounts. Credit to non-resident bank accounts amounts to remittance of foreign currency from India to the country of the bank maintaining the vostro account. Debits to the account, amount to inflow of foreign exchange into India. Third parties when they refer to the account of a bank with a foreign bank refer to it as their account with you or your account.

14.8 RBI MANAGEMENT OF FOREX RESERVES

The major changes in the exchange rate system ushered in since 1991, reducing the number of transactions passing through reserves and the sharp rise in the foreign exchange reserves from one billion US dollars in 1991 to about $50 billion in 2002 have necessitated a change in the development of reserves which was earlier based on the pattern of country's liabilities. The country's capacity to withstand a possible outflow in future is actually depend on the proper deployment of reserves. The investment of reserves affects the RBI's balance sheet. In the management of reserves the bank follows 'loss minimization strategy' and adopted rigorous accounting norms and practices. It may be mentioned that RBI's rates of return are comparable to the standard indices for comparable investment in the foreign exchange market.

With regard to accounting norms and practices, first, the Bank makes provision for losses on the entire portfolio, which is affected by a valuation change, and not merely on cash basis. Secondly, while the Bank follows mark to market in securities valuation, the practices is asymmetrical. While depreciation provisions are made on a monthly basis from current income, subsequent recovery of prices does not allow for recouping of losses. Thirdly, when there is a movement of the reserves from a weaker currency to a strong currency the loss on conversion over the holding rate for the month, has to be charged to current income but the valuation gain in stronger currency is not treated as current income. It is treated as a valuation change.

The policy for reserve management is based on the size of the current account deficit, the size of short-term liabilities, the potential variability in portfolio investment and other capital flows and unanticipated external stocks. RBI ensures that excluding short-term variations in response to market movements, the quantum of reserves in the long run is in line with the growth of the economy and the size of the risk adjusted capital flows.

14.9 SUMMARY

In this lesson, the Forex Regulation and different methods of exchange controls are discussed. Exchange control refers to any stipulation or regulation, which restricts the free flow of foreign currency into the country. Controls on foreign exchange dealings involving foreign receipts and payments are an adjunct to the controls on foreign trade. The purposes for which exchange control is imposed are many but important among them are: exchange intervention, exchange restriction, exchange clearing arrangement, interest rate charges, etc. The inadequacy of foreign exchange resources in the country led to employ the technique of exchange control and to use the limited foreign exchange resources according to a scheme of priorities.

The Foreign Exchange Regulation Act, 1973, laid down the present arrangements. Exchange restrictions have been in existence in India for the past 60 years. Earlier the Foreign Exchange Control Act, 1947, provisions were made for restrictions on dealing in foreign exchange, on import/export of currency/bullion and regulation of payment for goods exported. The Act was replaced in 1957 Act, powers were vested in Government to impose exchange control between India and the rest of the World and a Directorate of Enforcement was set up to enforce the provisions of the Act.

The commercial banks in India finance foreign trade and help to administer the foreign exchange regulation legislation. Apart from correspondent or agency relationship with banks abroad, the banks maintained accounts abroad to meet the public requirement of foreign exchange. All sales and purchases of foreign exchange are routed through the accounts they maintained with banks in important financial centers abroad. They quote rates at which they buy and sell foreign exchange in accordance with the rules and regulations of the Reserve Bank and Foreign Exchange Dealers Association of India.

14.10 KEY WORDS:

Nostro: account of Indian bank with foreign bank in foreign country in foreign currency**.**

Vostro: account of foreign bank with Indian bank in India in Indian rupees.

Cross-Currency Swap: it involves the exchange of cash flows in one currency for those of another.

Exchange rate: the number of units of a given currency that can be purchased for one unit of another currency.

14.11 SELF-ASSESSMENT QUESTIONS

1. What are the objectives of exchange control?
2. What are the methods of exchange control?
3. Discuss the role of FERA Act in regulation of foreign exchange?
4. Discuss the role of FEMA Act in regulation of foreign exchange?
5. What are the foreign exchange transactions of commercial banks in India?
6. Discuss the role of RBI in management of foreign reserves?

14.12 FURTHER READINGS

1. Government of India, various Economic Survey Reports
2. IMF, World Economic Outlook, 1997.
3. Reserve Bank of India, Exchange Control Manual, Volume II, 1987 Edition.
4. Reserve Bank of India, Functions and Working, 1994.

R S R

Lesson - 15

INTERNATIONAL FINANCING DECISION

15.0 Objectives:

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

- Sources of financing of international financial requirements
- Institutional structure related to offshore financial resources;
- Basic considerations and guidelines for international financing decisions;

Structure:

15.1Introduction :

The guiding principle for international financial management, like domestic financial management, is the shareholder wealth maximization. International financial management, however, differ from domestic financial management as it has to deal with multiple currencies, interest rates, inflation rates and foreign exchange risk. There are a number of ways in which an international company can finance its foreign operations. It should strive to reduce its risk and minimize cost. It should take advantages of government subsidies and tax asymmetries. To avoid the foreign exchange risk of borrowing, a company can borrow a mix of currencies: local as well as foreign. It can also hedge against the risk of its liabilities if it creates assets in those currencies.

A number of companies access funds in the Eurocurrency markets either through borrowing from banks or by issuing Eurobonds. Eurocurrency loans or Eurobonds are issued in countries other than the country in whose currency they are denominated. Depository receipts, representing claims on the shares of a company, are issued by a depository, usually an international finance firm to investors in a developed country. Depository is an intermediary between the company and depository receipt holders. A number of companies, particularly developing countries, raise funds through depository receipts. Depository receipts issued to investors in the US are called American Depository Receipts (ADRs). Global Depository Receipts (GDRs) are issued in many countries.

15.2 International Financing Decision :

In the present section, we proceed to analyze the various issues involved in the financing decision. As noted earlier, the issue of optimal 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 the finance literature since the publication of the seminal paper by Modigliani and Miller (1958).

Next important issue is 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 : 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) Market segments

to be tapped. All these dimensions interact to determine the overall character of the firm's debt portfolio. For example, 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 be guided by their impact on the characteristics of the overall debt portfolio such as risk and cost as well as possible effects on future funding opportunities.

Overriding these considerations are issues of regulation and market access. Governments in some countries impose restrictions, which prevent a firm from tapping a particular market segment even though that may be the optimal borrowing route under the circumstances. For instance, during the first half of 1990s, Indian government decided to discourage resource to external debt finance and in particular did not permit short-term borrowing in foreign currency. On the other side, a particular market segment may be closed to a firm either because of its inadequate credit rating, investor unfamiliarity or inability of the firm to meet all the requirements - accounting standards, disclosure and so on - specified by the regulatory agency supervising the market. 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. Finally, 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 exposure, those arising out of its operating business and those on account of financing decisions.

15.3 Basic considerations and guidelines in International Financing Decisions:

In international financial management one must decide on the currency of the issue, the jurisdiction of the issue and the corporate legal vehicle through which the issue is made. In making such decisions, the management has to consider the following:

availability of funds and their relative costs;

the extent to which financing either increases or offsets the firm's operating costs.

should each affiliate have a capital structure based on local norms or instead attempt to mirror the firm's worldwide debt-equity target ?

to what extent the decision be influenced by the tax deductibility of interest payment.

the weight age given to credit and exchange control and other forms of political risks.

the objectives of - minimizing taxes, exploiting financial market distortions.

the total risk should be taken into consideration, because the excessive variability of cash flows may effect the firm's access to credit, and hence its ability to benefit from the interest tax shields.

The objective function of the firm can be stated as :

Maximize $VF = \sum_{I=1} V_i - p(\delta)$

Where,

v_i is the present value of each of the firm's activities;

$p(\delta)$ is a penalty factor which reflects the impact on expected after-tax cash

Flows of the total risk of the firms equity;

VF is the value of the firm, which is reduced by an increase in the expected variability of cash flows.

As stated above, the major considerations for financing decisions for multinational corporations are - Minimizing costs, Choices of Currency, choices of Investments, Choice of Jurisdiction and the Structure of Internal Transfer.

15.4 Broad Guidelines in Global Financial Choices :

The financial choices of a firm operating in one country involve only the types of instruments it issues i.e., equity, debentures etc. and the timing of those issues. A corporation operating in many countries (a multinational Corporation) or a corporation borrowing in a number of countries have other financial choices. They must decide on the currency of the issue, the jurisdiction of the issue and the corporate legal vehicle through which the issue is made. IF another legal entity raises the funds, the MNC should select the inter-affiliate transfer of funds. In making such decisions, the management has to consider the availability of funds, the relative costs and the extent to which such financing either increases or offsets the firm's operating costs.

While choosing the best financial vehicle, a firm has to consider many other issues; should each affiliate have a capital structure based on local norms or instead attempt to mirror the firm's worldwide debt-equity target? To what extent the decision be influenced by the tax deductibility of interest payment? What should be the costs and risks associated with debt denominated in different currencies? What is the weightage given to credit and exchange control and other forms of political risks?

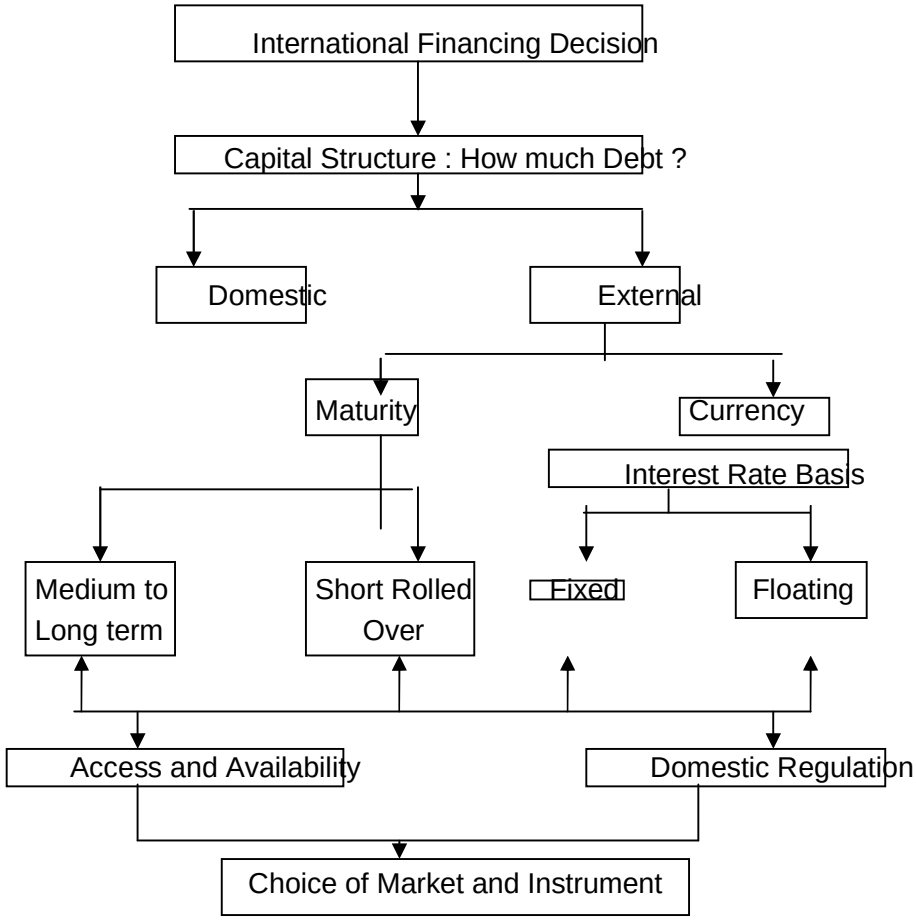
In general, the corporate financing decision reduces to a trade-off between two objectives: minimizing the expected after-tax cost of financing and keeping risks within acceptable levels. There is no explicit analytical framework for quantifying these trade-offs. Thus a few broad guidelines can be suggested for international financing decisions. Evaluation of global financial choices involves three objectives: 1) Minimising Taxes, 2) Managing Currency and Political risks and 3) Exploiting financial market distortions.

15.5 International Financial Resources and Markets :

International financial decisions involve the strategy of minimizing risks, managing currency, political risks and exploiting financial market distortions. The goal of a firm is to maximize the market value of its shares. The arrangement of capital structures of the foreign affiliates and interaction with the firms overall financial structure forms an important aspect of financial decisions.

The issue of the optimal capital structure and subsequently the optimal mix of funding instruments is one of the key 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. Following figure presents a schematic view of the international financing decision :

Chart 15.1



15.5.1 Euro 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.

a) Euro Currency and Eurobond Markets :

Euro currency markets are offshore markets where financial institutions conduct transactions. These transactions are denominated in other than the currency of the country, where the institutions are located. Eurodollars are the largest segment of this

market. These are time deposits in dollars held by financial institutions located outside United States. These deposits also include such deposits held by branches of U.S. banks.

b) Eurodollar Market :

The Eurodollars market developed after the Second World War, when the US dollar emerged as the leading reserve and international payments currency mainly as a result of Bretton Woods agreement in 1944. It is generally agreed that Eurodollar market originated in the 1950s by the desire of the Soviet Union and Eastern European countries to place their dollar holidays in European banks to avoid the risk of such balances being blocked if deposited in the US banks. The subsequent growth of the Eurodollar market was facilitated international monetary system. The British pound was replaced by the dollar as the international reserve currency and the primary instrument of exchange in the world trade and payments.

c) Euro Currency Market Instruments and Rates of Interest :

Eurocurrency deposits are held primarily in the form of fixed rate time deposits with maturities ranging from overnight to several years. About 15 to 20 percent of Eurocurrency deposits are in the form of negotiable certificates of deposit (CDs). The interest rates have been volatile since 1979. Hence, increasing use is made of Eurocurrency Floating Rate CDs and Eurocurrency Floating Rate Notes. The rates of Eurocurrency time deposits and CDs are competitively determined. Arbitrage operations ensure that rates on similar instruments with the similar maturities in the domestic US market are in alignment. Home market rates and Eurocurrency rates do not differ much.

15.5.2 Instruments available in the International Financial Markets :

The various instruments available in the international financing can be broadly classified into: i) Equity financing and ii) Debt financing.

A) **Debt Instruments :** The issue of bonds to finance cross-border capital flows has a history of more than 150 years. At the international level usually Foreign bonds and Euro bonds are issued.

i) **Foreign Bonds :** There are the bonds floated in the domestic market denominated in domestic currency by non-resident entities. Dollar denominated bonds issued in the US domestic markets by non-US companies are known as Yankee Bonds, Yen denominated bonds issued in Japanese domestic market by non-Japanese companies are known as Samurai Bonds and Pound denominated bonds issued in the UK by non UK companies are known as Bulldog Bonds.

ii) **Eurobonds :** Issuance of Eurobonds became easier with no exchange controls and no government restrictions on the transfer of funds in international markets. Slowly the US dollar came to be accepted as an international currency and New York joined the family of money centers of the World. Typically, a Eurobond is issued outside the country of the currency in which it is denominated. Eurobonds, are generally listed on World's stock exchanges, usually on the Luxemburg Stock Exchange.

Bond issues can be classified into two broad categories. Fixed rate bonds and Floating Rate Notes (FRNs)

i. **Fixed Rate Bonds :** These bonds are also known Straight Debt Bonds. FRBs are fixed interest bearing securities which are redeemable at face value and denominated in the respective currency with interest rates fixed on the basis of certain formula applicable in a given market. LIBOR is the most commonly used benchmark for measuring the yields on these bonds. There is no tax deduction at source on the income of these bonds.

ii. **Floating Rate Notes (FRNs) :** FRNs can be described as a bond issue with a maturity period varying from 5 - 7 years having varying coupon rates - either pegged to another security or re-fixed of periodic intervals. The spreads or margin on these notes will be above 6 month LIBOR for Eurodollar deposits. The bulk of the issues in the seventies were denominated in US dollars. Extensive usage of these FRNs is done by both American and Non-American Banks who would borrow to obtain dollar without exhausting credit lines with other banks.

iii. **Foreign Bonds :** These are lesser known bonds issued by foreign entities for raising medium to long-term financing from domestic money centres in their domestic currencies. The various instruments in this category are - Yankee Bonds, Samurai Bonds, Bulldog Bonds, and Shibosai Bonds.

iv. **Euro Notes :** In the early 80's, the international capital markets were faced with problems of country defaults, uncertain supply of OPEC deposits, which were the main source of deposits in the 70's, and the macroeconomic imbalances which were resulting in raising inflation and volatility in exchange and interest rates. Euro notes are different from syndicated bank credit and is different from Eurobonds in terms of its structure and primary period. Euronotes command the price of a short-term instrument usually a few basis points over LIBOR and in many instances at sub - LIBOR levels. The Euro notes may be categorized under the heads : 1) Commercial paper, ii) Note Issue Facilities, iii) Medium-Term Notes (MTN)

B) **Equity Instruments :** Since 1980's investors in many countries have shown an increasing interest in acquiring equity investments outside the countries. This is particularly so for institutional investors like mutual funds etc. This has created better opportunities for multinational companies making financing decisions.

i) **Global Depository Receipts:** The GDR is a negotiable instrument which represents publicly traded local-currency-equity share. Usually, a typical GDR is denominated in US dollars whereas the underlying shares would be denominated in the local currency of the Issuer. The advent of GDRs in India has been mainly due to the balance of payments crisis in the early '90s. At this time India did not have enough foreign exchange balance even to meet the requirements of a fortnights imports.

The sequence of activities that take place during the issuance of GDRs are - Shareholder approval, Appointment of Lead Manager, Finalization of Issue Structure. Documentation for Euro equities is a complex and elaborate process in the procedure of GDR launch.

ii) **American Depository Receipts :** ADR is a dollar denominated negotiable certificate and represents non US company's publicly traded equity ADRs are divided into 3 levels based on the regulation and privilege of each company's issue. Until 1990, companies had to issue separate receipts in the US (ADRs) and in Europe (IDRs) to access both the markets. There was no cross-border trading possible as ADRs had to be traded settled and cleared through the Depository Trust Company (DTC) in the US, while the IDRs could be traded and settled via Euroclear in Europe.

ADR Level – I : is often the first step for an issuer into the US public equity market. Issuer can enlarge the market for existing shares and thus diversify the investor base. This type of instrument is the US OTC market.

ADR Level - II : The company can enlarge the investor base for existing shares to a great extent. The company is allowed to list in the American Stock Exchange (AMEX) or NewYork Stock Exchange (NYSE) which implies that the company must meet the listing / requirements of the particular exchange.

ADR Level - III is used for raising fresh capital through public offering in the US capital markets. The company has to be registered with the SEC and comply with the listing requirements of AMEX / NYSE.

There has been an increase in the limit of FII investment in an Indian to 10% with the increase in the overall investment limit to 30%, FIIs eager to investment in certain blue chip companies are finding the GDR / ADR route as convenient to invest in such companies.

15.6 Financing Foreign Operations :

A foreign affiliate, like any other business operation, requires long-term, short-term and intermediate financing, which are briefly explained below :

(i) Long-term Financing :

The important issues relating tot he long-term financing of a foreign affiliate are : 1) What should be the stake of the parent company in the equity capital of its foreign affiliate? 2) What is the optimal capital structure of the foreign affiliate? And 3) what are the sources of long-term funds for the foreign affiliate. The parent company may hold the entire equity in its foreign affiliate or offer a portion of it to local investors and create a joint venture. It is often advantageous to set up a joint venture with local equity participation as it widens the scope of investment activity, generates certain tax advantages, strengthens the partnership between the firm and its host country, and lessens the risk of expropriation.

(ii) Optimal Capital Structure :

Given the presence of taxes, agency costs, and financial distress costs, the multinational company, as a whole, does have an optimal capital structure. But does each affiliate of the multinational company have its 'own' optimal capital structure? If we ignore some real-world imperfections, the capital structure of the affiliate is irrelevant as long as the overall capital structure of the multinational company as a whole is unchanged and the multinational company guarantees the borrowings of the affiliate.

(iii) Sources of Long-term funds :

Apart from equity capital, which is typically provided by the parent company and the local investors, the foreign affiliate requires long-term debt funds also. These are generally obtained from local banking institutions and international financing institutions. Sometimes, they may be raised by issuing debt securities in the capital market of the host country. Finally, where the firm has a respectable stature, it may even consider a Eurobond issue.

(iv) Short-term and Intermediate Financing :

Generally, the foreign affiliate taps local sources for its short-term financial needs. Short-term financing is obtained by way of an overdraft arrangement provided by local banks. Likewise, intermediate term loans can also be obtained from local banks. These loans usually require collateral and impose certain restrictions on the borrower's investment policy, dividend policy, debt-equity ratio and so on.

The foreign affiliate may also borrow in the 'Eurocurrency' market, which is the international market for short-term capital. In this market, borrowings and lending are usually for a six-month period. However, loans are typically renewable at revised rates of interest. The Eurocurrency market is virtually free from the government regulations of individual countries. Indeed, its emergence and phenomenal growth has occurred largely because it has remained beyond such regulations.

15.7 Managing Risks in International Financing :

As noted earlier, international financial decisions involve the strategy of immunizing risks, and the firm should take risks where the expected returns exceed required returns. The major risks of international transactions are foreign exchange risk, political risks, product mix risk etc. Exchange Rate Risk is the most significant aspect.

There is a penalty factor associated with the total risk or variability of cash flows. So to the extent the particular element of risk contributes to significantly to the firms' total risk, the management will be advised to avoid that risk, as long as the expected excess return is not large. The cost of long-term financing in a foreign currency is dependent on the currency's exchange rate over the financing period and therefore is uncertain. Some MNCs may consider long-term financing in foreign currencies to offset future cash inflows in those currencies and therefore reduce exposure to exchange rage risk.

The international financing decision usually effected by the following risks.

- Foreign Exchange Risks
- Political Risks
- Product Mix Risks
- Diversification of Fund Sources
- Exploiting Capital Market Distortions
- Government Subsidies.

Most of these aspects affect investment rather than financing decisions. But they tend to lower the hurdle rate. In many cases, the subsidy will depend on how the investment is financed.

15.8 Impact of Financing on the MNC's Value :

The impact of short-term and long-term financing on the value of an MNC can be briefly stated as follows :

i) **Impact of Short-term financing:** Short-term financing can affect the value of an MNC. The cost of obtaining short-term funds reflects a financing expense for MNCs. To the extent that the MNCs parent can achieve short-term financing in currencies that will reduce its short-term financing expenses, it can maintain less cash to cover such expenses, which frees up additional cash and adds value to the MNC.

ii) **Impact of Long-term Financing :** An MNC's long-term financing decisions also affects its value. The parent's long-term financing decisions determines how its long-term operations are to be financed with debt. This decision will dictate the maturity and other provisions on long-term debt securities issued. It will also dictate the currency used to denominate the debt when a parent uses debt financing, its cost of debt will be affected by its choice of the currency borrowed.

15.9 Overall Financial Structure of an MNC :

Generally there is a problem for MNC i.e., how to arrange capital structures of their foreign affiliates and what factors are relevant in making this decision. Whether the subsidiary financial structures should confirm to the parent company norms or confirm to the capitalization norms established in each country Empirical evidence suggests that the MNC as a group feel morally responsible for each of the constituent units and that they would make good non-guaranteed debt of a subsidiary unit, defaulted on its borrowings. In financing decisions for affiliates, the MNCs tend towards the option to vary affiliates financial structures as to take advantage of local financing opportunities. Thus various issues regarding subsidiaries financial structures are - Capital structure requirements, Management Control, and Joint Ventures.

15.10 Financing Foreign Currency and Exports :

The major sources available to an Indian firm for raising foreign currency finance are :

- Foreign currency term loans from financial institutions.
- Export credit schemes
- External commercial borrowings
- Euro Issues
- Issues in foreign domestic markets.

Financial institutions provide foreign currency term loans for meeting the foreign currency expenditures towards import of plant, machinery, and equipment and also towards payment of foreign technical know-how fees. Export credit agencies have been established by the governments of major industrialized countries for financing exports of capital goods and related technical services. These agencies follow certain consensus guidelines for supporting exports under a convention known as the Berne Union. Government of India permits Indian firms to resort to external commercial borrowings for the import of plant and machinery. Corporates are allowed to raise up to a stipulated amount from the global markets through the automatic route. Companies wanting to raise more than the stipulated amount have to get an approval of the MOF. The main features of the Eurocurrency loans, which represents the principal form of external commercial borrowings are - Syndication, Floating Rate, Interest Period, Currency option, Repayment and Prepayment.

Following the economic liberalization, Indian companies started exploring the market again. Unlike the earlier period when syndicated credit was the predominant form of raising external finance, companies began looking at bonds and euro equities collectively referred to as "Euro issues". Apart from the euro issues which are made in the euro market, Indian firms can also issue bonds and equities in the domestic capita market of a foreign country. Reliance Industries Limited, for example, issued bonds in the US domestic capital market. Such bonds are referred to as Yankee bonds.

Commercial banks, the major source of export finance in India, provide finance before shipment of goods as well as after shipment of goods. The EXIM was setup in 1982 to provide export and import finance, to coordinate with others providing such finance, and to promote the country's foreign trade.

15.11 Summary :

In international financial management, like the domestic financial management the guiding principle is shareholder wealth maximization. Infact, international financial decisions involve the strategy of minimizing risks, managing currency, political risks and exploiting financial market distortions. The firm should take risks where the expected returns exceed required returns. The arrangement of capital structures of the foreign affiliates and interaction with the firms overall financial structure forms an important aspect of financial decisions.

The various sources of short-term financing available to an MNCs are - Euro notes, Euro-commercial paper, Euro bank loans. Long-term financing decision is commonly influenced by the different interest rates that exist among currencies. The actual cost of long-term financing is based on both the quoted interest rate and the percentage change in the exchange rate of the currency borrowed over the loan life.

15.12 Key Words :

Eurocurrency markets are off-shore markets where financial institutions conduct transactions. These transactions are denominated in other than the currency of the country where the institutions are located.

Euro notes are debt instruments denominated other than the currency of the country in which they are issued.

Eurobond refers to off-shore operation and is denominated in a currency other than the currency of country of the initial issue.

LIBOR is the arithmetic average of the rates at which six major banks in London are willing to pay / to borrow dollars at certain time during the morning.

American Depository Receipts It is a dollar denominated negotiable certificate, and represents non-US company's publicly traded equity.

Syndicated Loan is one which is arranged and extended by a group of financial institutions to a borrower on common terms.

15.13 Self Assessment Questions

1. Discuss the various short-term and long-term sources in international financing.
2. What do you mean by Eurocurrency and Eurobond Markets ? Do you think that there has been a significant growth of the Eurodollar market ?
3) Describe the innovations in the international capital markets.
4) The firm should take risks where the expected returns exceed required returns. Discuss.
5) Explain why an MNC parent would consider financing from its subsidiaries.

15.14 Further Readings

1. Cheol S. Eun and Bruce G. Resnick - International Financial Management
2. Apte P.G. - International Financial Management
3. Rajwada A.V. - Foreign Exchange, International Finance and Risk Management.
4. Arpan, J.S. and L.H. Radenbaugh - International Accounting and Multinational Enterprises
5. Coopers & Lybrand - Foreign currency Translation and Hedging.

Lesson – 16

INTERNATIONAL INVESTMENT STRATEGY

16.0 Objectives:

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

- Rationale of overseas investment;
- Strategies of foreign direct investment;
- Strategies of portfolio investment;
- Foreign investment in India;

Structure:

16.1 Introduction:

The basic objectives of financial management in international firms remain the same as in, like a domestic firm, a multinational firm's goal is to maximise the shareholder value on a global basis. It acquires assets that have present value more than their initial

investment and it creates claims against them by issuing liabilities that are worth as much as or less than the funds raised. Multinational firms, however, operate in more than one country and their operations involve multiple foreign currencies. Politics and the laws of the countries where they operate influence their operations. Thus, they face higher degree of risk as compared to domestic firms. A matter of great concern for the international firms is to analyze the implications of the changes in interest rates, inflation rates and exchange rates on their decisions and minimize the foreign exchange risk.

The basic principle applicable to an international investment decision is similar to a domestic investment decision. The incremental cash flow of the investment should be discounted at an opportunity cost of capital appropriate to the risk of the investment. The investment should be accepted if the net present value is positive. One factor that distinguishes the international investment decision is that cash flows are earned in a foreign currency. This fact will be considered while estimating the incremental cash flows.

16.2 Rationale of Overseas Investment:

Firms become 'multinational' when they undertake 'Foreign Direct Investments' (FDI). FDI often involves the establishment of new production facilities in foreign countries. Why do firms locate production overseas rather than exporting from the home country or licensing production to a local firm in the host country? In other words, why do firms seek to corporate 'control' overseas by becoming multinational corporations? Unlike the theory of international trade or the theory of international portfolio investment, we do not have a well-developed, comprehensive theory of FDI. The key factors that are important in firm's decision to invest overseas are -- Trade barriers, Imperfect labour market, Intangible assets, Vertical integration, Product life cycle and shareholder diversification services. Investing abroad has been looked upon both as a challenge and as an opportunity since the days of yore when India occupied a place of pride in International commerce. In the modern era, foreign trade and investments have been spearheaded, mainly by MNCs of western origin.

16.3 Channels of Capital Flows:

Capital flows have followed boom-bust patterns, not withstanding the large regional and compositional variations. The main channels through which capital flows take place are:

Foreign Direct investment (FDI)

Foreign Portfolio Investment (FPI)

External Aid (EA)

Commercial Debt Capital (CDC)

Capital flows in the form of FDI flows have been widely believed to be an important source of growth in recent years. FDI is the process whereby residents of one country acquire ownership of assets for the purpose of controlling the production, distribution and other activities of a firm in another country. Portfolio capital has emerged as the key channel for integrating capital markets worldwide. Investment in equity provides returns in two forms: dividends and capital appreciation. There are five alternative investment vehicles for foreign equity investment as follows:

Direct purchase of securities in overseas markets.

The use of American Depository Receipts (ADRs)

Single country funds

International funds

Global funds

The role of external aid in enhancing growth has wanted in recent years. In several developing countries, including India, public and publicly guaranteed capital flows have been supplemented by a growing recourse to private capital flows. Commercial debt capital includes a whole range of sources of foreign capital where the overriding consideration is commercial, i.e., risk adjusted rate of return. External commercial loans could include bank loans, buyer's credit, and supplier's credit, securities instruments such as Floating Rate Notes and Fixed Rate Bonds, and Commercial borrowing from the private sector window of multilateral financial institutions.

16.4 Motives of Foreign Direct Investment:

MNCs commonly capitalize on foreign business opportunities by engaging in 'Foreign Direct Investment', which is investment in real assets such as land, buildings or even existing plants in foreign countries. They engage in joint ventures with foreign firms, acquire foreign firms, and form new foreign subsidiaries. Any of these types of FDI can generate high returns when managed properly MNCs commonly consider foreign direct investment because it can improve either profitability and enhance shareholder wealth. In most cases, MNCs engage in FDI because they are interested in boosting revenues, reducing costs or both.

FDI requires a substantial investment and can therefore put much capital at risk. Moreover, if the investment does not perform as well as expected, the MNC may have difficulty selling the foreign project it created. MNCs tend to carefully analyze the potential benefits and costs before implementing any type of FDI.

(i) Revenue - Related Motives:

The typical motives of MNCs that are attempting to boost revenues are:

Attract new sources of demand

Enter profitable markets

Exploit monopolistic advantages

React to trade restrictions and

(ii) Cost - Related Motives:

MNCs also engage in FDI to reduce costs. The motives in the process of reducing costs are:

To fully benefit from economies of scale

Use foreign factors of production

Use foreign raw materials

Use foreign technology and

To react to exchange rate movements.

International diversification is a common motive for foreign direct investment. It allows an MNC to reduce its exposure to domestic economic conditions.

16.5 Strategies of Foreign Direct Investment:

The term strategy stands for a proposed action or series of actions intended to have a far-reaching effect on the company's ability to achieve its objective and the vital characteristics of a strategy are: long range, comprehensive and crucial. In the international financial management, the following strategies are usually adapted towards foreign direct investment.

(i) Exploiting a technological lead:

A firm usually thinks of making any sizeable investment in a foreign country only after it has established a technological lead in some product or item. Intellectual property rights, represented by patents and copyrights, provide legal dimension to technological lead. While 95% of world's patents have been found to originate in developed countries, most of the MNCs, too, owe allegiance to these highly industrialised nations as their home base. But, starting manufacturing activity in host countries may not necessarily, be the best way of exploiting an innovational lead; for, licensing or leasing out of technology may be found to be more advantageous in certain situations. Establishing a joint venture with a local or international competitor in the line may, as well, be part of the strategy. However, there is the natural tendency for multinational manufacturing to be pushed toward the market because of xenophobia, customs and other barriers to importing goods into host countries, and other disadvantages of operating at a distance.

In order to use foreign technology, corporations are increasingly establishing overseas plants or acquiring existing overseas plants to learn the technology of foreign countries. This technology is then used to improve their own production processes and increase production efficiency at all subsidiary plants around the world.

(ii) Exploiting a strong trade name:

Some trade names command a premium in the market; though, in course of time, the possibility of a brand being discounted, by customers cannot be ruled out. So to protect the brand loyalty and to protect the firm's goodwill, new brands with better technology / performance are being released. The factors leading to long-term affinity or temporal craze, on the part of customers for a brand name are: experience, superior or predictable performance, snob appeal and critical character of the product or equipment.

(iii) Exploiting the economies of Scale:

An international firm gone for expansion, vertical integration or lateral invigoration to increase its size has an edge over a newcomer. That is, the market leader can adopt the strategy of shutout pricing, in relation to newcomers, by accepting, for the necessary period, a lower profit margin on all sales, while retaining the previous volume of sales. A corporation that attempts to sell its primary product in new markets may increase its earnings and shareholder wealth due to economies of scale. Firms that utilize much machinery are most likely to benefit from economies of scale.

Alternatively, the leader may make the newcomer a friend by allowing the latter to have a modest market share. Thus, a monopolistic or oligopolistic situation may come to the fore. As a safeguard against the shrinkage of sales in one country, MNCs may adopt multi-markets and multi-sources strategy covering many countries. This would reduce their geographical dependence and vulnerability to downswings of demand in certain areas.

(iv) Exploiting a Scanning Capability:

As a hedge against any serious challenge from competing firms, a leading firm may, already, have scanned more lucrative domains and safer havens for investment. The leader may have a comparative advantage, over its competitors due to inter alia, the factors:

i) Competitors may be totally unaware of, or having only hazy notions about, such new domains of investment;

ii) They may feel insecure and hesitant in embarking on such new ventures;

iii) Even if they ultimately divide to go on, they might have fallen far behind in the race;

iv) The leading firm might be having strategic contacts relevant to the new venture;

v) The leader's capability may be far more comprehensive and time-tested than that of any competitor and

vi) The leader's vast command over technology, management information system and investable resources may make it more acceptable to the political authorities and business interests of host countries.

(v) Input - Output Strategy:

There can be, more meaningfully, an autonomous input-output strategy, quite independent of the economies of scale. Japan's first post-war overseas investment in Goa is an appropriate example. It was a case of long-range input-output planning, not of large-scale economies as such. At an early stage of multinational history, foreign investment was keen to get into plantation / raw material ventures in tea, coffee, cocoa, sugar, and tropical fire industries. The case of multinational oil companies, like Jersey standard and Royal Dutch / Shell Group, provides an illuminating illustration of the input-output strategy.

(vi) Financial Strategy:

The financial strategy may be a multi-faceted strategy, consisting of the following:

a) Controlling a large multinational complex with relatively small investment, through such techniques as pyramiding, inter-investment of funds, liaison with banks and financial institutions, common board members, joint ventures, licensing arrangements etc.,

b) Readiness to make aggressive and lumpy investments to avail of opportunities of acquiring control over strategic sources of supply, manufacturing activities and enterprises falling into the broad multinational matrix;

c) Minimizing global tax burden through transfer pricing, hedging and such other techniques;

d) Taking advantage of fluctuations in foreign exchange rates, inflation rates, interest rates and such other variables;

e) Identifying profit centers as cash cows, stars and dogs and establishing an appropriate trade off between declaration of dividends and reinvestment of earnings.

f) Taking advantage of credit rating and other financial services to minimise the cost of capital;

g) Application of portfolio investment strategies and

h) Innovating financial instruments and techniques as adjunct of sophisticated management.

(vii) Environmental and Organisational Strategy:

An environmental and organisational strategy includes all other strategies. The changes in all kinds of environment, such as political, economic, financial, commercial, managerial, technological, social, educational, psychological and physical have to be taken while working out a viable strategy. During the early stages of multinationalism, the Japanese Trading Company was sitting intact at the centre, which was controlled by a number of Japanese manufacturers. The Trading Company, in its firm, controlled a good many foreign manufacturing subsidiaries owned jointly by Japanese manufacturers, Japanese Trading Companies, and local interests. Likewise, multinationals of European origin created relatively simple organisational structures, based on mother-daughter pattern, during early stages.

With the explosion of multinational activity, and far-reaching environmental changes during the last two decades, these simplistic structures gave place to complex organisational models wherein communication turned out to be a serious problem.

16.6 Strategies of Portfolio Investment:

In recent years, portfolio investments by individual and institutional investors in international stocks, bonds, and other financial securities have grown at phenomenal pace, surpassing in dollar volume foreign direct investments by corporations. U.S. equities account for less than 50 percent of the world equity market capitalization and the volume of international investment may further increase.

The rapid growth in international portfolio investments in recent years reflects the globalization of financial markets. The move for globalized financial markets initially came from the governments of major countries that began to deregulate foreign exchange and capital markets in the late 1970s. For example, the United Kingdom dismantled the investment dollar premium system in 1979, while Japan liberalized its foreign exchange market in 1980, allowing its residents, for the first time, to freely invest in foreign securities. Even developing countries such as Brazil, India, Korea, and Mexico took measures to allow foreigners to invest in their capital markets by offering country funds or directly listing stocks on international stock exchanges. In addition, recent advances in telecommunication and computer technologies have contributed to the globalization of investments by facilitating cross-border transactions and rapid discrimination of information across national borders.

Portfolio investment involves claims among nations in the form of stocks; bonds and long-term loans provided the investor does not hold a controlling interest in the foreign company. This is a category of pure investment as distinguished from direct investment where control is an essential concomitant of capital. Sometimes, a distinction is made between short-term and long-term portfolio investments. In the short-term (usually one year) category, may fall treasury bills, commercial paper and securitized forms of short-term debt. Then there are those who say that portfolio investment is, essentially, a long-term phenomenon. Some others assert that there is no point in making a distinction between short-term and long-term portfolios. However, the difference may be relevant when the disparity between short-term and long-term interest rates is unusual or irrational.

The significant strategies for portfolio management are as follows:

(i) Diversification Strategy:

International portfolio investment offers much wider scope for diversification than what might feasible within the limited boundaries of a domestic situation. Such diversification works not only in a geographical or country-wise sense as such; it, as well, gives new dimensions to industry-wise, group-wise, maturity-wise and denomination-wise diversification. While selecting the securities on an international basis, safeguard against economic risks, political risks, natural risks, and moral risks would be considered.

A distinction can be made between diversifiable and undiversifiable risks. The former category represents those risks that tend to lower the overall return to the investor. The very principle of diversification rests on the elimination of such risks. If the risk that must be borne is reduced, the equilibrium yield required on securities would also go down. While this may mean lower cost of capital from the standpoint of companies whose portfolios are being purchased, most investors may not feel happy with such a separation. Of course, some investors may go in for a safety-first strategy even if it involves a reduction in the net return. According to the Capital Asset Pricing Model (CAPM), the equilibrium risk premium vis-à-vis the relevant risk-free rate consists of both the expected cost of hedging the security against exchange rate risk and a premium for systematic risk. Thus rational investors would select portfolios by considering returns as well as risk. Investors may be willing to assume additional risk if they are sufficiently compensated by a higher expected return.

Investors may achieve international portfolio diversification through investment in international mutual funds, country funds, American Depository Receipts or World equity benchmark shares.

(ii) Income Maximization Strategy:

As far as the diversifiable risks are concerned, the Diversification Strategy and Income Maximisation Strategy go together. In a broader sense, income maximisation may also cover wealth maximisation and tax minimisation. To that extent, all the strategies may appear to be complementary. Here, however, a somewhat autonomous view seems to be preferable so as to highlight the approach of those investors who are prepared to depart from the safety-first tradition for enhancing their income. Income has to be translated into real terms, and into the currency to which the investor owes allegiance. That is, inflation risks and foreign exchange risks have to be taken note of while measuring the flow of income.

(iii) Wealth Maximisation Strategy:

The wealth maximisation strategy points toward investment in the shares of fast growth companies with high profitability and low payout ratio. Such companies must be reinvesting a substantial part of their earnings, as is the practice followed by many MNCs. These companies should be listed on a number of national and international stock exchanges so as to ensure their fair and objective valuation, as also to facilitate the realization of appreciated value when the investors need to desire to have the same. In general, portfolios should be acquired in the primary market where these may be available at par or at a relatively low premium. However, issues connected with prestigious names may get heavily oversubscribed and the profitability of an actual allotment may be rather low, particularly for those who had applied for a big chunk of shares.

(iv) Tax Minimisation Strategy:

Investors falling in the high tax brackets should prefer tax-free securities to taxable portfolios. For avoiding tax they can also adopt the technique of bond washing. In an international situation, tax structures of so many countries have to be kept in view while optimizing the Tax Minimisation Strategy. Double taxation agreements and their precise application, may also be vital determinants of investment decisions. Government encouragement or discouragement of capital movements towards certain countries may, as well, be maneuvered through tax laws.

16.7 Reinvestment and Repatriation:

Reinvestment of earnings is considered close to the gambling theory of foreign investment reference is also made, sometimes, to the rule of thumb that 50% profits accruing abroad should be reinvested. Maybe, it is an extension of the domestic practice followed by many companies and investment institutions regarding the relationship between original issued and right's issues. However, the rule of thumb may not be of much help in practical decision-making; for, varying versions of it have been put into currency from time to time. Likewise widely divergent prescriptions have been put forward regarding the percentage of market share, earnings to sales ratio and the growth in the volume of sales to be aimed at indirect investment. All the same, sustained growth is vital for the very existence of MNCs, and reinvestment of earnings may, often, be the cheapest and most convenient way of achieving the objective. A stream of income may be capitalized on the basis of the simple formula:

Where,

$$C = \frac{I}{r}$$

C is the value of a capital asset,

I is the stream of income it produces,

r is the rate of return on investment

There is another rule of thumb that the process of reinvestment should start only after receiving back the original investment in investor's own currency. However, in long gestation projects such as an approach may be counterproductive. Even then it may have to be insured that the host country will not bar the repatriation of periodical earnings and of the long-term investment.

16.8 Globalization and Foreign Investment:

Economic development remains an urgent global need. Globalization, which links countries closer than ever before with each other - reinforces this need. Globalization accentuates the increasing importance of the international economy for developing countries. Flows of finance, information, skills, technology, goods and services between countries are increasing rapidly. In a world of intensifying competition and accelerating technological change, this complementary and catalytic role of these flows can be very valuable.

Foreign Capital in the growth process generally yields conflicting results. The apparent contradiction arises from the macro-economic identity which suggests that while a surplus in the external goods and services account - reflecting the result of an export - led growth strategy - could increase GDP, that would tantamount to no role for net external financing as the country must necessarily save more than it can invest, leading to net capital outflows. The underlying assumption behind this assessment is that an export - led growth strategy can stimulate growth only by generating a surplus in the external goods and services account.

The dominant view on what drives cross - border capital flows are that marginal productivity of capital is higher in a country where capital is scarce. If marginal productivity of capital widely differed across countries, then in the presence of capital flows shortfalls in domestic saving should not constrain investment. The marginal productivity of capital in India was 58 times that of the United States as obtained through the standard estimation of Cobb-Douglas production functions. India, however, could never attract enough foreign capital to take advantage of the productivity differentials. Unlike the wide differences in estimated productivity of capital, however, real interest rates - a measure of real return received by the investors - turned out to be much less divergent across countries in reality.

Thus, the presence of internal growth supportive factors appear important, not only for attracting higher private foreign capital, but also for enhancing the growth inducing effects of such foreign capital. About 12 emerging markets account for more than 80 percent of the total private flows of all emerging markets.

16.9 Foreign Investment in India:

Identifying the growth-augmenting role of foreign capital flows has assumed critical importance in India in recent years. The overall shift in the policy stance in India from export permission and foreign exchange conservation to one that assigns an important role to export of goods and services in the growth process has primarily been guided by the perception that an open trade regime could offer a dynamic vehicle for attaining higher economic growth. Structural reforms and external financial liberalization measures introduced in the 1990s in India bought in their wake surges in capital flows as well as episodes of volatility associated with the capital account dictating the balance of payments outcome.

Till the early 1980s, the capital account of the balance of payments had essentially a financing function. Nearly 80 percent of the financing requirement was met through external assistance. The approach to liberalization of restrictions on specific capital account transactions, however, has all along been against any "big-bang". The environment for enhancing aid effectiveness has been highlighted as one of the key factors in the assessments of aid by donors, i.e., open trade, secured private property rights, the absence of corruption, respect for the rule of law, social safety nets, and sound macroeconomic and financial policies.

Given the projected need for financing infrastructure projects, 15 percent of the total infrastructure financing may have to come from foreign sources. Since the ratio of infrastructure investment to GDP is projected to increase from 5.5 percent in 1995-96 to about 8 percent by 2006, with a foreign financing of about 15 percent, foreign capital of about 1.2 percent of GDP has to be earmarked only for the infrastructure sector to achieve a GDP growth rate of about 8 percent.

A major shift in the policy stance occurred in 1991-92 with the liberalization of norms for foreign direct and portfolio investment in India. The liberalization process started with automatic approval up to 51 percent for investment in selected areas. Foreign investment responded favorably to the liberalized policy environment and the generalized improvement in macro-economic conditions. It is difficult to assess the direct contribution to these flows, particularly FDI, to the growth process.

16.10 Summary:

MNCs may be motivated to initiate foreign direct investment in order to attract new sources of demand or to enter markets where superior profits are possible. These two motives are normally based on opportunities to generate more revenue in foreign markets. International diversification is a common motive for foreign direct investment. On the basis of an international overview of direct investment, the following strategies can be identified: 1) Exploiting a technological lead, 2) Exploiting a strong trade name, 3) Exploiting the advantages of scale, 4) Exploiting a scanning capability, 5) Input-output strategy, 6) Financial strategy, 7) Environmental and organisational strategy and 8) political strategy.

The rapid growth in international portfolio investments in recent years reflects the globalization of financial markets. Portfolio investments by individual and institutional investors in international stocks, bonds, and other financial securities have grown at a phenomenal pace, surpassing in dollar volume foreign direct investments by corporations. International portfolio investment has been growing rapidly in recent years due to (a) the deregulation of financial markets, and (b) the introduction of such investment vehicles as international mutual funds, country funds, and internationally cross-listed stocks, which allow investors to achieve international diversification without incurring excessive costs. Despite sizable potential gains form international diversification, investors allocate a disproportionate share of their funds to domestic securities, displaying so called home bias. There is a rule of thumb that 50% profits accruing abroad should be reinvested. The process of reinvestment should start only after the completion of payback period.

16.11Key words:

Moratorium: A temporary (agreed) ban on an activity.

Strategy: A long range, comprehensive and crucial approach to planning for attaining a major objective (with limited resources).

Closed-end country fund: Issues a given number of shares that trade on the stock exchange of the host country as if the fund were an individual stock by itself.

ADRs: Represent receipts for foreign shares held in the U.S. (depository) banks' foreign branches or custodians.

World Equity Benchmark Shares (WEBS): Exchange traded open-end country funds that are designed to closely track foreign stock market indexes.

Systematic Risk: The risk that remains even after investors fully diversify their portfolio holdings.

World Data: Measures the sensitivity of a national market to world market movements.

16.12 Self- Assessment Questions:

1.What is the difference between direct investment and portfolio investment? To what extent is the building up of a separate investment strategies justified by such difference?

2. What factors are responsible for the recent surge in international portfolio investment?

3. What is systematic risk? Can it be reduced by international diversification?

4. Explain the significant strategies usually adopted in foreign direct investment and portfolio investment.

5. Evaluate a home country's multinational corporations as a tool for international diversification.

6. Describe the potential to an MNC as a result of foreign direct investment.

16.13 Further Readings:

1. Eun, Cheol. and Bruce Resnick - International Diversification of Investment portfolios
2. Cheol S. Eun and Bruce G. Resnick - International Financial Management
3. Jeff Madura - International Financial Management
4. N.S. Siddharthan - Conglomerates and Multinationals in India

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