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Lesson: **1**	Vetter: **Dr. B.S. Bodla**

MULTINATIONAL FINANCIAL MANAGEMENT: AN OVERVIEW

STRUCTURE

1.0 OBJECTIVES

After reading this lesson, you should be able to-

- Understand the factors responsible for emergence of globalized financial markets.
- Understand meaning, nature and scope of international financial management.
- Describe goals for international financial management.

1.1 INTRODUCTION

Financial management is mainly concerned with how to *optimally* make various corporate financial decisions, such as those pertaining to investment, capital structure, dividend policy, and working capital management, with a view to achieving a set of given corporate objectives.

In anglo-American countries as well as in many advanced countries with well-developed capital markets, maximizing shareholder wealth is generally considered the most important corporate objective.

Why do we need to study "international" financial management? The answer to this question is straightforward: We are now living in a highly **globalized and integrated world economy**. American consumers, for example, routinely purchase oil imported from Saudi Arabia and Nigeria, TV sets and camcorders from Japan, Italy, and wine from France. Foreigners, in turn, purchase American-made aircraft, software, movies, jeans, wheat, and other products. Continued liberalization of international trade is certain to further internationalize consumption patterns around the world.

Recently, financial markets have also become highly integrated. This development allows investors to diversify their investment portfolios internationally. In the words of a recent *Wall Street Journal* article, "Over the past decade, US investors have poured buckets of money into overseas markets, in the form of international mutual funds. At the same time, Japanese investors are investing heavily in US and other foreign financial markets in efforts to recycle their economous trade surpluses. In addition, many major corporations of the world, such as IBM, Daimler-Benz (now, Daimler Chrysler), and Sony, have their shares cross-listed on foreign stock exchanges, thereby rendering their shares internationally tradable and gaining access to foreign capital as well. Consequently, Daimler-Benz's venture, say, in China can be financed partly by American investors who purchase Daimler-Benz shares traded on the New York Stock Exchange.

During last few decades a rapid internationalization of business has occurred. With the increase in demand of goods and services due to opening of borders of countries around world, the requirement of capital,

machinery and technological know-how has reached to the topmost level. Now no single country can boast of self-sufficiency because in a global village a vast population of multidimensional tastes, preferences and demand exists.

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 financial managers to fully understand vital international dimensions of financial management.

In order to cater to needs/demand of huge world population, a country can engage itself in multi trading activities among various nations. In the post WTO regime (after 1999 onwards), it has became pertinent to note that MNCs (Multinational corporations) with their world-wide production and distribution activities have gained momentum. An understanding of international financial management is quite important in the light of changes in international environment, innovative instruments and institutions to facilitate the international trading activities.

Classical theory of trade assumes that countries differ enough from one another in terms of resources endowments and economic skills for these differences to be at the centre of any analysis of corporate competitiveness. Now there is free mobility of funds, resources, knowledge and technology which has made international trade more dynamic and complex. Capital moves around the world in huge amount; corporations are free to access different markets for raising finance. There exists an international competitiveness in different areas of trade and commerce. The enormous opportunities of investments, savings, consumption and market accessibility have given rise to big institutions, financial instruments and financial markets. Now a days an investor in USA would like to take investment opportunity in offshore markets. The trade off between risk of investing in global markets and return from

these investments is focussed to achieve wealth maximisation of the stakeholders. It is important to note that in international financial management, stakeholders are spread all over the world.

1.2 NATURE AND SCOPE OF INTERNATIONAL FINANCIAL MANAGEMENT

Like any finance function, international finance, the finance function of a multinational firm has two functions namely, treasury and control. The treasurer is responsible for financial planning analysis, fund acquisition, investment financing, cash management, investment decision and risk management. On the other hand, controller deals with the functions related to external reporting, tax planning and management, management information system, financial and management accounting, budget planning and control, and accounts receivables etc.

For maximising the returns from investment and to minimise the cost of finance, the firms has to take portfolio decision based on analytical skills required for this purpose. Since the firm has to raise funds from different financial markets of the world, which needs to actively exploit market imperfections and the firm's superior forecasting ability to generate purely financial gains. The complex nature of managing international finance is due to the fact that a wide variety of financial instruments, products, funding options and investment vehicles are available for both reactive and proactive management of corporate finance.

Multinational finance is multidisciplinary in nature, while an understanding of economic theories and principles is necessary to estimate and model financial decisions, financial accounting and management accounting help in decision making in financial management at multinational level.

Because of changing nature of environment at international level, the knowledge of latest changes in forex rates, volatility in capital market, interest rate fluctuations, macro level charges, micro level economic indicators, savings, consumption pattern, interest preference, investment behaviour of investors, export and import trends, competition, banking sector performance, inflationary trends, demand and supply conditions etc. is required by the practitioners of international financial management.

1.2.1 Distinguishing features of international finance

International Finance is a distinct field of study and certain features set it apart from other fields. The important distinguishing features of international finance from domestic financial management are discussed below:

1. Foreign exchange risk

An understanding of foreign exchange risk is essential for managers and investors in the modern day environment of unforeseen changes in foreign exchange rates. In a domestic economy this risk is generally ignored because a single national currency serves as the main medium of exchange within a country. When different national currencies are exchanged for each other, there is a definite risk of volatility in foreign exchange rates. The present International Monetary System set up is characterised by a mix of floating and managed exchange rate policies adopted by each nation keeping in view its interests. In fact, this variability of exchange rates is widely regarded as the most serious international financial problem facing corporate managers and policy makers.

At present, the exchange rates among some major currencies such as the US dollar, British pound, Japanese yen and the euro fluctuate in a totally

unpredictable manner. Exchange rates have fluctuated since the 1970s after the fixed exchange rates were abandoned. Exchange rate variation affect the profitability of firms and all firms must understand foreign exchange risks in order to anticipate increased competition from imports or to value increased opportunities for exports.

2. Political risk

Another risk that firms may encounter in international finance is political risk. Political risk ranges from the risk of loss (or gain) from unforeseen government actions or other events of a political character such as acts of terrorism to outright expropriation of assets held by foreigners. MNCs must assess the political risk not only in countries where it is currently doing business but also where it expects to establish subsidiaries. The extreme form of political risk is when the sovereign country changes the 'rules of the game' and the affected parties have no alternatives open to them. For example, in 1992, Enron Development Corporation, a subsidiary of a Houston based energy company, signed a contract to build India's longest power plant. Unfortunately, the project got cancelled in 1995 by the politicians in Maharashtra who argued that India did not require the power plant. The company had spent nearly $ 300 million on the project. The Enron episode highlights the problems involved in enforcing contracts in foreign countries. Thus, episode highlights the problems involved in enforcing contracts in foreign countries. Thus, political risk associated with international operations is generally greater than that associated with domestic operations and is generally more complicated.

3. Expanded opportunity sets

When firms go global, they also tend to benefit from expanded opportunities which are available now. They can raise funds in capital

markets where cost of capital is the lowest. In addition, firms can also gain from greater economies of scale when they operate on a global basis.

4. Market imperfections

The final feature of international finance that distinguishes it from domestic finance is that world markets today are highly imperfect. There are profound differences among nations' laws, tax systems, business practices and general cultural environments. Imperfections in the world financial markets tend to restrict the extent to which investors can diversify their portfolio. Though there are risks and costs in coping with these market imperfections, they also offer managers of international firms abundant opportunities.

1.3 GOALS FOR INTERNATIONAL FINANCIAL MANAGEMENT

The foregoing discussion implies that understanding and managing foreign exchange and political risks and coping with market imperfections have become important parts of the financial manager's job. *International Financial Management* is designed to provide today's financial managers with an understanding of the fundamental concepts and the tools necessary to be effective global managers. Throughout, the text emphasizes how to deal with exchange risk and market imperfections, using the various instruments and tools that are available, while at the same time maximizing the benefits from an expanded global opportunity set.

Effective financial management, however, is more than the application of the newest business techniques or operating more efficiently. There must be an underlying goal. *International Financial Management* is written from the perspective that the fundamental goal of sound financial management is shareholder wealth maximization. Shareholder wealth

maximization means that the firm makes all business decisions and investments with an eye toward making the owners of the firm– the shareholders– better off financially, or more wealthy, than they were before.

Whereas shareholder wealth maximization is generally accepted as the ultimate goal of financial management in 'Anglo-Saxon' countries, such as Australia, Canada, the United Kingdom, and especially the United States, it is not as widely embraced a goal in other parts of the world. In countries like France and Germany, for example, 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. In Japan, on the other hand, many companies form a small number of interlocking business groups called *keiretsu*, such as Mitsubishi, Mitsui, and Sumitomo, which arose from consolidation of family- owned business empires. Japanese managers tend to regard the prosperity and growth of their *keiretsu* as the critical goal; for instance, they tend to strive to maximize market share, rather than shareholder wealth.

Obviously, the firm could pursue other goals. This does not mean, however, that the goal of shareholder wealth maximization is merely an alternative, or that the firm should enter into a debate as to its appropriate fundamental goal. Quite the contrary. If the firm seeks to maximize shareholder wealth, it will most likely simultaneously be accomplishing other legitimate goals that are perceived as worthwhile. Share-holder wealth maximization is a long-run goal. A firm cannot stay in business to maximize shareholder wealth if it treats employees poorly, produces shoddy merchandise, wastes raw materials and natural resources, operates inefficiently, or fails to satisfy customers. 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.

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.

1.4 EMERGENCE OF GLOBALIZED FINANCIAL MARKETS AND MNCS

The 1980s and 90s saw a rapid integration of international capital and financial markets. The impetus for globalized financial markets initially came from the governments of major countries that had begun to deregulate their foreign exchange and capital markets. For example, in 1980 Japan deregulated its foreign exchange market, and in 1985 the Tokyo Stock Exchange admitted as members a limited number of foreign brokerage firms. Additionally, the London Stock Exchange (LSE) began admitting foreign firms as full members in February, 1986.

Perhaps the most celebrated deregulation, however, occurred in London on October 27, 1986, and is known as the “Big Bang.” On that date, as on “May Day” in 1975 in the United States, the London Stock Exchange eliminated fixed brokerage commissions. Additionally, the regulation separating the order-taking function from the market-making function was eliminated. In Europe, financial institutions are allowed to perform both investment-banking and commercial-banking; functions. Hence, the London affiliates of foreign commercial banks were eligible for member-ship on the LSE. These changes were designed to give London the most open and competitive capital markets in the world. It has worked, and today the competition in London is especially fierce among the world's major financial centers. The United States recently repealed the Glass-Steagall Act, which restricted commercial banks from

investment banking activities (such as underwriting corporate securities), fur-ther promoting competition among financial institutions. Even developing countries such as Chile, Mexico, and Korea began to liberalize by allowing foreigners to di-rectly invest in their financial markets.

Deregulated financial markets and heightened competition in financial services provided a natural environment for financial innovations that resulted in the intro-duction of various instruments. Examples of these innovative instruments include, currency futures and options, multicurrency bonds, international mutual funds, country funds, and foreign stock index futures and options. Corporations also played an active role in integrating the world financial markets by listing their shares across national treasury hard-currency foreign reserves. The sale proceeds are often used to pay down sovereign debt that has weighed heavily on the economy. Additionally, privatization is often seen as a cure for bureaucratic inefficiency and waste; some economists estimate that privatization improves efficiency and reduces operating costs by as much as 20 per cent. The International Finance in Practice box on pages 12-13 further describes the privatization process.

There is no one single way to privatize state-owned operations. The objectives of the country seem to be the prevailing guide. For the Czech Republic, speed was the overriding factor. To accomplish privatization en masse, the Czech government essentially gave away its businesses to the Czech people. For a nominal fee, vouchers were sold that allowed Czech citizens to bid on businesses as they went on the auction block. From 1991 to 1995, more than 1,700 companies were turned over to private hands. Moreover, three-quarters of the Czech citizens became stockholders in these newly privatized firms.

In Russia, there has been an ‘irreversible’ shift to private ownership, according to the World Bank. More than 80 per cent of the country’s non-

farm workers are now employed in the private sector. Eleven million apartment units have been privatized, as have half of the country's 240,000 other business firms. Additionally, via a Czech-style voucher system, 40 million Russians now own stock in over 15,000 medium- to large-size corporations that recently became privatized through mass auctions of state-owned enterprises.

International financial management is related to managing finance of MNCs. There are five methods by which firms conduct international business activities– licensing, franchising, joint ventures, management contracts and establishing new foreign subsidiaries.

- Licensing: A firm in one country licenses the use of some or all of its intellectual property (patents, trademarks, copyrights, brand names) to a firm of some other country in exchange for fees or some royalty payment. Licensing enables a firm to use its technology in foreign markets without a substantial investment in foreign countries.
- Franchising: A firm in one country authorising a firm in another country to utilise its brand names, logos etc. in return for royalty payment.
- Joint ventures: A corporate entity or partnership that is jointly owned and operated by two or more firms is known as a joint venture. Joint ventures allow two firms to apply their respective comparative advantage in a given project.
- Establishing new foreign subsidiaries: A firm can also penetrate foreign markets by establishing new operations in foreign countries to produce and sell their products. The advantage here is that the working and operation of the firm can be tailored exactly to the firms needs. However, a large amount of investment is required in this method.

- Management contracts: A firms in one country agrees to operate facilities or provide other management services to a firm in another country for an agreed upon fee.

1.5 FOREIGN INVESTMENT FLOWS TO INDIA AND OTHER DEVELOPING COUNTRIES

In the last two decades there has been a rapid growth in international financial flows to both India and other emerging economies. There are two types of foreign investment flows. One is foreign direct investment (FDI) and other is called indirect investment (portfolio investment). If we look at FDI trends in India then during last decade the following pattern has emerged (Table 1.1).

TABLE 1.1: FOREIGN INVESTMENT (FDI) FLOWS TO INDIA

Year	Direct investment		Portfolio investment		Total	
	Rs. Crore	US $ million	Rs. Crore	US $ million	Rs. Crore	US $ million
1990-91	174	97	11	6	185	103
1991-92	316	129	10	4	326	133
1992-93	965	315	748	244	1713	559
1993-94	1838	586	11188	3567	13026	4153
1994-95	4126	1314	12007	3824	16133	5138
1995-96	7172	2144	9192	2748	16364	4892
1996-97	10015	2821	11758	3312	21773	6133
1997-98	13220	3557	6696	1828	19916	5385
1998-99	10358	2462	-257	-61	10101	2401
1999-00	9338	2155	13112	3026	22450	5181
2000-01	10686	2339	12609	2760	23295	5099
2002-03	-	5035	-	979	-	6014
2003-04	-	4673	-	5035	-	9708
2004-05	-	5536	-	8909	-	14445

Source: Ministry of Commerce, GOI.

TABLE 1.2: FDI INFLOW INTO DEVELOPING COUNTRIES

($ US b)

	1987-92	**1995**	**1996**	**1997**	**1998**
All developing countries	35.33	106.22	135.34	172.53	165.94
Africa	3.01	4.14	5.91	7.66	7.93
Latin America & Caribbean	12.40	32.92	46.16	68.25	71.65
i) Argentina	1.80	5.28	6.51	8.09	5.70
ii) Brazil	1.51	5.47	10.50	18.74	28.72
Asia (84-88)	-	19.61	68.13	82.03	95.50
i) India	0.06	2.14	2.43	3.35	2.26
ii) China	-	35.85	40.18	44.24	45.46
iii) Indonesia	1.00	4.35	6.19	4.67	0.36
iv) Malaysia	2.39	4.18	5.08	5.11	3.73

Source: World Investment Report, 1999, The World Bank.

After the emergence of WTO in 1999, Cross border trade has grown tremendously with increased capital flow and foreign direct investment (FDI). In Table 1.2, it is shown that such an enormous growth rate would not have been possible without the simultaneous growth and increased sophistication of the international monetary and financial system, adequate growth in international resources, that in means of payment in international transactions, an elaborate network of banks and other financial institutions to provide credit, various forms of guarantees and insurance, innovative risk management products, a sophisticated payments system, and an efficient mechanism for dealing with short term imbalances are all prerequisites for a healthy growth in trade.

According to Government of India's economic survey, 2005-06; in financial year 2005 investment contributed significantly more to GDP growth than consumption. In 2001-02, consumption accounted for 54.5 per cent to economic growth, while in 2004-05 consumption contributed

46 per cent to GDP. On the other hand, investment accounted for 51.9 per cent in the same period. Indian economy is more investment led than consumption-led. The investment rate in the economy is rising and is now at over 30 per cent of GDP. This is for more than the 25 per cent in 1990s (Table 1.3).

TABLE 1.3: CONTRIBUTION TO GDP GROWTH AT CURRENT MARKET PRICES IN INDIA

	2000-01	2001-02	2002-03	2003-04	2004-05
Investment	0.0	0.7	4.2	5.4	6.8
Govt. final consumption expenditure	0.6	0.8	0.4	0.8	1.6
Private consumption	4.3	5.7	3.1	7.4	6.1
External balance	0.9	0.0	-0.2	-0.5	-1.0
Others	1.7	1.1	-0.1	-0.5	-0.4
GDP growth at current market price	7.6	8.2	7.4	12.7	13.1

Source: Economic Survey (2005-06), Government of India.

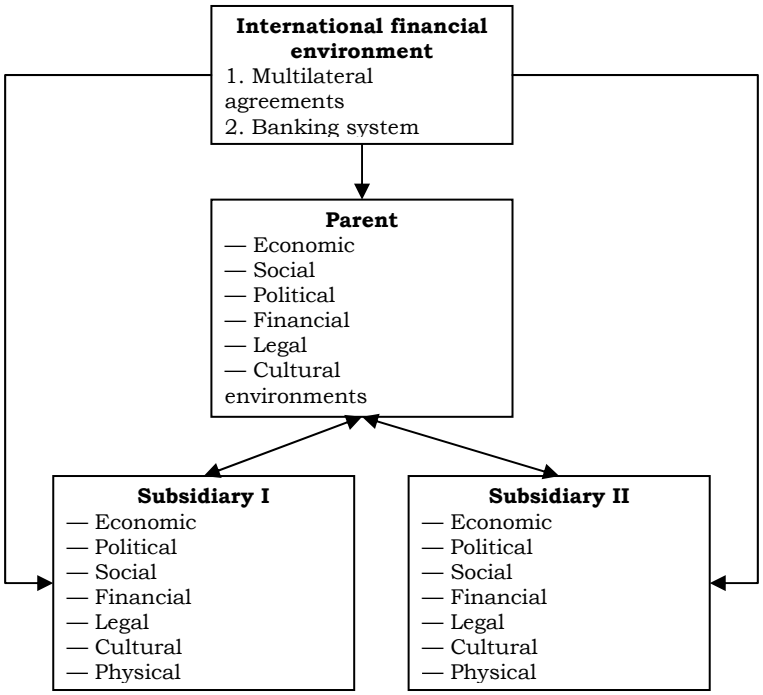
1.6 THEORY AND PRACTICE OF INTERNATIONAL FINANCIAL MANAGEMENT

The objective of an MNC is to maximise the value/wealth of the shareholders. Shareholders of an MNC are spread all over the globe. Financial executives in MNCs many a time have to take decisions that conflict with the objective of maximising shareholders wealth. It has been observed that as foreign operations of a firm expand and diversify, managers of these foreign operations become much concerned about their respective subsidiaries and are tempted to make decisions that maximise the value of their subsidiaries. These managers tend to operate independently of the MNC parent and view their subsidiary its single, separate units. Thus when a conflict of goals occurs between the managers and the shareholders, then 'agency problem' starts.

Further, the goal of wealth maximisation looks simple but when it is to be achieved in different circumstances and environment then MNCs are various strategies to prevent this conflict. The simplest solution is to reward the financial managers according to their contribution to the MNCs as a whole on a regular basis. Another alternative may be to fire managers responsible for not taking into account the goal of the parent company or probably give them less compensation/reward. Here, a holistic view of wealth maximisation should be followed rather than a narrow approach.

Theoretically speaking, manager of an MNC should take decisions in accordance with the latest changes/challenges from/in the environment. There may be multiplicity of currency and associated unique risks a manager of an MNC has to face. A well diversified MNC can actually reduce risks and fluctuations in earnings and cash flows by making the diversity in geography and currency work in its favour.

Chart 1.1. A case of an MNC having two subsidiaries



Sometimes the goal of value maximisation can not be attained just because of internal and external constraints. Internal constraints arise due to 'agency problem' while external constraints are caused by environmental laws which may tend to reduce the profit of the organisation (subsidiary profits) like building codes, disposal of waste materials and pollution control etc.

The regulatory constraints are caused by differing legislations affecting the business operations and profitability of subsidiary e.g. taxes, currency convertibility laws, remittance restrictions etc. On the other hand, there is no uniformity in code of conduct that is applicable to all countries. A business practice in one country may be ethical in that country but may be unethical in another.

1.7 SUMMARY

In view of globalization and its impact on the economy of the world, it is pertinent to note that financial management of multinational companies, has adapted to changes in the environment. The theory and practice of international financial management is in consonance with the tax environment, legal obligations, foreign exchange rates, interest rate fluctuation, capital market movements, inflationary trends, political risk and country risk, micro and macro economic environment changes, ethical constraints etc. The objective of wealth maximization can be achieved if financial manager has the knowledge of economics, investment climate, tax implications and strategies in multinational settings. Further the scope of multinational finance has widened its horizon with the emergence of innovative financial instruments and mechanism supported by multilateral trade agencies like WTO- and regional blocks like ASEAN, NAFTA, SAPTA etc. There are various challenges from the environment and accordingly the scope and

relevance of multinational financial management has increased in recent past.

1.8 KEYWORDS

CHIPS The clearing house (Clearing House Inter-bank Payments System–CHIPS) used to settle inter-bank transactions which arise from foreign exchange purchase and sales settled in US $. CHIPS is located in New York and is owned by its members.

Competitive Advantage A term coined by Michael Porter to reflect the edge a country enjoys from dynamic factors affecting international competitiveness. Factors contributing to a competitive advantage include well-motivated managers, discriminating and demanding consumers, and the existence of service and other supportive industries, as well as the necessary factor endowments.

Competitive Effect refers to the effect of exchange rate changes on the firm competitive position, which, in turn, affects the firm's operating cash flows.

Foreign Direct Investment (FDI) Investment in a foreign country that gives the MNC a measure of control.

Foreign Exchange Risk The risk of facing uncertain future exchange rates.

General Agreement on Tariffs and Trade (GATT) A multilateral agreement between member countries to promote international trade. The GAAT played a key role in reducing international trade barriers.

Multinational Corporation (MNC) refers to a firm that has business activities and interests in multiple countries.

Privatization Act of a country divesting itself of ownership and operation of business ventures by turning them over to the free market system.

Society for World-wide International Financial Telecommunications (Swift) Satellite-based international communications system for the exchange of information between banks, used, for example, to convey instructions for the transfer of deposits.

World Trade Organisation Permanent international organization created by the Uruguay round to replace GATT. The WTO will have power to enforce international trade rules.

1.9 SELF ASSESSMENT QUESTIONS

1. Explain the objective of multinational financial management? What are various aspects of world economy which have given rise to international financial management?

2. "In globalised era the functions of finance executives of an MNC have become complexed". In your view what are the factors responsible for decision making in international financial management?

3. Discuss the nature and scope of international financial management by a multinational firm.

4. How international financial management is different from financial management at domestic level.

5. Why international financial management is important for a globalised firm.

1.10 REFERENCES/SUGGESTED READINGS

Apte, G Prakash, "International Financial Management" Tata McGraw Hill Publishing Company Ltd,. New Delhi, 1995.

Bodie, Zvi, Alex Kane, and Alan J. Marcus, *Investments*, 4th ed. New York, NY: Irwin/McGraw-Hill, 1999.

Bordo, Michael, D., "The Gold Standard, Bretton Woods and Other Monetary Regimes: A Historical Appraisal", *Review*, Federal Reserve Bank of St. Louis, March/April 1993, pp. 123-199.

"Capital Flows into Emerging Markets". Cover story, Business World, 31 Oct. 2005. (pp. 44-46).

Daniels & Joseph P. & Van Hoose David, International Monetary and Financial Economics, South-Western , Thompson Learning, USA, 1988.

Holland, John, International Financial Management, Black West, Publishers, UK.

Levi, Maurice D, "International Finance", Tata McGraw Hill Publishing Company Ltd., New Delhi, 1988.

Ross, Stephen A., Randolph W. Westerfield, and Jeffrey F. Jaffee. *Corporate Finance*, 5th ed. New York, NY: Irwin/McGraw-Hill, 1999.

Seth, AK, "International Financial Management", Galgotia Publishing Company, New Delhi, 1998.

Shapiro, Alan C, Multinational Financial Management, PHI, New Delhi, 2002.

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EVOLUTION OF INTERNATIONAL MONETARY AND FINANCIAL SYSTEM

STRUCTURE

2.0 OBJECTIVES

After reading this lesson, you should be able to-

- Know the historical perspectives of international monetary and financial system
- Understand various exchange rate regimes
- Differentiate between fixed exchange rate system and floating rate system

2.1 INTRODUCTION

Trade is as old as the humanity. At national and international level, the goods and services are produced and sold among various countries and nations. Every now and then, trading activities are influenced by the environmental forces like political, economic, social, cultural factors which are controlled or sometimes uncontrollable. The concepts of 'system' arises only for the factors which are controllable and can be manipulated. But it does not mean that uncontrollable factors are less important. Why nations engage in trade with each other? The question is answered by advocates of comparative advantage theory which suggests that one nation enjoys comparative advantage over the other in respect of a particular good or services. So to have larger accessibility of international market, fulfill the demand of vast population, take comparative cost advantage countries export and import goods and services among themselves. It looks simple and easy to understand at first instance. So many factors are responsible for this practice of export and import among nations like currency risk which arises due to fluctuations in the currency rate (exchange rate) of the countries. The exporters and importers want facilitators of international trade which is possible only when there is a proper system and mechanism in this

regard. Many a time exporters and importers depend on credit facilities from external and internal sources e.g. banks, government organizations, funding agencies, etc. The factors like interest rates on borrowings and lending largely have an impact on exporters and importers. In other words, international financial system should take into consideration exporting and importing. Therefore, international financial system refers to financial institutions and financial markets/facilitators of international trade, financial instruments (to minimise risk exposure), rules regulations, principles and procedures of international trade.

Monetary system is the most important ingredient of international trade and financial system which facilitates the process of flow of goods and services among different countries of the world.

2.2 International Monetary System: An Overview

International monetary system is defined as a set of procedures, mechanisms, processes, institutions to establish that rate at which exchange rate is determined in respect to other currency. To understand the complex procedure of international trading practices, it is pertinent to have a look at the historical perspective of the financial and monetary system.

The whole story of monetary and financial system revolves around 'Exchange Rate' i.e. the rate at which currency is exchanged among different countries for settlement of payments arising from trading of goods and services. To have an understanding of historical perspectives of international monetary system, firstly one must have a knowledge of exchange rate regimes. Various exchange rate regimes found from 1880 to till date at the international level are described briefly as follows:

2.2.1 Monetary System Before First World War: (1880-1914 Era of Gold Standard)

The oldest system of exchange rate was known as "Gold Species Standard" in which actual currency contained a fixed content of gold. The other version called "Gold Bullion Standard", where the basis of money remained fixed gold but the authorities were ready to convert, at a fixed rate, the paper currency issued by them into paper currency of another country which is operating in Gold. The exchange rate between pair of two currencies was determined by respective exchange rates against 'Gold' which was called 'Mint Parity'. Three rules were followed with respect to this conversion :

- The authorities must fix some once-for-all conversion rate of paper money issued by them into gold.
- There must be free flow of Gold between countries on Gold Standard.
- The money supply should be tied with the amount of Gold reserves kept by authorities. The gold standard was very rigid and during 'great depression' (1929-32) it vanished completely. In modern times some economists and policy makers advocate this standard to continue because of its ability to control excessive money supply.

2.2.2 The Gold Exchange Standard (1925-1931)

With the failure of gold standard during first world war, a much refined form of exchange regime was initiated in 1925 in which US and England could hold gold reserve and other nations could hold both gold and

dollars/sterling as reserves. In 1931, England took its foot back which resulted in abolition of this regime.

Also to maintain trade competitiveness, the countries started devaluing their currencies in order to increase exports and demotivate imports. This was termed as "beggar-thy-neighbour " policy. This practice led to great depression which was a threat to war ravaged world after the second world war. Allied nations held a conference in New Hampshire, the outcome of which gave birth to two new institutions namely the International Monetary Fund (IMF) and the World Bank, (WB) and the system was known as Bretton Woods System which prevailed during (1946-1971). (Bretton Woods, the place in New Hampshire, where more than 40 nations met to hold a conference).

2.2.3 The Bretton Woods Era (1946 to 1971)

To streamline and revamp the war ravaged world economy & monetary system, allied powers held a conference in 'Bretton Woods', which gave birth to two super institutions - IMF and the WB. In Bretton Woods modified form of Gold Exchange Standard was set up with the following characteristics :

- One US dollar conversion rate was fixed by the USA as one dollar = 35 ounce of Gold
- Other members agreed to fix the parities of their currencies vis-à-vis dollar with respect to permissible central parity with one per cent (± 1%) fluctuation on either side. In case of crossing the limits, the authorities were free hand to intervene to bring back the exchange rate within limits.

The mechanism of Bretton Woods can be understood with the help of the following illustration:

Suppose there is a supply curve SS and demand curve DD for Dollars. On Y-axis, let us draw price of Dollar with respect to Rupees (See fig. 2.1)

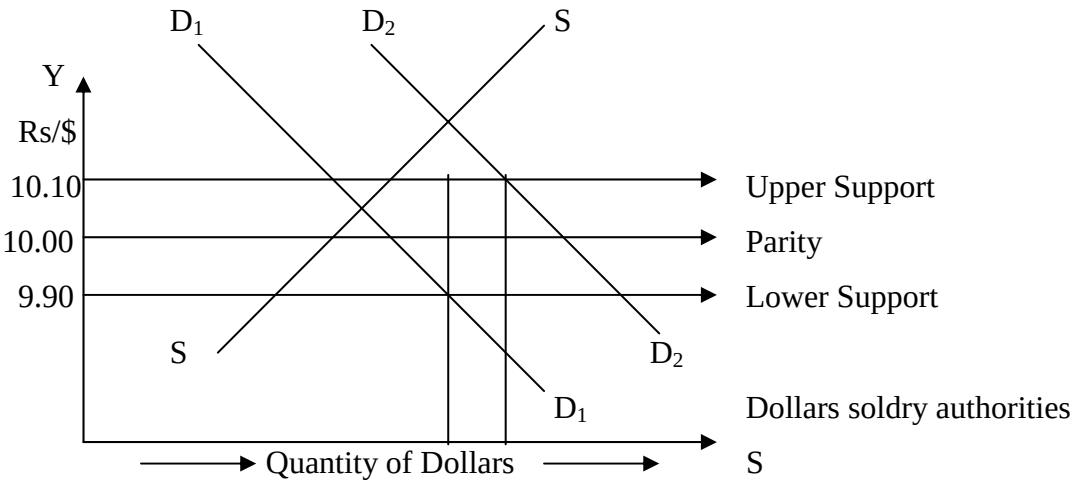

Fig. 2.1: Relationship between exchange rate and demand/supply of currency

Suppose Indian residents start demanding American goods & services. Naturally demand of US Dollar will rise. And suppose US residents develop an interest in buying goods and services from India, it will increase supply of dollars from America.

Assume a parity rate of exchange is Rs. 10.00 per dollar. The ± 1% limits are therefore Rs. 10.10 (Upper support and Rs. 9.90 lower support).

As long as the demand and supply curve intersect within the permissible range; Indian authorities will not intervene.

Suppose demand curve shifts towards right due to a shift in preference of Indians towards buying American goods and the market determined exchange rate would fall outside the band, in this situation, Indian authorities will intervene and buy rupees and supply dollars to bring back the demand curve within permissible band. The vice-versa can also happen.

There can be two consequences of this intervention. Firstly, the domestic money supply, price and G.N.P. etc. can be effected. Secondly, excessive supply of dollars from reserves may lead to exhaustion or depletion of forex reserves, there by preventing all possibilities to borrow dollars from other countries or IMF.

During Bretton Woods regime American dollar became international money while other countries needed to hold dollar reserves. US could buy goods and services from her own money. The confidence of countries in US dollars started shaking in 1960s with chronological events which were political and economic and on August 15, 1971 American abandoned their commitment to convert dollars into gold at fixed price of $35 per ounce, the currencies went on float rather than fixed. Though "Smithsonian Agreement" also failed to resolve the crisis yet by 1973, the world moved to a system of floating rates. (Note : Smithsonian Agreement made an attempt to resurrect the system by increasing the price of gold and widening the band of permissible variations around the central parity).

2.2.4 Post Bretton Woods Period (1971-1991)

Two major events took place in 1973-74 when oil prices were quadrupled by the Organisational of Petroleum Exporting Countries (OPEC). The result was seen in expended oils bills, inflation and economic dislocation, thereby the monetary policies of the countries were being overhauled. From 1977 to 1985, US dollar observed fluctuations in the oil prices which imposed on the countries to adopt a much flexible regime i.e. a hybrid between fixed and floating regimes. A group of European Nations entered into European Monetary System (EMS) which was an arrangement of pegging their currencies within themselves.

TABLE 2.1: HISTORICAL EVENTS IN INTERNATIONAL MONETARY SYSTEM

1821-1914	Gold Standard
1914-1918	First World War
1919-1925	Suspension of Gold
1925-1931	Return to Gold
1931-1939	Beggar -thy-neighbour
1939-1945	Second World War
1944-1971	Bretton Woods System
1973-1985	Floating of Major Currencies
1985-1992	Coordination via EMS, G7, IMF
1992-1993	EMS Crisis.

2.2.5 Current Scenario of Exchange Regimes

At present IMF (International Monetary Fund) categories different exchange rate mechanism as follows:

1. **Exchange arrangement with no separate legal tender:** The members of a currency union share a common currency. Economic and Monetary Unit (EMU) who have adopted common currency and countries which have adopted currency of other country. As of 1999, 37 IMF member countries had this sort of exchange rate regime.

2. **Currency Board Agreement :** In this regime, there is a legislative commitment to exchange domestic currency against a specified currency at a fixed rate. As of 1999, eight members had adopted this regime.

3. **Conventional fixed peg arrangement :** This regime is equivalent to Bretton Woods in the sense that a country pegs its currency to

another, or to a basket of currencies with a band variation not exceeding ± 1% around the central parity. Upto 1999, thirty countries had pegged their currencies to a single currency while fourteen countries to a basket of currencies.

4. **Pegged Exchange Rates Within Horizontal Bands :** In this regime, the variation around a central parity is permitted within a wider band. It is a middle way between a fixed peg and floating peg. Upto 1999, eight countries had this regime.

5. **Crawling Peg :** Here also a currency is pegged to another currency or a basket of currencies but the peg is adjusted periodically which may be pre-announced or discretion based or well specified criterion. Sixty countries had this type of regime in 1999.

6. **Crawling bands :** The currency is maintained within a certain margins around a central parity which 'crawls' in response to certain indicators. Upto 1999, nine countries enjoyed this regime.

7. **Managed float :** In this regime, central bank interferes in the foreign exchange market by buying and selling foreign currencies against home currencies without any commitment or pronouncement. Twenty five countries have this regime as in 1999.

8. **Independently floating :** Here exchange rate is determined by market forces and central bank only act as a catalyst to prevent excessive supply of foreign exchange and not to drive it to a particular level. Including India, in 1999, forty eight countries had this regime.

Now-a-days a wide variety of arrangements exist and countries adopt the monetary system according to their own whims and fancies. That's why some analysts are calling is a monetary "non-system".

2.2.6 The Era of Euro and European Monetary Union

As a failure of the Smithsonian agreement in 1973, some countries of Europe met together to form a union which was basically an attempt to keep the member countries exchange rate within narrower band of 1.125% around the central rates while they maintained the wider band of 2.25% against the currencies of other countries. This was known as 'Snake in the Tunnel' and in 1979 the 'snake' became the European Monetary System (EMS) with all EEC countries joining the club except Britain. It was also an adjustable peg where countries declared their bilateral parities (the parity grid) with exchange rates allowed to oscillate within ± 2.25% (except Italian hira, ± 6%) around the central parity.

The ECU was the sponsor of 'EURO' commonly shared by eleven member countries. This was mainly an attempt to create a single economic zone in Europe with complete freedom of resource mobility within the zone. In November, 1999, central banks of EEC countries finalised the draft statute for a future European Central Bank.

The concept of European economic and monetary union received severe jolts when in 1992 refrendum, Denmark people (Danish) rejected the "Maastricht Theory" and Italy and Britain faced political resentment against it. Debates were going on to resolve the conflicts and ultimately in Dec. 1996 "Growth & Stability Pact" was agreed upon in Dublin. As a consequence of this pact, 'EURO' came into existence on January 1, 1999 and trading began on January 4, 1999.

The 'parity' fixed for the currencies of eleven countries is given in Table 2.2.

TABLE 2.2

One Euro is equal to-

Austranian Schilling	13.760300
Belgian Franc	40.339900
Dutch Guilder	2.203710
Finnish Markka	5.945730
French Franc	6.559570
German Mark	1.955830
Italian Lira	1936.270000
Luxemberg Franc	40.339900
Portugese Escudo	200.482000
Spanish Peseta	166.386000
Irish Punt	0.787564

Source: The Wall Street Journal, August, 1999.

2.3 EVOLUTION OF INTERNATIONAL FINANCIAL SYSTEM

International financial system consists of international financial markets, international financial intermediaries and international financial instruments. International financial markets of two types: international capital markets and international money markets. International capital markets are the markets for cross -border exchange of financial instruments that have maturities of one year or more. On the other hand, international money markets are markets for cross border exchange of financial instruments with maturities of less than one year.

Up to the mid-1940s, there was no multilateral agency to provide funds. It was only in 1945 that the International Bank for Reconstruction and Development (IBRD) was established as an outcome of the Bretton Woods conference. It provided loans for reconstruction of the war ravaged economies of Western Europe and then also started developmental loans

in 1948. The IBRD's function was limited to lending and so the provision of equity finance lay beyond its scope. Moreover, it lent only after the guarantee by the borrowing government. Thus, in order to overcome these problems, the International Finance Corporation (IFC) was established in 1956 to provide loans even without government guarantee and also provided equity finance. However, one problem remained to be solved. It was regarding the poorer countries of the developing world, which were not in a position to utilise the costly resources of the IBRD, because those funds were carrying the market rate of interest. Another sister institution was created in 1960 for these countries and it was named the International Development Association (IDA). The two institutions-IBRD and IDA- together came to be known as the World Bank.

Because of deregulation, liberalisation and technological innovation that has taken place since the early 1970's, international capital markets have shown considerable growth. Since the early 1970's , financing activity in international markets has shown an impressive growth. Although these markets have experienced remarkable growth, savers still have very low levels of international portfolio diversification. To make the international flow of goods and services smoothers, financial instruments are required like capital market instruments and money market instruments. Again, the capital market instruments are those financial instruments for the purpose of transactions of international capital markets and money market financial instruments are meant for the purpose of transaction in international money markets.

In 1950s and early 1960s, there took a great trade between the then USSR and USA. The traders of USSR received huge amount of dollars from the US in lieu of their gold sent to the USA. Due to political and diplomatic reasons, the people of USSR were afraid of depositing the

dollars received from the USA in their own banks. They adopted different route to deposit dollars in other countries like Britain and France, which were providing relatively attractive rates of interest on dollar deposits. Hence, the concept of euro money evolved. With the passage of time and increased complexities in multinational trade, there emerged a great need to develop some financial products/instruments to smoothen the process of international flow of capitals and funds.

Eurobonds, euronoted and eurocommercial papers are financial instruments denominated in a currency other than that of the nations in which instruments are issued. Eurobonds are long term debt instruments denominated in a currency other than that of the country in which the instruments is issued. Eurocommercial papers are the unsecured short term debt instruments issued in a currency other than that of the country in which the instrument is issued.

When IBRD was established, its main objective was not to distribute direct loans but to encourage private investment. It began lending on a large scale only when the desired amount of private investment failed to come up during the initial years. Lending naturally became the major function but the issue of encouragement to international investment remained. And to this end, the Multilateral Investment Guarantee Agency (MIGA) was established in 1980s in order to cover the non-commercial risks of foreign investors. All these four institutions - IBRD, IDA, IFC and MIGA - together are known as the World Bank Group. Talking liberally, the International Centre for Settlement of Investment Disputes (ICSID), that was set up in 1966, is also treated as a part of the World Bank Group.

When the World Bank Group emerged as a major funding agency, it was felt that its lending norms did not suit all member countries belonging to different regions equally. This is because the economic and political

conditions as well as the requirements of the different regions of the globe were different. Thus, for tuning of the funding in line with varying requirements of the different regions, it was decided to set up regional development banks on the pattern of the international development banks. The 1960s were marked with the establishment of regional development banks in Latin America, Africa, and Asia. The Asian Development Bank, meant for the development of the Asian region, began operations from 1967.

2.3.1 Evolution of International financial Institutions bilateral agencies

The history of bilateral lending is not older than that of multilateral lending. During the first half of the twentieth century, funds flowed from the empire to its colonies for meeting a part of the budgetary deficit of the colonial government. But it was not a normal practice. Nor was it ever considered as external assistance, as it is in the present day context. Bilateral economic assistance was announced for the first time by the US President Truman in January 1951. In fact, the motivation behind the announcement was primarily political and economic. The cold war between the United States of America and the then Union of Soviet Socialist Republic (USSR) was at its peak during this period. The US government tried to befriend developing countries and bring them into its own camp in order to make itself politically more powerful. It could help the US economy to come closer to developing economies and also to get the desired raw material and food stuffs from them. The economic assistance could help build the infrastructure facilities in the developing countries, which could, in turn, help increase US private investment in those countries.

In 1950s, the then USSR also announced its external assistance programme in order to counter the US move. By the end of 1960s' many other member countries of the Organisation of Economic Corporation and Development (OECT) announced external assistance programmes. In this way, bilateral funding agencies got popularity as well as acceptability. Also, the different governments joined hands with private agencies and export credits came to form a sizable part of the bilateral assistance programme.

2.3.2 Emergence of International Banks

Among the non-official funding agencies, international banks occupy the top position. If one looks at their development since 1950s, distinct structural changes are evident. In the first half of the twentieth century and till the late 1950s, international banks were primarily domestic banks performing the functions of international banks. This means that they operated in foreign countries, accepting deposits from, and making loans to, the residents in the host countries. They dealt in the currency of the host countries, but at the same time, they dealt in foreign currency, making finance available for foreign trade transactions.

2.3.3 Euro Banks

In the late 1950s and especially in the early 1960s, banks with a purely international character emerged on the global financial map. This new variety of banks came to be known as euro banks. The deposit with and the lending by the euro banks formed the euro currency market. The euro banks emerged on a footing quite different from the traditionally known international banks.

Euro banks deal with both residents and non-residents. They essentially, deal in any currency other than the currency of the host country. For

example, if a euro bank is located in London, it will deal in any currency other than the British pound. The deposits and loans of the euro bank are remunerated at the interest rate set by the market forces operating in the euro currency market and not by the interest rate prevailing among the domestic banks in the host country. Again, the other difference between the traditional international bank and the euro bank is that the former is subjected to rules and regulation of the host country, but euro banks are free from the rules and regulations of the host government. The rationale behind the deregulation is that the activities of euro banks do not touch the domestic economy. This is because they are concerned normally with the movement of funds from one foreign market to another foreign market and so are neutral from the view point of any direct impact on the balance of payments of the host country.

2.3.4 Bank for International Settlements (BIS)

In the same connection, it would be pertinent to note that due to increased complexities in the banking agencies world wide and to bring coordination among central banks around the globe, there should be a bank of coordinating nature. operational since 1930, the Bank for International Settlements (BIS) is the worlds oldest financial institution, which acts as a bank for central banks.

In 1975, the G-10 central bank governors set up the Basle Committee on "Banking Regulations & Supervisory Practices", which from time-to-time keeps on giving guidelines to the central banks on capital adequacy, risk management and prudential norms etc. also the BIS assists central banks in the investments of monetary reserves; provides a forum for international monetary cooperation; act as an agent or trustees in carrying out international loan agreements; and conduct extensive research.

With the integration of capital markets, the restrictions on free flow of goods and services were removed. This phenomenon pushed the countries with higher savings rate to invest their money in less costly equity markets of other countries. Global Depository Receipt (GDRs) or American Depository Receipts (ADRs) are the latest instruments to raise funds from global markets or American markets. Depository Receipts (DRs) facilitate cross border trading and settlement; minimises cost and broaden in the potential base, especially among institutional investors. Reliance was the first Indian Corporate to raise funds from GDR amounting to US$ 150 million from USA in May, 1992. According to the latest data released by Institute of International Finance , capital inflows from private investors into emerging global markets touched US$ 340 billion from US $317 billion in 2004 (Table 2.3).

TABLE 2.3: SHOWING PRIVATE CAPITAL FLOWS INTO EMERGING MARKETS (AMOUNT IN BILLION DOLLARS)

Year	**2003**	**2004**	**2005 (f)**	**2006 (f)**
Total Private Flows	213.7	317.4	345.2	317.8
Latin America	26.8	31	46.2	49.9
Europe	65.1	108.9	131.5	110.8
Africa, Middle East	3.6	11	21.6	12.3
Asia Pacific	118.2	166.4	145.9	144.8

Note: Data of 2005 and 2006 are forecasts by IIF

Source: Institute of International Finance

Of course, in the long run, fond flows to emerging markets are likely to continue to grow. A study by an international brokerage house has pointed out that global emerging markets currently account for 19.2 per cent of the World's GDP, but only 6.4 per cent of the World's market capitalisation.

2.4 SUMMARY

This lesson provides an overview of the international monetary system, which defines an environment in which multinational corporations operate. The international monetary system can be defined as the institutional framework within which international payments are made, the movements of capital are accommodated, and exchange rates among currencies are determined. The international monetary system went through five stages of evolution- (a) bimetallism, (b) classical gold standard, (c) interwar period, (d) Bretton Woods system, and (e) flexible exchange rate regime.

The classical gold standard spanned 1875-1914. Under the gold standard, the exchange rate between two currencies is determined by the gold contents of the currencies. To prevent the recurrence of economic nationalism with no clear 'rules of the game' witnessed during the interwar period, representatives of 44 nations met at Bretton Woods, New Hampshire, in 1944 and adopted a new international monetary system. Under the Bretton Woods system, each country established a par value in relation to the US dollar, which was fully convertible to gold. Countries used foreign exchanges, especially the US dollar, as well as gold as international means of payments. The Bretton Woods system was designed to maintain stable exchange rates and economize on gold. The Bretton Woods system eventually collapsed in 1973 mainly because of U.S. domestic inflation and the persistent balance-of-payments deficits.

The flexible exchange rate regime that replaced the Bretton Woods system was ratified by the Jamaica Agreement. Following a spectacular rise and fall of the US dollar in the 1980s, major industrial countries agreed to cooperate to achieve greater exchange rate stability. The Louvre Accord of 1987 marked the inception of the managed-float system under which the G-7 countries would jointly intervene in the foreign exchange

market to correct over- or undervaluation of currencies. On January 1, 1999, eleven European countries including France and Germany adopted a common currency called the euro. The advent of a single European currency, which may eventually rival the US dollar as a global vehicle currency, will have major implications for the European as well as world economy.

2.5 KEYWORDS

Bretton Woods System The procedure for fixing exchange rate and managing the international financial system, worked out in Bretton Woods, New Hampshire, in 1944. The system involved fixing foreign currencies to the US $ and the US $ to gold. The Bretton Wood system was in effect until the early 1970s. Also called the *gold exchange standard*.

Crawling Peg An automatic system for revising the *parity* (par) exchange rate, typically basing the par value on recent experience of the actual exchange rate within its support points. The crawling peg allows exchange rates to move toward equilibrium levels in the long run while reducing fluctuations in the short run.

European Monitory System (EMS) The procedure involving the exchange rate mechanism for fixing exchange rates among the European union countries. The EMS was intended to be a precursor to a common currency.

European Union The association of countries formerly called the European Community (EC). The EU is a customs union.

Exchange Rate Mechanism (ERM) The procedure used for fixing exchange rates within the European Monitory System from 1979 to 1993.

Exchange Rates Regime refers to the mechanism, procedures and institutional framework for determining exchange rates at a point of time and change in them over time, including factors which induce the changes.

Fixed Exchange Rate Regime This is also known as a "pegged" exchange rate regime where currency is pegged to another currency or gold.

Fixed Exchange Rates A system of exchange rate determination in which governments try to maintain exchange rates at selected official levels.

Floating /Flexible Exchange Rate Regime An exchange rate system whereby a nation allows market forces to determine the international value of its currency.

Floating Rate Note Medium term bonds which have their coupon payments indexed to a reference rate such as the three months US dollar LIBOR.

Gold Exchange Standard A monitory system in which countries hold most of their reserves in the form of a currency of a particular country. That country is on the gold standard.

Gold Points The upper and lower limits on the range within which exchange rates can move when currencies are fixed to gold. The size of the range within the gold points depends on the cost of shipping gold and of exchanging currencies for gold.

Gold Standard A monitory system in which currencies are defined in terms of their gold content. The exchange rate between a pair of currencies is determined by their relative gold contents.

International Monitory System The institutional framework within which international payments are made, movements of capital are accommodated, and exchange rates among currencies are determined.

Real Exchange Rate measures the degree of deviation from PPP over a period of time, assuming PPP held at the beginning of the period.

Special Drawing Rights Reserves at, and created by, the International Monitory Fund (IMF) and allocated by making ledger entries in countries accounts at the IMF. Used for meeting imbalances in the balance of payments and assisting developing nations.

2.6 SELF ASSESSMENT QUESTIONS

1. Define International Financial system. Explain the various parties in international financial system with their interrelationships?

2. What do you mean by international monetary system? "Exchange rate is the focal point to understand the whole mechanism of monetary system." Justify the statement with illustration?

3. Describe in detail the evolution of international monetary and financial systems?

4. Write notes on the following:
   - Crawling peg
   - Gold standard
   - Bretton Woods System
   - International Monetary Fund (IMF)
   - Special Drawing Rights (SDRs)

5. There is a conflict between the proponents of fixed rate and floating rate currency regimes. In your opinion which should be preferred and why?

2.7 REFERENCES/SUGGESTED READINGS

Apte, G Prakash, "International Financial Management" Tata McGraw Hill Publishing Company Ltd, New Delhi, 1995.

Black, Stanley W., "International Monetary Institutions", *New Palgrove Dictionary of Economics*, MacMillan, London, 1987, pp. 665-673.

"Capital Flows into Emerging Markets". Cover story, Business World, 31 Oct. 2005. (pp. 44-46)

Daniels & Joseph P. & Van Hoose David, International Monetary and Financial Economics, South-Western , Thompson Learning, USA, 1988.

Feldstein, Martin, "The Case Against EMU", *The Economist*, June 13, 1992, pp. 19-22.

Grubel, Herbert G., *International Economics*, Richard D. Irwin, Homewood, III., 1977.

Holland, John, International Financial Management, Black West, Publishers, UK.

Levi, Maurice D, "International Finance", Tata McGraw Hill Publishing Company Ltd., New Delhi, 1988.

Seth, AK, "International Financial Management", Galgotia Publishing Company, New Delhi, 1998.

Shapiro, Alan C, Multinational Financial Management, PHI, New Delhi, 2002.

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Lesson: 3	

MANAGEMENT OF SHORT-TERM ASSETS AND LIABILITIES

STRUCTURE

3.0 OBJECTIVES

After going through this lesson, learners will be able to-

- Understand the basics of management of cash, receivable and inventory in a multinational company;
- Know the difference between the working capital management of a multination company and a domestic company; and
- Understand the various risks involved in working capital management in case of multinational company.

3.1 INTRODUCTION

Working capital management is the process of planning and controlling the level and mixture of current assets of the company as well as financing of these current assets. This involves the use of certain prescribed aids like risk-return trade-off, credit standards and inventory models. The management of working capital can be viewed as a static (stock) responsibility or a dynamic process. The earlier approach focuses on individual assets such as management of cash, accounts available, and inventories and concerned with to determine the appropriate levels of cash balances, accounts receivable and inventories. The dynamic approach of working capital management focuses on transfer of liquid funds from one location/currency to another. The objective of working capital management is to determine the optimal amount of investment in different current assets so that maximises return on investment. In the case of international working capital management, the financial manager must give special consideration to political constraints because same governments can block dividend repatriation or other forms of fund remittances.

The management of working capital in a multinational firm is similar to a domestic firm. Both are essentially concerned with selecting that combination of current assets- cash, marketable securities, accounts receivable and inventory that will maximise the value of the firm. The basic difference between domestic and international working capital management is the impact of currency fluctuations, different rate of inflation, exchange control, diversity of banking and commercial practices, delays in transfer of funds from one country to another, wider range of short-term financing and investment options available. A multinational firm owns a number of enterprises across the globe, it also examines the tax and other consequences of these affiliates. This chapter

is mainly concerned with the management of cash, marketable securities, accounts receivable and inventory.

3.2 INTERNATIONAL CASH MANAGEMENT IN A MULTINATIONAL FIRM

Cash management is an important aspect of working capital management and principles of domestic and international cash management are the same. The basic difference between the two is, international cash management is wider in scope and is more complicated because it has to consider the principles and practices of other countries. The cash management is mainly concerned with the cash balances, including marketable securities, are held partly to allow normal day-to-day cash disbursements and partly to protect against un-anticipated variations from budgeted cash flows. These two motives are called the transaction motive and precautionary motive. Cash disbursement for operations is replenished from two sources:

- Internal working capital turnover
- Short-term borrowings.

The efficient cash management is mainly concerned with to reduce cash tied up unnecessarily in the system, without diminishing profit or increasing risk so as to increase the rate of return on capital employed. The main objectives of cash management are:

(i) How to manage and control the cash resources of the company as quickly and efficiently as possible.

(ii) To achieve the optimum and conservation of cash.

The first objective of international cash management can be achieved by improving the cash collections and disbursements with the help of accurate and timely forecast of the cash flow. The second objective of international cash management can be achieved by minimising the

required level of cash balances and increasing the risk adjusted return on capital employed.

Both the objectives mentioned above conflict each other because minimising transaction costs of currency convers would require that cash balances be kept in the currency in which they have been received which conflicts with both the currency and political exposure criteria. The key to developing an optimum system is centralised of cash management.

3.3 CENTRALISATION OF CASH MANAGEMENT SYSTEM

Centralisation of cash management refers to centralisation of information, reports and decision-making process as to cash mobilisation, movement and investment of cash. Centralised cash management system will benefit the multinational firm in the following ways:

- Maintaining minimum cash balance during the year.
- Helpful to generate maximum possible returns by investing all cash resources.
- To manage the liquidity requirements of the centre.
- Helpful to take complete benefits of bilateral netting and multinational netting for reducing transaction costs.
- Helpful in utilising the various hedging strategies to minimise the foreign exchange exposure.
- Helpful to get the benefit of transfer pricing mechanism to enhance the profitability of the firm.

The international cash management requires achieving the two basic objectives:

i) Optimising cash flow movements and

ii) Investing excess cash

3.4 TECHNIQUES TO OPTIMISE CASH FLOW

Accelerating collection and decelerating disbursements is a key element of international cash management. Material potential benefits exists because long delays are often encountered in collecting receivables, and in transferring funds among affiliates and corporate headquarters. In international cash management, with the help of following ways, the cash inflows are being optimised:

- Accelerating cash inflows and delaying cash outflows
- Managing blocked funds
- Leading and lagging strategy
- Using netting to reduce overall transaction costs.
- Minimising the tax on cash flow through international transfer pricing.

3.4.1 Accelerating cash inflows

Accelerating cash inflow is one of the main objectives of international cash management. Early recovery of cash assures that cash is available with the firm for making payments or investment. To accelerate the cash inflows, the companies also establishes lock boxes around the world which are numbered by post office department and customers are instructed to put cheques of payment in these boxes. This system helps in reducing the time involved in receiving the payment. Another method of accelerating cash inflows is the preauthorised payment which allows a company to charge from a customer's bank account up to a specific limit. For accelerating cash inflows, the use of telex on cable transfers is often suggested for reducing the mailing delay. In this context, the society for world-wide Inter-bank Financial Telecommunications (SWIFT) has brought into its fold around 1000 banks among which funds are transferred electronically with case. There are some multinational banks that provide 'same-day-value' facilities. In this facility, the amount

deposited in any branch of the bank in any country is credited to the firm's account on the same day.

Delaying cash outflows means postponing the cash disbursements without effecting the goodwill of the firm.

3.4.2 Managing blocked funds

In emergency situations, the host country may block funds that the subsidiary attempts to repatriate to the parent company. For example, the host government may make its compulsory that profits generated by the subsidiary be reinvested locally for a specific time period before they can be remitted, these funds are known as blocked funds. For using the blocked funds, the parent company may instruct the subsidiary company to obtain financing from a local bank rather than from the parent. In this context, the parent company should investigate the potential of future funds blockage. Unexpected funds blockage after an investment has been made is, however, a political risk with which the multinational company (MNC) must contend.

The various methods for moving the blocked funds are transfer pricing strategies, parallel and back to back loan, leading and lagging, direct negotiates, etc.

3.4.3 Leading and lagging strategy

Leading means shortening of credit terms in number of days, while lagging means extending or enlarging of the days of credit. Shortening of the period of credit causes greater flow of cash from the purchaser (importer) to the seller (exporter). MNCs can accelerate (lead) or delay (lag) the timing of foreign currency payments by modifying the credit terms extended by one unit to another. Companies generally accelerate the payments of hard currency payables and delay the payments of soft

currency payables so as to reduce foreign exchange exposure. Thus, companies use the lead/lag strategy to reduce transaction exposure by paying or collecting foreign finance obligations early (lead) or late (lag) depending on whether the currency is hard or soft.

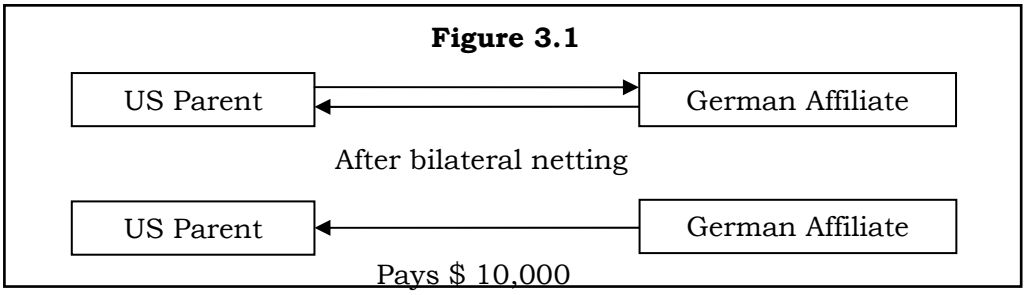
3.4.4 Using netting to reduce overall transaction costs

Netting is a technique of optimising cash flow movements with the joint efforts of subsidiaries. Netting is, in fact, the elimination of counter payments. This means that only net amount is paid. For example, if the parent company is to receive US $ 6.0 million from its subsidiary and if the same subsidiary is to get US $ 2.0 million from the parent company, these two transactions can be netted to one transaction where the subsidiary will transfer US $ 4.00 million to the parent company. If the amount of these two payments is equal, there will be no movements of funds, and transaction cost will reduce to zero. The process involves the reduction of administration and transaction costs that result from currency conversion. Netting is of two types: (i) Bilateral netting system; and (ii) Multinational netting system.

3.4.5 Bilateral netting system

A bilateral netting system involves transactions between the parent and a subsidiary or between two subsidiaries. For example, US parent and the German affiliate have to receive net $ 40,000 and $ 30,000 from one another. Thus, under a bilateral netting system, only one payment will be made the German affiliate pays the US parent an amount equal to $ 10,000 (Fig. 3.1).

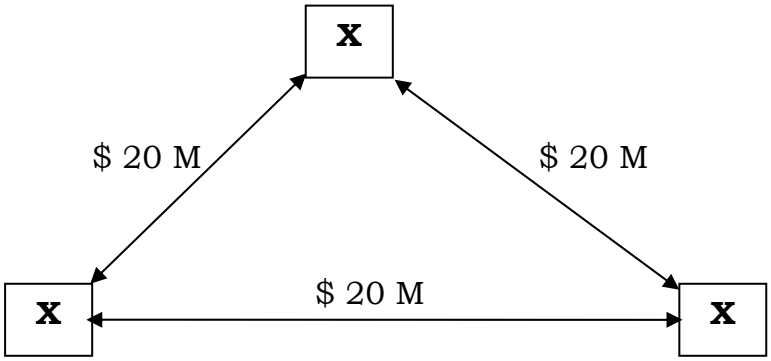
Figure 3.1



3.4.6 Multinational netting system

A multinational netting system involves a move complex interchange among the parent and its several affiliates but it results in a considerable saving in exchange and transfer costs. Under this system, each affiliate nets all its interaffiliate receipts against all its disbursements. It then transfers or receives the balance, depending on whether it is a net receiver or a payer. To make a multinational netting system effective, it needs the services of a centralised communication system and discipline on the part of subsidiaries involved. Consider an example of multinational netting system, subsidiary X sells $ 20 million worth of goods to subsidiary Y, subsidiary Y sells $ 20 million worth of goods to subsidiary Z and subsidiary Z sells $ 20 million worth of goods to subsidiary X. In this case, multinational netting would eliminate interaffiliate fund transfers completely (Fig. 3.2).

Fig. 3.2



3.4.7 Minimising the tax on cash flow through international transfer pricing

In a multinational company having many subsidiaries, goods and services are frequently transferred from one subsidiary to another. The profits of the various subsidiaries are determined by the price that will be

charged by the transferring affiliate to receiving affiliate. Higher the transfer price, the larger will be the gross profit of the transferring affiliate and smaller to the receiving affiliate. This strategy highlights how the high tax subsidiary is subsidising other subsidiaries. Such a strategy reduces the subsidiary's profits but increases the overall cash flow for the MNC. However, there may be some limitations in the transfer pricing policy since host governments may attempt to prevent MNCs from implementing such a strategy.

3.5 INVESTING SURPLUS CASH

The other important function of international cash management is investing surplus cash. The Eurocurrency market helps in investing and accommodating excess cash in the international money market. Investment in foreign markets has been made much simpler and easier due to improved telecommunication systems and integration among money markets in various countries. Several aspects of short-term investing by an MNC need further clarification namely-

(i) Should an MNC develop a centralised cash-management strategy whereby excess funds with the individual subsidiaries are pooled together or maintain a separate investment for all subsidiaries.

(ii) Where to invest the excess funds once the MNC has used whatever excess funds were needed to cover financing needs.

(iii) May it be worthwhile for an MNC to diversify its portfolio of securities across countries with different currency denominations because the MNC is not very sure as to how exchange rates will change over time.

3.6 ACCOUNTS RECEIVABLE MANAGEMENT

Firms grant trade credit to customers both domestically and internationally, because firms expect that credit sales to be profitable, either by increasing sales or by retaining sales that otherwise would be

lost to competitors. In same cases, it may happen that companies also earn profits on the financing charges that impose on the credit sales. The companies required to evaluate the credit terms and credit period in different countries because different rates prevails has to ensure that the cost of the credit sales in different countries. The company should not exceed the benefits from the credit sales. The credit sale in case of multinational company may be within different unit of the firm or it is an inter-firm sales. In case of intra-firm sales, the focus of receivables management is not on the quantum of credit sale or on the timing of payment but on the global allocation of firm's resources. There is often vertical integration among different units located in different countries. Different parts of the same product are manufactured in different affiliates and exported to the assembly unit. In this case early payment or late payment does not matter because the seller and purchaser represent the same firm. A particular unit may delay the payment if it is suffering from cash shortage, and the payment may be quick if the unit has surplus cash. In this way it is all a game of intra-firm allocation of resources. In the situation when the some affiliates are located in a weak-currency country, it is asked to make a quick payment so that the cost of receivables borne by the firm as a whole may not be large. The impact of exchange rate changes may be illustrated, suppose credit period is 120 days and financing cost is 1.0% per month. The importer's currency is expected to be depreciated by 2.0% during the four-month period and receivables are denominated in the importer's currency. The additional cost of receivables per unit of the exporter's currency, which is the product of the financing cost and the currency depreciation is

$1 - [(1 - 4 \times 0.01)\ (1 - 0.02)] = 0.059 = 5.9\%.$

In the case of inter-firm sales/sales to an outside firm, a couple of decisions are involved, first is about the currency in which the transaction should be denominated and the second is about the terms of

payment should be. The exporters like to denominate the transactions in a hard currency, while the importer like to get it denominated in soft currency. However, the exporter may be ready to invoice the transaction in the weak currency even for a long period of credit if it has debt in that currency so that sale proceeds can be used to retire the debt without any loss on account of exchange rate changes. In concerned the term of payment, the exporter does not provide a longer period of credit and tries to get the export proceeds as early as possible specifically if the transaction is invoiced in a soft currency. The use of factors is another way to minimise accounts receivable risks from changes in exchange rates between the sale date and collection date.

3.6.1 Benefits and cost of receivables

As management moves from tight credit policy to lenient credit policy, sales tend to increase and subsequently the profits also. However, the lenient credit policy is also likely to increase bad debt losses and investments in accounts receivable.

In theory, the company should liberalise its credit policy to the point where the marginal profits on its increased sales equals the marginal cost of credit. The following are the cost involved with the credit sale:

Financing cost: Interest paid on funds tagged with receivables. The higher the interest rate or the longer the period of credit, the higher is the cost.

Administration cost: This includes, cost incurred on maintaining office for such sales and cost of maintaining records.

Collection cost: These costs incurred especially when the bills are not paid in time.

Bad-debt losses: Bad-debt losses tend to increase when firm adopts lenient credit policy.

Foreign exchange loss: This is cost of receivables when exchange rate changes against the exporter during the period of credit.

Since the benefits and costs 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 of income statement based on different terms, and adopts a particular term where the net profit is highest.

3.7 INVENTORY MANAGEMENT

Inventory accounts for the biggest share of the current assets. At the same time, it is the least liquid. So, management of inventory deserves sufficient care. To a large extent, the management of inventory in a multinational company is similar as in case of a domestic firm. But some additional factors are important in the case of multinational company, like MNC has to maintain inventory simultaneously in different countries, transit time is quite larger, customs procedures are quite lengthy, political risk along with exchange rate risk is there.

It is not surprising to note that for the last few decades the greatest improvements within the area of current asset management have been made in the area of inventory control and investment. The levels of sales, the length of production cycle and the durability of the product are the major determinants of investment in inventory. In case of a domestic company, inventory level is decided in such a way that both carrying costs and stock out costs are minimised. But in case of a MNC, difference in the costs of production and storage in different countries allow the MNC to maintain more flexible inventory policies. For example, MNC can get the benefit of cheaper costs that may exist in a particular country by

shifting its production or storage function in that country. It is also to be noted that many foreign affiliates operate under inflationary economic conditions then MNC has to determine whether to buy inventory in advance or to delay purchase until the inventory is actually needed. Advance purchases involve costs like carrying costs, insurance premiums, storage costs and taxes. Later purchases increase the possibility of higher costs either through inflation or devaluation. Inflation increases the cost of locally purchased items and devaluation increases the costs of imported items.

However, many companies that rely on imported inventories maintain over-stocked inventory accounts. The fears of inflation, shortages of raw-materials, and a number of other environmental constraints are inducing companies to maintain high overseas inventory levels.

The additional environmental constraints include anticipated import bans in foreign countries, anticipated delivery delays caused by strikes and slowdowns, the lack of sophisticated production and inventory control systems and increased difficulty in obtaining foreign exchange for inventory purchases.

3.8 SUMMARY

The main objective of the working capital management is to determine the optimum size of the current assets and to determine the financing of current assets. Working capital management in a multinational company is more complex due to changes in exchange rate, tax rate differentials proximity to international financial market.

In the process of international cash management the first step is to optimise the cash requirements and then to find the cheapest source of cash. The surplus cash, if any, is invested normally through a centralised pool and in the currencies where the effective return is the highest. In

case of management of receivables, the finance manager should create receivables up to the level where marginal cost is equal to the marginal benefit. As regards inventory management, the multinational firms hold larger stocks than the principle of EOQ permits. To avoid the political risk and the exchange rate risk inherent in the transaction of goods.

3.9 KEYWORDS

Cash Management The handling of cash within a firm such as the investment a firm has in transaction balances, funds tied up in precautionary cash balances and borrowing at the lowest rate when there is a temporary cash shortage.

Foreign Subsidiary A foreign operation that is incorporated in the foreign country but owned by a parent company.

Liquidity The ability of securities to be bought and solved quickly at close to the current quoted price.

Netting Center In multilateral netting, it determines the amount of net payments and which affiliate are to make and make or pay them.

Pooling The practice of holding (and managing) cash in a single location.

Transaction Cost The amount paid in brokerage or similar charges when making a transaction. On currencies, transaction costs are represented by the spread between the bid and ask exchange rates.

Transfer Prices Prices used for goods and services moving within a multinational corporation from one division to another. Rules typically require that transfer prices be arm's-length prices.

3.10 SELF ASSESSMENT QUESTIONS

1. What is centralised cash management? How it is beneficial to an MNC?

2. What are the main objectives of an effective international cash management?

3. Differentiate between bilateral and multilateral netting with the help of suitable examples.

4. Explain the various techniques to optimise the cash inflows.

5. What do you understand by Accounts Receivable Management? Explain the benefits and costs of receivables.

6. Explain the process of inventory management in a multinational company.

3.11 REFERENCES/SUGGESTED READINGS

Adrian Buckley, "Multinational Finance", Haritage Publishers, New Delhi, 1987.

Allman-Ward, Michele, "Globalization and the Cash/Treasury Manager." *Journal of Cash Management* 12 (1992), pp. 26-34.

Apte, P.G., "International Financial Management", Tata McGraw Hill, New Delhi, 1995.

Bhalla, V.K., "International Financial Management", Anmol Publications Pvt. Ltd., New Delhi, India, 2000.

Collins, J. Markham, and Alan W. Frankle. "International Cash Management Practices of Large U.S. Firms." *Journal of Cash Management* 5 (1985), pp. 42-48.

Maurice D. Levi, “International Financial Management and the International Economy”, McGraw-Hill Book Company, 1988.

Shapiro, Alan C., “Multinational Financial Management”, Prentice Hall of India Pvt. Ltd., 2002.

Sharan, V., “International Financial Management”, Prentice-Hall of India, 2001.

Srinivasin, Venkat, and Yong H. Kim. “Payments Netting in International Cash Management: A Network Optimization Approach.” *Journal of International Business Studies* 17 (1986), pp. 1-20.

Vij Madhu, “Multinational Financial Management”, Excel Books, 2001.

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Lesson: 4	

INTERNATIONAL CAPITAL BUDGETING DECISION

STRUCTURE

4.0 OBJECTIVES

After reading this lesson, you should be able to-

- Describe nature and issues involved in international capital budgeting decision; and
- Understand and apply the techniques of evaluating MNCs capital budgeting decisions.

4.1 NATURE OF INTERNATIONAL CAPITAL BUDGETING DECISION

We know that the fundamental goal of the financial manager is shareholder wealth maximization. Shareholder wealth is created when the firm makes an investment that will return more in a present value sense than the investment costs. Perhaps the most important decisions that confront the financial manager are which capital projects to select. By their very nature, capital projects denote investment in capital assets that make up the productive capacity of the firm. These investments, which are typically expensive relative to the firm's overall value, will determine how efficiently the firm will produce the product it intends to sell, and thus will also determine how profitable the firm will be. In total, these decisions determine the competitive position of the firm in the product marketplace and the firm's long-run survival. Consequently, a valid framework for analysis is important. The generally accepted methodology in modern finance is to use the net present value (NPV) discounted cash flow model.

Past studies have shown that a firm that could source funds internationally rather than just domestically could feasibly have a lower cost of capital than a domestic firm because of its greater opportunities to raise funds. A lower cost of capital means that more capital projects will have a positive net present value to the multinational firm. Our objective in this lesson is to detail a methodology for a multinational firm to analyze the investment in a capital project in a foreign land. The methodology we present is based on an analytical framework formalized by Donald Lessard (1985). The APV methodology is an extension of the NPV technique suggested for use in analyzing domestic capital expenditures. As will be seen, the APV methodology facilitates the analysis of special cash flows that are unique to international capital expenditures.

Here, we assume that most readers of this lesson will already be familiar with NPV analysis and its superiority in comparison to other capital expenditure evaluation techniques as a tool for assisting the financial manager in maximizing shareholder wealth. Therefore, only a brief review of the basic NPV capital budgeting framework has been given in this lesson. Next, the basic NPV framework is extended into an adjusted present value (APV) model by way of analogy to the Modigliani-Miller equation for the value of a levered firm. Following this, the APV model is extended to make it suitable for use by a MNC analyzing a foreign capital investment.

4.2 DIFFICULTIES AND IMPORTANCE OF INTERNATIONAL CAPITAL BUDGETING DECISIONS

Multinational capital budgeting decisions are relatively more complex than domestic investment decisions because the international firms have to deal with issues related to, among others, exchange rate risks, expropriation risk, blocked funds, foreign tax regulations, political risk and differences between basic business risks of foreign and domestic projects. However, in spite of the complex problems of investing abroad, there is an increasing trend to set-up subsidiaries by MNCs and to have direct foreign investment by international firms in other countries. The major motivating factors for undertaking these investments are as follows: (i) Comparative cost advantage is a major factor in favour of foreign investments; (ii) Taxation is another vital economic/financial incentive to make such investments; (iii) Financial diversification, in terms of spreading the firm's risk over a wider range than just one nation, constitutes yet another economic motivation for multinational firms.

Foreign capital budgeting projects/decisions are more difficult to evaluate than domestic capital budgeting projects. For operational purposes, there

is a need to develop a conceptual framework that enables the set of factors mentioned above to be measured/reduced to a common denominator so that the various foreign investment projects under consideration can be evaluated on a uniform basis.

4.3 REVIEW OF DOMESTIC CAPITAL BUDGETING

The basic net present value (NPV) capital budgeting equation can be stated as:

$$NPV = \sum_{t=1}^{T} \frac{CF_t}{(A+K)^t} + \frac{TV_T}{(1+K)^T} - C_0 \qquad \ldots(1)$$

Where, CF_t = expected after-tax cash flow for year t; TV_T = expected after-tax terminal value, including recapture of working capital; C_0 = initial investment at inception; K = weighted-average cost of capital; T = economic life of the capital project in years.

The NPV of a capital project is the present value of all cash inflows, including those at the end of the project's life, minus the present value of all cash outflows. The NPV rule is to accept a project if NPV $\geq$ 0 and to reject it if NPV < 0.

For the purposes, it is necessary to expand the NPV equation. In capital budgeting, our concern is only with the change in the firm's total cash flows that are attributable to the capital expenditure. CF_t represents the incremental change in total firm cash flow for year t resulting from the capital project. Algebraically CF_t can be defined as:

$$CF_t = (R_t - OC_t - D_t - I_t)(1 - \tau) + D_t + I_t(1 - \tau) \qquad \ldots(2)$$

$$= NI_t + D_t + I_t(1 - \tau) \qquad \ldots(3)$$

$$= (R_t - OC_t - D_t)(1 - \tau) + D_t \qquad \ldots(4)$$

$$= NOI_t(1 - \tau) + D_t \qquad \ldots(5)$$

$$= (R_t - OC_t)(1 - \tau) + \tau D_t \qquad \ldots(6)$$

$= OCF_t (1 - \tau) + \tau D_t$ …(7)

$=$ nominal after-tax incremental cash flow for year t

Equation 2 presents a very detailed expression for incremental cash flow that is worth learning so that we can easily apply the model. The equation shows that CF_t is the sum of three flows, or that the cash flow from a capital project goes to three different groups. The first term, as Equation 2 shows, is expected income, NI_t, which belongs to the equity holders of the firm. Incremental NI_t is calculated as the after-tax, $(1 - \tau)$, change in the firm's sales revenue, R_t, generated from the project, minus the corresponding operating cash flows (expenses), OC_t, minus project depreciation, D_t, minus interest expense, I_t. The second term represents the fact that depreciation is a noncash expense, that is, D_t is removed from the calculation of NI_t only for tax purposes. It is added back because this cash did not actually flow out of the firm in year t. D_t can be viewed as the recapture in year t of a portion of the original investment, C_0, in the project. The last term represents the firm's after-tax payment of interest to debt-holders.

Equation 4 provides a computationally simpler formula for calculating CF_t. Since $I_t (1 - \tau)$ is subtracted in determining NI_t in equation 2 and then added back, the two cancel out. The first term in equation 4 represents after-tax net operating income, $NOI_t (1 - \tau)$, as stated in equation 5.

Equation 6 provides yet an even simpler formula for calculating CF_t. It shows the result from equation 4 of combining the after-tax value of the depreciation expense, $(1 - \tau) D_t$, with the before-tax value of D_t. The result of this combination is the amount τD_t in equation 6, which represents the tax saving due to D_t being a tax-deductible item. As summarized in equation 7, the first term in equation 6 represents after-tax operating

cash flow, OCF_t (1 - τ), and the second term denotes the tax savings from the depreciation expense.

4.4 THE ADJUSTED PRESENT VALUE MODEL (APV)

To continue on with our discussion, we need to expand the NPV model. To do this, we substitute equation 7 for CF_t in equation 1, allowing us to restate the NPV formula as:

$$NPV = \sum_{t=1}^{T} \frac{OCF_t(1-\tau)}{(1+K)^t} + \sum_{t=1}^{T} \frac{\tau D_t}{(1+K)^t} + \frac{TV_T}{(1+K)^t} - C_0 \qquad \ldots(8)$$

In a famous article, Franco Modigliani and Merton Miller (1963) derived a theoretical statement for the market value of a levered firm (V_l) versus the market value of an equivalent unlevered firm (V_u). They showed that

$$V_l = V_u + \tau Debt \qquad \ldots(8a)$$

Assuming the firms are ongoing concerns and the debt the levered firm issued to finance a portion of its productive capacity is perpetual, Equation 8a can be expanded as:

$$\frac{NOI(1-\tau)}{K} = \frac{NOI(1-\tau)}{K_u} + \frac{\tau I}{i} \qquad \ldots(8b)$$

where 'i' is the levered firm's borrowing rate, I = iDebt, and K_u is the cost of equity for an all-equity financed firm.

The average cost of capital can be stated as:

$$K = (1 - \lambda)K_l + \lambda i(1 - \tau) \qquad \ldots(9)$$

Where K_l is the cost of equity for a levered firm, and λ is the optimal debt ratio. In their article, Modigliani-Miller showed that K can be stated as:

$$K = K_u (1 - \tau\lambda) \qquad \ldots(9a)$$

Recall that Equation 2 can be simplified to equation 5. What this implies is that regardless of how the firm (or a capital expenditure) is financed, it will earn the same NOI. From Equation 9a, if $\lambda = 0$ (i.e. a levered firm), then $K_u > K$ and $I > 0$, thus $V_l > V_u$. For equation 8b to hold as an equality, it is necessary to add the present value of the tax savings the levered firm receives. The main result of Modigliani and Miller's theory is that the value of a levered firm is greater than an equivalent unlevered firm earning the same NOI because the levered firm also has tax savings from the tax deductibility of interest payments to bondholders that do not go to the government. The following example clarifies the tax savings to the firm from making interest payments on debt.

Exhibit 4.1: Comparison of cash flows available to investors

	Levered	**Unlevered**
Revenue	$ 100	$ 100
Operating costs	- 50	- 50
Net operating income	50	50
Interest expense	-10	-0
Earnings before taxes	40	50
Taxes @ 0.40	-16	-20
Net income	24	30
Cash flow available to investors	$24 + 10 = $ 34	$ 30

Example 4.1: Tax savings from interest payments. Exhibit 1 provides an example of the tax savings arising from the tax deductibility of interest payments. The exhibit shows a levered and an unlevered firm, each with sales revenue and operating expenses of $ 100 and $ 50, respectively. The levered firm has interest expense of $ 10 and earnings before taxes of $ 40, while the unlevered firm enjoys $ 50 of before-tax earnings since it does not have any interest expense. The levered firm pays only $ 16 in taxes as opposed to $ 20 for the unlevered firm. This leaves $ 24 for the levered firm's shareholders and $ 30 for the unlevered firm's

shareholders. Nevertheless, the levered firm has a total of $ 34 (= $ 24 + $ 10) of funds available for investors, while the unlevered firm has only $ 30. The extra $ 4 comes from the tax savings on the $ 10 before-tax interest payment.

By direct analogy to the Modigliani-Miller equation for an unlevered firm, we can convert the NPV equation 8 into the adjusted present value (APV) model:

$$APV = \sum_{t=1}^{T} \frac{OCF_t(1-\tau)}{(1+K_u)^t} + \sum_{t=1}^{T} \frac{\tau D_t}{(1+i)^t} + \sum_{t=1}^{T} \frac{\tau I_t}{(1+i)^t} + \sum \frac{TV_T}{(1+K_u)^T} - C_0 \qquad \ldots(10)$$

The APV model is a value-additivity approach to capital budgeting. That is, each cash flow that is a source of value is considered individually. Note that in the APV model, each cash flow is discounted at a rate of discount consistent with the risk inherent in that cash flow. The OCF_t and TV_T are discounted at K_u. The firm would receive these cash flows from a capital project regardless of whether the firm was levered or unlevered. The tax savings due to interest, τI_t, are discounted at the before-tax borrowing rate, i, as in equation 8b. It is suggested that the tax savings due to risky than operating cash flows if tax laws are not likely to change radically over the economic life of the project.

The APV model is useful for a domestic firm analyzing a domestic capital expenditure. If APV $\geq$ 0, the project should be accepted. If APV < 0, the project should be rejected. Thus, the model is useful for a MNC for analyzing one of its domestic capital expenditures or for a foreign subsidiary of the MNC analyzing a proposed capital expenditure from the subsidiary's viewpoint.

4.5 CAPITAL BUDGETING FROM THE PARENT FIRM'S PERSPECTIVE

The APV model as stated in equation 10 is not useful for the MNC in analyzing a foreign capital expenditure of one of its subsidiaries from the MNC's, or parent's, perspective. In fact, it is possible that a project may have a positive APV from the subsidiary's perspective and a negative APV from the parent's perspective. This could happen, for example, if certain cash flows are blocked by the host country from being legally remitted to the parent or if extra taxes are imposed by the host country on foreign exchange remittances. A higher marginal tax rate in the home country may also cause a project to be unprofitable from the parent's perspective. If we assume the MNC owns the foreign subsidiary, but domestic shareholders own the MNC parent, it is the currency of the parent firm that is important because it is that currency into which the cash flows mush be converted to benefit the shareholders whose wealth the MNC is attempting to maximize.

Donald Lessard (1985) developed an APV model that is suitable for a MNC to use in analyzing a foreign capital expenditure. The model recognizes that the cash flows will be denominated in a foreign currency and will have to be converted into the currency of the parent. Additionally, Lessard's model incorporates special cash flows that are frequently encountered in foreign project analysis. Using the basic structure of the APV model developed in the previous section, Lessard's model can be stated as:

$$\text{APV} = \sum_{t=1}^{T} \frac{\overline{S}_t OCF_t (1-\tau)}{(1+K_{ud})} + \sum_{t=1}^{T} \frac{\overline{S}_t \tau D_t}{(1+i_d)^t} + \sum_{t=1}^{T} \frac{\overline{S}_t \tau I_t}{(1+K_{ud})^T}$$

$$- S_0 C_0 + S_0 RF_0 + S_0 CL_0 - \sum_{t=1}^{T} \frac{\overline{S}_t LP_t}{(1+i_d)^t} \qquad \ldots(11)$$

Several points are noteworthy about equation 11. First, the cash flows are assumed to be denominated in the foreign currency and converted to the currency of the parent at the expected spot exchange rate, $\overline{S}_t$, applicable for year t. The marginal corporate tax rate, τ, is the larger of the parent's or the foreign subsidiary's because the model assumes that the tax authority in the parent firm's home country will give a foreign tax credit for foreign taxes paid up to the amount of the tax liability in the home country. Thus, if the parent's tax rate is the larger of the two, additional taxes are due in the home country, which equals the difference between the domestic tax liability and the foreign tax credit. On the other hand, if the foreign tax rate is larger, the foreign tax credit more than offsets the domestic tax liability, so no additional taxes are due. It is also noted that each of the discount rates has the subscript d, indicating that once the foreign cash flows are converted into the parent's home currency, the appropriate discount rates are those of the domestic country.

In equation 11, the OCF_t, represent only the portion of operating cash flows available for remittance that can be legally remitted to the parent firm. Cash flows earned in the foreign country that are blocked by the host government from being repatriated do not provide any benefit to the stockholders of the parent firm and are not relevant to the analysis. Additionally, cash flows that are repatriated through circumventing restrictions are not included here.

In case of domestic project analysis, it is important to include only incremental revenues and operating costs in calculating the OCF_t. An example will help illustrate the concept. A MNC may presently have a sales affiliate in a foreign country that is supplied by merchandise produced by the parent or a manufacturing facility in a third country. If a manufacturing facility is put into operation in the foreign country to satisfy local demand, sales may be larger overall than with just a sales

affiliate if the foreign subsidiary is better able to assess market demand with its local presence. However, the former manufacturing unit will experience lost sales as a result of the new foreign manufacturing facility; that is, the new project has cannibalized part of an existing project. Thus, incremental revenue is not the total sales revenue of the new manufacturing facility, but rather than amount minus the lost sales revenue. However, if the sales would be lost regardless, say because a competitor who is better able to satisfy local demand is gearing up, then the entire sales revenue of the new foreign manufacturing facility is incremental sales revenue.

Equation 11 includes additional terms representing cash flows frequently encountered in foreign projects. The term S_0RF_0 represents the value of accumulated restricted funds (of amount RF_0) in the foreign land from existing operations that are free up by the proposed project. These funds become available only because of the proposed project and are therefore available to offset a portion of the initial capital outlay. Examples are funds "whose use is restricted by exchange controls" or funds on which additional taxes would be due in the parent country if they are remitted. RF_0 equals the difference between the face value of these funds and their present value used in the next best alternative. The extended illustration at the end of this chapter will help clarify the meaning of this term.

The term $S_0CL_0 - \sum_{t=1}^{T} \frac{\overline{S}_t LP_t}{(1+i_d)^t}$ denotes the present value in the currency of the parent firm of the benefit of below-market-rate borrowing in foreign currency. In certain cases, a concessionary loan (of amount CL_0) at a below-market rate of interest may be available to the parent firm if the proposed capital expenditure is made in the foreign land. The host country offers this financing in its foreign currency as a means of attracting economic development and investment that will create employment for its citizens. The benefit to the MNC is the difference

between the face value of the concessionary loan converted into the home currency and the present value of the similarly converted concessionary loan payments (LP_t) discounted at the MNC's normal domestic borrowing rate (i_d). The loan payments will yield a present value less than the face amount of the concessionary loan when they are discounted at the higher normal rate. This difference represents a subsidy the host country is willing to extend to the MNC if the investment is made. It should be clear that the present value of the loan payments discounted at the normal borrowing rate represents the size of the loan available from borrowing at the normal borrowing rate with a debt service schedule equivalent to that of the concessionary loan.

We remember that to calculate the firm's weighted-average cost of capital, it is necessary to know the firm's optimal debt ratio. When considering a capital budgeting project, it is never appropriate to think of the project as being financed separately from the way the firm is financed, for the project represents a portion of the firm. When the asset base increases because a capital project is undertaken, the firm can handle more debt in its capital structure. That is, the borrowing capacity of the firm has increased because of the project. Nevertheless, the investment and financing decisions are separate. There is an optimal capital structure for the firm; once this is determined, the cost of financing is known and can be used to determine if a project is acceptable. We do not mean to imply that each and every capital project is financed with the optimal portions of debt and equity. Rather, some projects may be financed with all debt or all equity or a suboptimal combination. What is important is that in the long run the firm does not stray too far from its optimal capital structure so that overall the firm's assets are financed at the lowest cost. Thus, the interest tax shield term $S_t\tau I_t$ in the APV model recognizes the tax shields of the borrowing capacity created by the project regardless of how the project is financed. Handling the tax shields in any other way would bias the APV favourably or unfavourably, respectively, if the

project was financed by a larger or smaller portion of debt. This is an especially important point in international capital budgeting analysis because of the frequency of large concessionary loans. The benefit of concessionary loans, which are dependent on the parent firm making the investment, is recognized in a separate term.

Generality of the APV model

Lessard's APV model includes many terms for cash flows frequently encountered in analyzing foreign capital expenditures. However, all possible terms are not included in the version presented as equation 20. Nevertheless, the reader should now have the knowledge to incorporate into the basic APV model terms of a more unique nature for specific cash flows encountered in a particular analysis.

For example, there may be tax savings or deferrals that come about because of multinational operations. That is, the MNC may be able to shift revenues or expenses among its affiliates in a way that lowers taxes, or be able to combine profits or affiliates from both low and high tax environments in a manner that results in lower overall taxes. Tax deferrals are possible by reinvesting profits in new capital projects in low-tax countries.

Additionally, through interaffiliate transfer pricing strategies, licensing arrangements, royalty agreements, or other means, the parent firm might be able to repatriate some funds that are meant to be blocked, or restricted, by the host country. These cash flows are the counterpart to the unrestricted funds available for remittance as part of operating cash flows. As with the cash flows arising from tax savings or deferrals, it may be difficult for the firm to accurately estimate the size of these cash flows or their duration. Since these cash flows will exist regardless of how the firm is financed, they should be discounted at the all-equity rate.

One of the major benefits of the APV framework is the ease with which difficult cash flow terms, such as tax savings or deferrals and the repatriation of restricted funds, can be handled. The analyst can first analyze the capital expenditure as if they did not exist. Additional cash flow terms do not need to be explicitly considered unless the APV is negative. If the APV is negative, the analyst can calculate how large the cash flows from other sources need to be to make the APV positive, and then estimate whether these other cash inflows will likely be that large.

4.6 DATA REQUIREMENT FOR FOREIGN INVESTMENT DECISIONS

The necessary data indicating incremental cash outflows to undertake foreign investment decisions are to be measured and so also the incremental cash inflows in the foreign investment project is expected to yield during its projected economic useful life. These cash flows are to be discounted at an appropriate cost of capital to determine the net present value of the foreign capital budgeting project. The above would be more clear from the following:

Incremental cash outflows: These are incremental capital outlays that can be conveniently, wholly and exclusively identified with the proposed foreign investment project. In the case of independent subsidiaries, maintaining independent books of accounts, preparing financial statements in the local currency of the country where the subsidiary is located, the determination of cash outflows as well as cash inflows are akin to domestic capital budgeting decisions. Cash outflows are summarised in Format given below:

Cost of the proposed plant and equipment
Add: Shipping charges, custom duties, local transport etc.
Add: Installation cost of plant and equipment

Add:	Additional working capital requirement
Add:	Cost of technology transfer
Add:	Training cost of personnel (those required to work on the proposed plant), if any
Less:	Sale proceeds (duly adjusted for taxes) from the existing plant and equipment (in case of replacement of existing technology/plant and equipment)

Incremental cash inflows after taxes (CFAT): The determination of incremental CFAT is an important function for foreign capital budgeting projects in view of their more risky nature. Incremental cash inflows, like cash outflows, should be exclusively/wholly identifiable with the proposed project. For this purpose, it is very important to draw the distinction between the total CFAT, the proposed foreign investment project generates and incremental CFAT the firm eventually has. The major points of differences between the total and incremental cash flows are now explained.

(a) Cannibalisation: Cannibalisation refers to the lost sales of the firm's existing product(s) on account of launching a new project (or on account of proposed foreign investment). This happens when an MNC builds a plant overseas in a country to which it was hitherto exporting. The proposed/new investment project's sales/profits should be reduced by the lost sales/earnings to the extent that the sales of a new project or plant just replace other corporate sales of a parent company. Thus, in the context of capital budgeting decisions, the effect of cannibalisation is equal to the profit on lost sales that otherwise would not have been lost had the new/proposed project not been undertaken. The sales that would have been lost irrespective of the proposed project, say on account of competition from other MNCs, should obviously, not be reckoned as an adverse effect/impact of cannibalisation.

(b) Sales creation: It implies an increase in sales and is just the opposite of cannibalisation. It has a favourable effect on cash flows. It is possible that the proposed investment project overseas may result in the additional sales of the existing products of the parent company. In such an event, incremental profits/cash inflows yielded by such additional sales should be attributed to the proposed investment project. Therefore, credit should be given to the proposed investment project on account of sales creation.

(c) Opportunity cost: Opportunity cost is yet another important factor to be reckoned with in this regard. For example, rent foregone on account of the use of the factory/office space in the proposed project should be considered as cost on account of the new project. The current market value of the land and building that are used for undertaking a new project should also be counted as the cost of the project.

(d) Treatment of fixed overheads: In so far as the fixed overheads are concerned, only additional overheads need to be considered for determining cash flows since existing overheads are to be incurred irrespective of the proposed investment project. In operational terms, the allocation of existing fixed overheads (either of parent or an MNC) should be excluded.

(e) Fees and royalties: We should not charge the proposed investment project for various items such as legal counsel, management costs, training of personnel engaged by subsidiary by the parent and the like, (collectively referred to as fees and royalties) unless these costs are incurred additionally.

In nutshel, only incremental cash inflows after taxes accruing from investment abroad should constitute a part of the capital budgeting exercise. The capital budgeting analysis based on total CFAT would

overstate the profitability of the foreign project and run the risk of resulting in wrong decisions.

Example 2: An American multinational is planning to set up a subsidiary in India (where hitherto it was exporting) in view of the growing demand for its product and the competition from other MNCs. The initial project cost (consisting of plant and machinery including installation) is estimated to be US dollar 400 million; working capital requirements are estimated at $ 50 million. The American multinational follows the straight-line method or depreciation. Currently, it is exporting 2 million units every year at a unit price of US dollar 80, its variable cost per unit being US dollar 40.

The chief finance officer (CFO) of the firm has estimated, with respect to the project cost (measured in US dollars) as follows: (i) variable cost of production and sales, $ 20 per unit, (ii) additional fixed costs per annum at $ 30 million and the share of allocated fixed costs, $ 3 million, (iii) capacity of the plant set up in India is, to produce and sell 4 million units, (iv) the expected economic useful life of the plant is 5 years, with no salvage value, and (v) the firm's existing working capital investment in production and sales of 2 million units was $ 10 million.

The finance manager's report also mentions that exports will decrease to 1.5 million units in case the firm does not open the subsidiary in view of the presence of competing MNCs that are in the process of setting up their subsidiaries in India.

The US multinational is subject to 35 per cent corporate tax rate and its required rate of return for such projects is 12 per cent. Assuming that there will be no variation in the exchange rate between the two countries and that all profits can be repatriated without withholding taxes, advise this multinational regarding the financial viability of having a subsidiary in India.

Solution.

Statement showing Financial Viability *(figures in million)*

(i)	Incremental cash outflows		
	Cost of plant and machinery		$ 400
	Add: Additional working capital ($50 million – Release of existing working capital, $ 10 million)		40
			440
(ii)	Incremental cash inflows after taxes (CFAT):		
	a) Generated by subsidiary (t = 1 – 5)		
	Sales revenue (4 million units × $80)		320
	Less: Costs:		
	Variable costs (4 million units × $20)	$ 80	
	Additional fixed costs	30	
	Depreciation ($400 million/5 years)	80	190
	Earnings before taxes		130
	Less: Taxes (0.35)		45.5
	Earnings after taxes		84.5
	Add: Depreciation		80.0
	CFAT (t = 1 – 4)		164.5
	CFAT in 5th year		
	Operating CFAT	$ 164.5	
	Add: Release of working capital	40.0	204.5
	b) Generated by exports (t = 1 – 5)		
	Sales revenue[a] (1.5 million units × $80)		$ 120
	Less: Variable costs (1.5 million × $ 40)		60
	Contribution before taxes		60
	Less: Taxes (0.35)		21
	Contribution after taxes/CFAT		39
	c) Incremental CFAT due to subsidiary ($ 164.5 million - $ 39 million) [(a) – (b)]		125.5

(iii) Determination of NPV ($ million)

Years	**CFAT**	**PV factor (0.12)**	**Total PV**

1 – 4	$ 125.5	3.037	$381.14
5	165.5[b]	0.567	93.84
Gross present value			474.98
Less: Incremental cash outflows			440.00
Net present value			34.98

(a) In future, in the event of not having subsidiary, exports are to produce/sell 1.5 million units only.

(b) $125.5 million + Recovery of working capital, $40 million.

Recommendation: Since the NPV is positive, the firm is advised to go for its decision to set-up the subsidiary in India.

(f) Cash flows at subsidiary and parent level: In international capital budgeting decisions, we may find a substantial difference between the cash flows of the project at the subsidiary level and the level of the parent firm. The difference arises primarily due to tax regulations (affecting repatriation to the parent), exchange controls, inflation as well as interests rates affecting the exchange rate and so on. The difference between the two sets of cash flows also arises on account of the fact that the parent company usually charges management fees, fees for technology transfer and royalties on production/sales from its subsidiary units. As per the incremental analysis, these expenses are ignored. However, in estimating the true profitability of the subsidiary unit, these expenses merit recognition as these are project expenses at the level of subsidiary. These project expenses constitute cash inflows/incomes at the parent level and, hence, need to be counted. In fact, the principle (as enunciated by Shapiro) can be any cash inflow back to the investor (parent company in the present context), should be taken into account in cash inflows for the purpose of determining NPV of the project. In respect of other incomes, the parent should value only those cash flows that are, or can be, repatriated net of any transfer costs (such as withholding taxes/other taxes) as these are the only accessible funds available to it.

It also needs mention that assessing true profitability of an independent subsidiary company in terms of local currency where it is located, the determination of the CFAT is akin to a domestic project, as shown in Exhibit 2. Cash inflows to the parent company are depicted in Exhibit 3.

Exhibit 2

Particulars	Years			
	1	2	…	N
Sales revenue				
Less: Variable costs				
Less: Additional fixed costs				
Less: Management fees charged by parent				
Less: Royalties for patents, licences, brands, etc. charged by parent				
Less: Depreciation/amortisation				
Earnings before tax				
Less: Taxes				
Earnings after taxes				
Add: Depreciation/amortisation/non-cash expenses				
CFAT (operating)				
Add: Salvage value of the plant, if any (nth year)				
Add: Recovery or working capital (nth year or in earlier years)				

Exhibit 3. Cash inflows to the parent company

Particulars	Years			
	1	2	…	N
Dividends received				
Interest received				
Management fees				
Royalties received for patents, licences, brands, technology transfer, etc.				

Terminal cash flows (net of all types of taxes) such as repatriation of sale proceeds of plant, release of working capital, blocked funds not paid due to exchange control restrictions, etc. Repayment of loan Increase in cash profits (after tax) due to increased export sales of other products at parent MNC Less: Decrease in cash profits (after taxes) due to decrease in export sales

Besides quantifiable benefits, there may be other intangible/indirect benefits that might enhance the corporate's competitive position worldwide, contributing through increased sales of its other products. Sales accretion may also take place as the firm has a better knowledge of markets abroad. Though these benefits are non-quantifiable, they need to be reckoned, being strategic in nature, while evaluating foreign investment decisions. These qualitative benefits acquire added significance when the NPV of the project is either negligible/zero or negative by a marginal/small amount. In such situations, projects based on quantitative analysis is/may be rejected. Given the fact that non-quantifiable intangible benefits also contribute to cash flows (though non-measurable), the project that would otherwise have been rejected may be found worth accepting when such benefits are also taken into account.

Most of the items contained in Exhibit 3 are self explanatory. However, aspects related to taxes, repatriation of profits/blocked funds and exchange rate risk deserve more explanation.

(g) Impact of taxes: It is also important to know when and what amount of taxes are payable on foreign earnings since these earnings are subject to tax at more than one 'stage' as per the tax laws in vogue in many countries. First of all, the taxes are levied on the subsidiary company by the local government of a country where it is located, as per

the tax laws applicable to foreign companies. In general, corporate tax rates of foreign companies are different from those of domestic companies.

Further, subsidiary companies may be required to pay withholding taxes on dividends remitted to the parent. These dividends, being the income of the parent company, may be further subject to tax in the country where the parent company is located. This causes double taxation [in fact, it tantamounts to triple taxation in that the affiliate of the parent company is taxed at two times already- one when it earns and another when it remits such earnings in the form of dividends; payment of taxes by the parent on dividends received is the third stage at which the same income earned (by the subsidiary) is taxed].

Providing tax credit is an alternative to special tax treaties. Under the tax credit system the tax laws of the country permit the adjustment of taxes already paid by the subsidiary unit (located in other country) either fully or partially against the tax liability of the parent; as a result, the incidence of tax is reduced. Tax credit adjustment is illustrated in Example 3.

Example 3: Suppose that an American multinational has its subsidiary in a country where its income is taxed at 20 per cent. Withholding tax rate is 5 per cent. Assume further that corporate firms in US are subject to tax of 35 per cent; however, corporate firms having their subsidiaries abroad are allowed tax credit.

Determine the amount of tax credit available to a subsidiary having remitted US $ 4 million after-tax-earnings as dividends.

Solution

i) The subsidiary's before-tax earnings (EBT) are equivalent to $ 5 million (i.e., $4 million/(1-tax rate 0.2)].

ii) Taxes paid are ($5 million EBT × 0.20) = $1 million (corporate taxes). Withholding taxes paid are $4 million × 0.05 = $0.2 million. Thus, the total taxes paid are $1 million + $0.2 = 1.2 million.

iii) In USA, the taxes on before-tax income of a subsidiary would have been ($5 million × 0.35) = $1.75 million, out of which the subsidiary has already paid $ 1.2 million.

iv) The tax liability of the US firm, after tax credit adjustment of $1.2 million, will be $0.55 million only ($1.75 million - $1.2 million).

The subsidiary has got tax credit for the entire amount of $1.2 million paid abroad. In case the tax rate is 40 per cent (applicable to subsidiary abroad), the tax credit allowed in the US would then have been limited to 35 per cent ($1.75 million only).

(h) Repatriation of profits: There is a practice among third world countries to place restrictions on repatriation of profits, particularly in 'hard' currencies, in view of their limited foreign currency reserves. An equally important factor for restriction may be/is to make more funds available for development. As a result of such restrictions on the movement of foreign currency, the profits/funds available to the parent are reduced. This, in turn, may adversely affect the profitability of the foreign investment project, in particular when the currency of the country where the foreign investments are made is likely to depreciate.

To avoid the problem of blocked funds, MNCs and other international firms have innovated many ways/methods. The commonly used practices include transfer price adjustments on intercorporate sales, loan repayments and fee and royalty adjustments. Instead of repatriating profits, subsidiary companies, adopt/prefer these methods to remit more funds to the parent. In general, the modus operandi of repatriation of funds through these ways is less restrictive.

When the parent company intends to continue expanding the subsidiary's operations abroad (as they are profitable), repatriation restrictions on profits cease to be relevant as expansion of operation would require funds to be ploughed back in to the project instead of being remitted to the parent company.

(i) Estimate the future expected exchange rate: The financial manager must estimate the future expected exchange rates, $\overline{S}_t$, in order to implement the APV framework. One quick and simple way to do this is to rely on PPP and estimate the future expected spot rate for year t as:

$$\overline{S}_t = S_0(1+\pi_d)^t / (1+\pi_f)^t \qquad \ldots(12)$$

where π_d is the expected long-run annual rate of inflation in the (home) domestic country of the MNC and π_f is the rate in the foreign land.

PPP is not likely to hold precisely in reality. Nevertheless, unless the financial manager suspects that there is some systematic long-run bias in using PPP to estimate $\overline{S}_t$ that would result in a systematic over- or underestimate of the series of expected exchange rates, then PPP should prove to be an acceptable tool.

Example 4: Suppose for example 2 that the exchange rate of Re/US dollar during 0-1 year remains unchanged at Rs. 47/$. For the subsequent 4 years, it is forecasted that the rupee will depreciate vis-à-vis the US dollar by 2 per cent after the first year. As a result, the exchange rates for years 2-5 will be as follows:

Year 2	Rs. 47.94 (Rs. 47 × 1.02)
3	48.8988 (47.94 × 1.02)
4	49.8768 (48.8988 × 1.02)
5	50.8743 (49.8768 × 1.02)

Given the exchange rate of Rs. 47/$ in year 1, the equivalent Indian rupees of $ 125.5 million dollars will be ($ 125.5 million × Rs. 47) = Rs. 5898.5 million. This is the incremental operating CFAT in Indian currency, that the project is expected to generate in all the 5 years, as per Example 1 (given the assumption of no variation in exchange rate).

Assuming full repatriation every year, with no withholding taxes and full tax credit available in US, advise the US multinational regarding the financial viability of having a subsidiary in India.

Solution.

Determination of NPV *(Amount in million)*

Year	CFAT	Exchange rate (Re/$)	$ equivalent	PV factor (0.12)	Total PV
1	Rs. 5898.5	47.00	$ 125.50	0.893	$ 112.07
2	5898.5	47.94	123.04	0.797	98.06
3	5898.5	48.8988	120.63	0.712	85.89
4	5898.5	49.8768	118.26	0.636	75.21
5	5898.5	50.8743	115.94	0.567	65.74
5	1880.0*	50.8743	36.95	0.567	20.95
				Gross present value	457.92
				Less: Cash outflows	440.00
				Net present value	17.92

*Release of working capital will be equivalent to the working capital invested in Indian rupees in time zero period, that is, ($40 million at time zero period × Rs 47 exchange rate = Rs 1,880 million); its conversion in dollars will be at the exchange rate of year 5.

Recommendation: Since the NPV is positive at $ 17.92 million, the opening of a subsidiary in India continues to be financially viable.

Example 4 shows that the NPV with the unfavourable exchange rate has come down by nearly 50 per cent (from $34.98 million to $17.92 million). By interpolation, it implies that the weakening of the Indian rupee at more than 4 per cent in relation to the US dollar would have resulted in negative NPV.

Example 4 is further modified to make it more realistic by incorporating withholding taxes on repatriation of profits (which may be partial).

In brief, the relevant cash inflows for evaluating international capital budgeting decisions are those that can be repatriated to the parent company.

Example 5: Let us further assume that repatriation is allowed to the extent of 70 per cent of CFAT in the first 4 years, accumulated arrears of blocked funds is allowed at the year-end 5 and withholding taxes are 10 per cent. Determine the feasibility of having a subsidiary company in India.

Solution.

Determination of NPV *(Amount in million)*

Particulars	Year 1	2	3	4	5
1. CFAT	Rs. 5898.50	Rs. 5898.50	Rs. 5898.50	Rs. 5898.50	Rs. 5898.50
2. Less: Retentions (0.3 for t = 1-4)	1769.55	1769.55	1769.55	1769.55	–
3. Repatriation made	4128.95	4128.95	4128.95	4128.95	5898.50
4. Less: Withholding taxes (0.10)	412.90	412.90	412.90	412.90	589.85
5. Accessible funds to parent	3716.05	3716.05	3716.05	3716.05	5308.65
6. Add: Repatriation of blocked funds**	–	–	–	–	–
7. Add: Recovery of working capital	–	–	–	–	1880.00
8. Re/$ Exchange rate	47.0	47.94	48.8988	49.8768	50.8743
9. $ Equivalent (5/8)	$79.06	$77.51	$75.99	$74.50	$266.52

10. Multiply by PV factor (0.12)	0.893	0.797	0.712	0.636	0.567
11. Present value (9 × 10)	70.60	61.73	54.10	47.38	151.12
12. Total present value					384.93
13. Less: Cash outflows					440.00
14. Net present value					(55.07)

Recommendations: Since the NPV is negative, a subsidiary in India is not financially viable for US multinational.

Working note

****Repatriation of blocked funds, after withholding taxes** *(in million)*

Total CFAT (in years 1-4)	Rs. 23,594.0
Less: Repatriation (0.70 × Rs. 23,594 million)	16,515.8
Funds blocked	7,078.20
Less: Withholding taxes (0.10)	707.82
Funds repatriated (arrears of years 1-4) in year 5	6370.38

The example 5 clearly brings out that the finance manager should take into consideration total taxes, extent of repatriation allowed, blocked funds and exchange rate to determine the funds accessible to the parent. The accessible funds should then form the basis of determining NPV to assess true profitability/the financial viability of the foreign investment project.

(j) Expropriation and other political risk: Finally, expropriation risk merits consideration in foreign investment decisions as investment in a foreign country entails political risk. Political risk can range from mild interference to complete confiscation of all assets (referred to as outright expropriation). Included in interference are the laws warranting the employment of nationals at various positions, investment in environmental and social projects and restriction on the convertibility of currencies. Political risk can also arise from other reasons. For instance,

an incoming foreign government might not honour the previous government's agreement to permit convertibility or the foreign government might impose discriminatory/higher taxes, higher utility charges and so on.

In view of the fact that political risk has a serious influence on the overall risk of a foreign investment project, it merits realistic assessment. The MNCs/international firms should try to ascertain, *inter-alia*, the stability of the government in power, prevailing political wind in case of the change of power, the likely attitude of a new government towards foreign investment, economic stability of the country, fairness and equatibility of the courts/judiciary. Answers to these questions should provide considerable insight into the political risk involved in the foreign investment. Based on these parameters, some companies categorise countries according to their political risk; they avoid investment in countries classified in the undesirable category, irrespective of the potentials of earning higher rates of return.

4.7 THE CENTRALIA CORPORATION: A CASE STUDY

The Centralia Corporation is a Midwestern manufacturer of small kitchen electrical appliances. The market segment it caters to is the midprice range. It specializes in small and medium-size microwave ovens suitable for small homes, apartment dwellers, or office coffee lounges. In recent years it has been exporting microwave ovens to Spain, where they are sold through a sales affiliate in Madrid. Because of different electrical requirements in Western Europe, the ovens Centralia manufactured for the Spanish market could not be used elsewhere in Europe without an electrical converter. Thus, the sales affiliate concentrated its marketing effort just in Spain. Sales are currently 9,600 units a year and have been increasing at a rate of 5 per cent.

Centralia's marketing manager has been keeping abreast of integration activities in the European Union. Since the end of 1992, all obstacles to the free movement of goods, services, people, and capital within the 15 member states of the EU have been removed. Additionally, further integration promises a commonality among member states of rail track size, telephone and electrical equipment, and a host of other items. These developments have led the marketing manager to believe that a substantial number of microwave oven units could be sold throughout the EU and that the idea of a manufacturing facility should be explored.

The marketing and production managers have jointly drawn up plans for a wholly owned manufacturing facility in Zaragoza, which is located about 325 kilometers north-east of Madrid. Zaragoza is located just a couple hundred kilometers from the French border, thus facilitating shipment out of Spain into other EU countries. Additionally, Zaragoza is located close enough to the major population centers in Spain so that internal shipments should not pose a problem. A major attraction of locating the manufacturing facility in Zaragoza, however, is that the Spanish government has promised to arrange for a large portion of the construction cost of the production facility to be financed at a very attractive interest rate if the plant is built there. Any type of industry that will improve the employment situation would be a benefit, as the current unemployment rate in Spain exceeds 19 per cent. Centralia's executive committee has instructed the financial manager to determine if the plan has financial merit. If the manufacturing facility is built, Centralia will no longer export units for sale in Europe. The necessary information follows.

On its current exports, Centralia receives $ 185 per unit, of which $ 35 represents contribution margin. The sales forecast predicts that 28,000 units will be sold within the EU during the first year of operation and that this volume will increase at the rate of 12 per cent per year. All sales will be invoiced in Spanish pesetas. When the plant begins operation,

units will be priced at Ptas 25,900 each. It is estimated that the current production cost will be Ptas 20,500 per unit. The sales price and production costs are expected to keep pace with inflation, which is forecast to be 7 per cent per annum for the foreseeable future. By comparison, long-run US inflation is forecast at 3 per cent per annum. The current exchange rate is Ptas 140/$1.00.

The cost of constructing the manufacturing plant is estimated at Ptas 620,000,000. The borrowing capacity created by a capital expenditure of this amount is $ 1,770,000. The Madrid sales affiliate has accumulated a net amount of Ptas 70,000,000 from its operations, which can be used to partially finance the construction cost. The marginal corporate tax rate in Spain and the United States is 35 per cent. The accumulated funds were earned under special tax concessions offered during the initial years of the sales operation, and taxed at a marginal rate of 20 per cent. If they were repatriated, additional tax at the 35 per cent marginal rate would be due, but with a foreign tax credit given for the Spanish taxes already paid.

The Spanish government will allow the plant to be depreciated over an eight-year period. Little, if any, additional investment will be required over that time. At the end of this period, the market value of the facility is difficult to estimate, but Centralia believes that the plant should still be in good condition for its age and that it should therefore have reasonable market value.

One of the most attractive features of the proposal is the special financing the Spanish government is willing to arrange. If the plant is built in Zaragoza, Centralia will be eligible to borrow Ptas 450,000,000 at a rate of 6 per cent per annum. The normal borrowing rate for Centralia is 8 per cent in dollars and 14 per cent in pesetas. The loan schedule

calls for the principal to be repaid in eight equal installments. In dollar terms, Centralia uses 11 per cent as its all-equity cost of capital.

Here is a summary of the key points:

The current exchange rate in American terms is S_0 = 1/140 = $ 0.007143/Ptas.

π_t = 7%.

π_d = 3%.

The initial cost of the project in US dollars is

S_0C_0 = ($0.007143) Ptas 620,000,000 = $4,428,660.

For simplicity, we will assume that PPP holds and use it to estimate future expected spot exchange rates in American terms as:

$$\overline{S}_t = .007143(1.03)^t/(1.07)^t.$$

The before-tax incremental operating cash flow per unit at t = 1 is Ptas 25,900 – 20,500 = Ptas 5,400. The nominal contribution margin in year t equals Ptas 5,400 $(1.07)^{t-1}$.

Incremental lost sales in units for year t equals 9,600 $(1.05)^t$.

Contribution margin per unit of lost sales in year t equals $35 $(1.03)^t$.

The marginal tax rate, τ, equals the Spanish (or US) rate of 35 per cent.

Terminal value will initially be assumed to equal zero.

Straight-line depreciation is assumed; D_t = Ptas 77,500,000 = Ptas 620,000,000/8 years.

K_{ud} = 11%

I_c = 6%

I_d = 8%.

In exhibit 4 the present value of the expected after-tax operating cash flows from Centralia establishing the manufacturing facility in Spain is calculated. Column (a) presents the annual revenue in dollars from operating the new manufacturing facility. These are calculated each year by multiplying the expected quantity of microwave ovens to be sold times the year one unit sales price of Ptas 5,400. This product is in turn multiplied by the Spanish price inflation factor of 7 per cent. For example, for year t = 2 the factor is $(1.07)^{t-1}$ = (1.07). The peseta sales estimates are then converted to dollars at the expected spot exchange rates. Column (b) presents the annual lost sales revenues in dollars that are expected to result if the manufacturing facility is built and the parent firm no longer sells part of its production through the Spanish sales affiliate. These are calculated by multiplying the estimated quantity of lost sales in units by the current contribution margin of $35 per unit, which is in turn multiplied by a 3 per cent US price inflation factor. The incremental dollar operating cash flows are the sum of columns (a) and (b), which are converted to their after-tax value and discounted at K_{ud}. The sum of their present values is $4,038,144.

The present value of the depreciation tax shields τD_t is calculated in exhibit 5. The tax savings on the annual straight-line depreciation of Ptas 77,500,000 is converted to dollars at the expected future spot exchange rates and discountered to the present at the domestic borrowing rate of 8 per cent. The present value of these tax shields is $955,982.

Exhibit 4: Calculation of the present value of the after-tax operating cash flows

Year (t)	$\bar{S}_t$	Quantity	$\bar{S}_t$ ×Quantity × Ptas 5,400 × (1.07^{t-1}) (a) $	Quantity lost sales	Quantity lost sales × $35.00 × $(1.03)^t$ (b) $	$\bar{S}_t OCF_t$ (a + b) $	$\frac{\bar{S}_t OCF_t(1-\tau)}{(1+K_{ud})^t}$
1	.006876	28,000	1,039,651	(10,080)	(363,384)	676,267	396,012
2	.006619	31,360	1,199,350	(10,584)	(393,000)	806,350	425,394
3	.006371	35,123	1,383,449	(11,113)	425,022)	958,427	455,516
4	.006133	39,338	1,595,990	(11,669)	(459,675)	1,136,315	486,542

5	.005904	44,059	1,841,219	(12,252)	(497,120)	1,344,099	518,477
6	.005683	49,346	2,123,921	(12,865)	(537,652)	1,586,270	551,255
7	.005471	55,267	2,450,357	(13,508)	581,460)	1,868,897	585,110
8	.005266	61,899	2,826,476	(14,184)	(628,875)	2,197,601	619,838
							4,038,144

The present value of the benefit of the concessionary loan is calculated in Exhibits 6 and 7. Exhibit 6 finds the present value of the concessionary loan payments in dollars. Since the annual principal payment on the Ptas 450,000,000 concessionary loan is the same each year, the interest payments decline as the loan balance declines. For example, during the first year, interest of Ptas 27,000,000 (=.06 × Ptas 450,000,000) is paid on the full amount borrowed. During the second year interest of Ptas 23,625,000 (=.06 × (Ptas 450,000,000 – 56,250,000) is paid on the outstanding balance over year two. The annual loan payment equals the sum of the annual principal payment and the annual interest charge. The sum of the their present values in dollars, converted at the expected spot exchange rates, discounted at the domestic borrowing rate of 8 per cent, is $ 2,588,558. This sum represents the size of the equivalent loan available (in dollars) from borrowing at the normal borrowing rate with a debt service schedule equivalent to that of the concessionary loan.

Exhibit 7 concludes the analysis of the concessionary loan. It shows the difference between the dollar value of the concessionary loan and the equivalent dollar loan value calculated in Exhibit 6. The difference of $625,792 represents the present value of the benefit of the below market rate financing of the concessionary loan.

The present value of the interest tax shields is calculated in exhibit 8. The interest payments in column (b) of exhibit 8 are drawn from column (c) of exhibit 6. That is, we follow a conservative approach and base the interest tax shields on using the concessionary loan interest rate of 6 per cent. The concessionary loan of Ptas 450,000,000 represents 72.58 per cent of the project cost of Ptas 620,000,000. By comparison, the borrowing capacity created by the project is $1,770,000, which implies

an optimal debt ratio λ for the parent firm of 39.97% = $ 1,770,000/$4,428,660 of the dollar cost of the project. Thus, only 55 per cent (= 39.97%/72.58%) of the interest payments on the concessionary loan should be used to calculate the interest tax shields. at the domestic borrowing rate of 8 per cent, the present value of the interest tax shields is $ 116,676.

Exhibit 5: Calculation of the present value of the depreciation tax shields

Year (t)	$\bar{S}_t$	D_t Ptas	$\frac{\bar{S}_t r D_t}{(1+i_d)^t}$ $
1	.006876	77,500,000	172,696
2	.006619	77,500,000	153,927
3	.006371	77,500,000	137,185
4	.006133	77,500,000	122,278
5	.005904	77,500,000	108,993
6	.005683	77,500,000	97,142
7	.005471	77,500,000	86,590
8	.005266	77,500,000	77,172
			955,982

Exhibit 6: Calculation of the present value of the concessionary loan payments

Year (t)	$\bar{S}_t$ (a)	Principal payment (b) Ptas	l_t (c) Ptas	$\bar{S}LP_t$ (a) × (b + c) $	$\frac{\bar{S}_t 55_z l_t}{(1+i_d)^t}$ $
1	.006876	56,250,000	27,000,000	572,427	530,025
2	.006619	56,250,000	23,625,000	528,693	453,269
3	.006371	56,250,000	20,250,000	487,382	386,899
4	.006133	56,250,000	16,875,000	448,476	329,643
5	.005904	56,250,000	13,500,000	411,804	280,267
6	.005683	56,250,000	10,125,000	377,209	237,706
7	.005471	56,250,000	6,750,000	344,673	201,113
8	.005266	56,250,000	3,375,000	313,985	169,636
		450,000,000			2,588,558

Exhibit 7: Calculation of the present value of the benefit from the concessionary loan

$$S_0 CL_0 - \sum_{t=1}^{T} \frac{\overline{S}_t LP_t}{(1+i_d)^t} = \$\ 0.007143 \times \text{Ptas}\ 450{,}000{,}000 - 2{,}588{,}558 = \$\ 625{,}792$$

Exhibit 8: Calculation of the present value of the interest tax shields

Year (t)	$\overline{S}_t$ (a)	l_t (b) Ptas	λ/Project Debt ratio (c)	$\overline{S}_t 55\tau l_t$ (a×b×c×τ) $	$\frac{\overline{S}_t 55\tau 5_t}{(1+i_d)^t}$ $
1	.006876	27,000,000	0.55	35,738	33,091
2	.006619	23,625,000	0.55	30,102	25,808
3	.006371	20,250,000	0.55	24,835	19,715
4	.006133	16,875,000	0.55	19,923	14,644
5	.005904	13,500,000	0.55	15,343	10,442
6	.005683	10,125,000	0.55	11,077	6,980
7	.005471	6,750,000	0.55	7,109	4,148
8	.005266	3,375,000	0.55	3,421	1,848
					116,676

To calculate the amount of the freed-up restricted remittances it is first necessary to gross up the after-tax value of the Ptas 70,000,000 on which the Madrid sales affiliate has previously paid taxes at the rate of 20 per cent. This amount is Ptas 87,500,000 = Ptas 70,000,000/(1 – 0.20). The dollar value of this sum at the current spot exchange rate S_0 is $625,013 = $ 0.007143 (Ptas 87,500,000). If Centralia decided not to establish a manufacturing facility in Spain, the Ptas 70,000,000 should be repatriated to the parent firm. It would be required to pay additional taxes in the US in the amount of $ 93,752 = (0.35 – 0.20) $ 625,013. If the manufacturing facility is built, the Ptas 70,000,000 should not be

remitted to the parent firm. Thus, freed-up funds of $ 93,752 result from the tax savings, which can be applied to cover a portion of the equity investment in the capital expenditure.

The APV = $ 4,038,144 + 955,982 + 625,792 + 116,676 + 93,752 – 4,428,660 = $ 1,401,686.

There appears little doubt that the proposed manufacturing facility will be a profitable ventures for Centralia. Had the APV been negative or closer to zero, we would want to consider the present value of the after-tax terminal cash flow. We are quite uncertain as to what this amount might be, and, fortunately, in this case we do not have to base a decision on this cash flow, which is difficult at best to forecast.

4.8 SUMMARY

In spite of the complex problems of investing abroad, there is an increasing trend to set-up subsidiaries by MNCs and to have direct foreign investment by international firms in other countries. The major motivating factors for undertaking these investments are as follows: (i) Comparative cost advantage is a major factor in favour of foreign investments; (ii) Taxation is another vital economic/financial incentive to make such investments; (iii) Financial diversification, in terms of spreading the firm's risk over a wider range than just one nation, constitutes yet another economic motivation for multinational firms.

Foreign capital budgeting projects/decisions are more difficult to evaluate than domestic capital budgeting projects.

The basic net present value (NPV) capital budgeting equation can be stated as:

$$NPV = \sum_{t=1}^{T} \frac{CF_t}{(A+K)^t} + \frac{TV_T}{(1+K)^T} - C_0$$

For the purposes, it is necessary to expand the NPV equation. In capital budgeting, our concern is only with the change in the firm's total cash flows that are attributable to the capital expenditure. CF_t represents the incremental change in total firm cash flow for year t resulting from the capital project. Algebraically CF_t can be defined as:

$$CF_t = (R_t - OC_t - D_t - I_t)(1 - \tau) + D_t + I_t(1 - \tau)$$

The above equation presents a very detailed expression for incremental cash flow that is worth learning so that we can easily apply the model.

4.9 KEYWORDS

Adjusted Present Value (APV) A technique for capital budgeting that is similar to Net Present Value (NVP) but which considers difficult matters, if necessary, after dealing with easy-to-handle matters.

Net Present Value A capital budgeting method in which the present value of cash out flows is subtracted from the present value of expected future cash inflows to determine the Net Present Value of an investment project.

Capital Budgeting A technique for deciding whether to incur capital expenditure such as building a new plant or purchasing equipment.

Pay Back Period The length of time before the capital cost of an investment project has been recovered.

Foreign Subsidiary A foreign operation that is incorporated in the foreign country but owned by a parent company.

4.10 SELF ASSESSMENT QUESTIONS

1. Why is capital budgeting analysis so important to the firm?
2. What is the intuition behind the NPV capital budgeting framework?

3. Discuss what is meant by the incremental cash flows of a capital project.
4. Discuss the nature of the equation sequence, equations 15a to 15f.
5. What makes the APV capital budgeting framework useful for analyzing foreign capital expenditures?
6. Relate the concept of lost sales to the definition of incremental cash flows.
7. What problems can enter into the capital budgeting analysis if project debt is evaluated instead of the borrowing capacity created by the project?
8. What is the nature of a concessionary loan and how is it handled in the APV model?
9. What is the intuition of discounting the various cash flows in the APV model at specific discount rates?
10. In the Modigliani-Miller equation, why is the market value of the levered firm greater than the market value of an equivalent unlevered firm?
11. Discuss the difference between performing the capital budgeting analysis from the parent firm's perspective as opposed to the project perspective.
12. Define the concept of a real option. Discuss some of the various real options a firm can be confronted with when investing in real projects.

4.11 REFERENCES/SUGGESTED READINGS

Adler, Michael, "The Cost of Capital and Valuation of a Two-Country Firm", *Journal of Finance*, March 1974, pp. 119-132.

Apte, P.G.: Global Finance, Tata McGraw Hill, New Delhi, 2001.

Booth, Lawrence D., "Capital Budgeting Frameworks for the Multinational Corporation", *Journal of International Business Studies*, fall 1982, pp. 113-123.

Eun and Resnich: International Financial Management, Tata McGraw Hill, New Delhi, 2002.

Jain and Khan: Financial Management, Tata McGraw Hill, New Delhi, 2004.

Lessard, Donald R., "Evaluating International Projects: An Adjusted Present Value Approach", in Donald Lessard (ed.), *International Financial Management: Theory and Application*, 2nd ed., Wiley, New York, 1985.

Shapiro, Alan C., "Capital Budgeting for the Multinational Corporation", *Financial Management*, Spring 1978, pp. 7-16.

Tax Aspects of Transfer Pricing within Multinational Enterprises: The United States Proposed Regulations. Paris: Organization for Economic Co-operation and Development, 1993.

Vij, Madhu: International Financial Management, Excel Books, New Delhi, 2001.

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FOREIGN INVESTMENT DECISION

STRUCTURE

5.0 OBJECTIVES

After reading this lesson, you should be able to-

- Understand meaning, rationale and factors affecting international portfolio investment decisions;
- Calculate return on bond and equity investments in foreign countries; and
- To know the application of capital asset pricing model (CAPM) in multinational setting.

5.1 INTRODUCTION

Raising funds from different sources is the most important function of finance. Earlier companies used to raise funds available in their domestic territories either from equity or from debt sources. To achieve the objective of wealth (value) maximisation, the companies try to have a trade off (equilibrium) between return and risk associated with investments. With the globalisation process at its peak, capital markets have become integrated and raising of funds has gone easy. Now a days foreign national can raise funds in any currency from any part of the globe. In fact due to easy accessibility of cheap sources of funds in the global markets, the investment decisions have become complexed. Also, technological advancement and automated systems of investment have made international investment attractive from the point of view of the investors as well as the opportunity seekers. On the other hand, due to risk diversification opportunity, international investment is gaining importance.

5.2 RATIONALE OF FOREIGN INVESTMENT DECISIONS

The basic question that why investment is done is answered by the motive of investment i.e. return. Return constitutes two components: yield (regular returns) and the capital appreciation (gain).

Return = Yield + Capital gain

In case of equity, yield is the amount of dividend distributed by the firm and capital appreciation is the benefit of difference in the market value and the initial value of the capital. In equity investment, the yield is not regular and dependent on so many factors. The return in case of bond/debenture consists of two parts i.e. regular interest payments and the redeemed value. Now the question arises that why corporate raises funds from the international capital markets? The right answer is that

capital markets in multinational setting provide opportunities to park the funds in different markets to get risk minimised due to diversification of funds. If at one point of time, an investor sees an opportunity in any country's capital market, then definitely he will invest in that market and divest from other places from where there are bleak chances of returns.

Sometimes, in some countries there are heavy taxes on returns (dividend) but on the other hand, there are tax heavens. So, funds keep on moving from unattractive tax locations to attractive tax locations (known as tax heavens). Because of this tax differential, there exists an opportunity to diversify the funds and get the advantage.

5.3 FACTORS AFFECTING FOREIGN PORTFOLIO INVESTMENT DECISIONS

There are a number of factors which affect the equity investment by an MNC. Presence of differential tax structures on ordinary income and capital gain can reinforce the bias in favour of foreign equities if exchange gains are treated as capital gains, and capital gains are taxed at lower rates. Portfolio theory suggests that an investor wants to have a trade off between the expected return and risk associated with the portfolio. Any investor selects portfolio according to expected returns and the correlation between returns and can achieve minimum return to a given level of expected return on portfolio or maximum return on a given level of risk attached with the portfolio. That is why he diversifies the risk by changing portfolios in different time. It has been empirically tested that internationally diversified portfolio is less risky than the domestic portfolio. A risk averse investor would like to invest in a well diversified portfolio instead of holding a single or few securities from the domestic market. The extent to which the risk is reduced depends upon the correlation between the return of earlier held securities. Since many companies have accessed the global equity market primarily for

establishing their image as global companies, the main consideration is volatility and post-issue considerations related to investor relations, liquidity of the stock (or instruments based on the stock such as depository receipts which are listed and traded on foreign stock exchanges) in the secondary market, and regulatory matters related to reporting and disclosure norms. If the capital markets are integrated then a given stock will be priced identically by all investors and there will be no advantage in choosing one market over other apart from cost of issue consideration. On the other hand, in segmented markets, the return will vary from one market to another. Another factor is the issue cost for preparing for an equity issue particularly for developing country issuers unknown to developed country investors. In general, in large domestic markets such as US and Japan issue costs are low. Also, due to withholding taxes on dividend paid to non-residents, cost of issue is increased thereby making the foreign shareholding less attractive. There is always a volatility resulting from unanticipated changes in exchange rate. It is always possible to diversify internationally without adding to exchange rate exposure i.e. by hedging in the forward markets. In addition to this the factors which affect investment decision are: interest rates in different countries; purchasing power party in various countries; choice of country stocks; efficiency of capital markets and savings rates etc.

5.4 CALCULATION OF RETURN IN BOND INVESTMENT

As far as total return from a bond invested in a foreign country is concerned, three factors come into picture: interests-income, capital gains (losses) and currency gains (losses).

The one-period total dollar return on a foreign bond investment $r_{\$}$ can be calculated as follows:

Dollar return = Local currency return × Currency gains (losses)

$$1 + r_{\$} = \left[1 + \frac{B(t) - B(0) + C}{B(0)}\right](1 + g)$$

where, B (t) = Local currency (LCs) bond price at time t; C = Local currency coupon income; g = Percentage change in dollar value of the local currency.

e.g. let us assume that initial bond price in LC 95, the coupon income is LC 8, the end of period bond price is LC 97, and the local currency appreciated by 3% against the dollar during the period then

$$r_{\$} = \left[1 + \frac{(97 - 95 + 8)}{95}\right](1 + 0.03) - 1$$

= (1.105) (1.03) – 1 = 13.8%

Now, the one period total dollar return on a foreign stock investment $R_{\$}$ can be calculated as follows:

Dollar return = Local currency return × Currency Gain (Losses)

$$1 + R_{\$} = \left[1 + \frac{P(t) - P(0) + Div}{P(0)}\right](1 + g)$$

where, P (t) = Local currency stock price at time 't'; Div = Local currency dividend income.

For example, suppose the beginning stock price is LC 50, the dividend income is LC 1, the end-of-period depreciated by 5%against the dollar during the period.

Then,

$$R_{\$} = \left[1 + \frac{(48 - 50 + 1)}{50}\right](1 - 0.05) - 1$$

= (0.98) (0.95) – 1

= - 6.9%

5.5 CALCULATION OF RETURN ON EQUITY

An investor wants to have return on equity investment. The return consists of dividend and capital gain. In case of a domestic investment, suppose $\rho^{Rs.}$ is the expected annual dividend yield on the security and $C^{Rs.}$ is the change in the market value of the security, then the value of one unit of domestic currency invested in domestic equity with dividend reinvested will provide the expected domestic currency value of the stock after n-period given by:

$$A_1 = A (1 + \rho^{Rs} + C^{Rs}) \qquad \ldots(1)$$

If the same amount is invested in US stock market, firstly domestic currency (Rs.) has to be converted into dollars and the equity purchased. Let us assume that the expected annual dividend of US equity $\rho^{\$}$ and the annual change in the value of the stock is $C^{\$}$, then the expected foreign currency value of the stock after n-period is given by:

$$A_2 = (A/S) (1 + \rho^{\$} + C^{\$})$$

If after n-years, the expected spot rate is S_n^e, then the expected total receipt from this investment will be:

$$A_2 = A \left(S_n^e / S\right)\left(1 + \rho^{\$} + C^{\$}\right) \qquad \ldots(2)$$

Further suppose that $(\overline{S})$ is the expected annual change in exchange rate, then

$S_n^e = S\left(1 + \overline{S}\right)^n$ and therefore,

$$\left[\frac{S_n^e}{S}\right] = \left(1 + \overline{S}\right)^n$$

Putting this value in equation (2) we get-

$A_2 = A\ (1 + \overline{S})^n\ (1 + \rho^{\$} + C^{\$})^n$ …(3)

If foreign market is to be an equity investment market, then,

$A_2 > A_1$

or $\left[\left(1 + \overline{S}\right)^n \left(1 + \rho^{\$} + C^{\$}\right)^n > \left(1 + \rho^{Rs} + C^{Rs}\right)^n\right]$

or $(1 + \overline{S})\ (1 + \rho^{\$} + C^{\$}) > (1 + \rho^{Rs} + C^{Rs})$

or $1 + \overline{S} + \rho^{\$} + C^{\$} + \overline{S}\rho^{\$} + \overline{S}C^{\$} > (1 + \rho^{Rs} + C^{Rs})$

or $\overline{S} + \rho^{\$} + C^{\$} + \overline{S}\ \rho^{\$} + \overline{S}\ C^{\$} > \rho^{Rs} + C^{Rs}$ …(3)

If $\overline{S}$, $\rho^{\$}$ and $C^{\$}$ are small, then

$S\rho^{\$}$ and $\overline{S}\,C^{\$} \to 0$ in the limit, then in this case the equation (3) becomes

$S + \rho^{\$} + C^{\$} > \rho^{Rs} + C^{Rs}$

Or $S > (\rho^{Rs} - \rho^{\$}) + (C^{Rs.} - C^{\$})$ … (4)

It is clear that if inequity (4) holds true, then the investment in US stock would provide higher rate of return even if the expected annualised dividend and capitalisation are lower than the Indian dividend and capitalisation.

5.5.1 Taxation aspect of foreign equity investment

It is pertinent to consider tax aspect on foreign investment, because generally there is capital gains tax on capitalisation and ordinary income

tax on dividend yield. Therefore, the impact of tax in different countries should be analysed. When there exists a favourable capital gains tax, the investors will prefer investment in strong currency countries i.e. countries whose currencies are expected to appreciate. The expected approximate expected average annual after tax returns to domestic investors in US stock is given as:

$$\overline{S}(1 - \tau_k) > (1 - \tau_y)(\rho^{Rs} - \rho^{\$}) + (1 - \tau_y)(C^{Rs} - C^{\$})$$

$$\overline{S} > (1 - \tau_y)/(1 - \tau_k)[(\rho^{Rs} - \rho^{\$})] + (C^{Rs} - C^{\$}) \quad \ldots (5)$$

Where, τ_k = capital gains tax

τ_y = Tax on dividend income.

Assuming that the tax rates are same in both countries.

When a unit of rupee is invested in foreign equity, the return is given by:

$1 + R_{fe} = (1 + S)(1 + \rho^{\$} + C^{\$})$, where R_{fe} = Return on foreign equity.

Here, exchange rate and market capitalisation should be taken into consideration for calculation of return on equity.

Suppose an equity is purchased at price P_0 and sold at P_1, the equity earns $\rho^{\$}$ as dividend and the equity is held for some period, the return for the period held is given by-

$$1 + R_{fe} = [1 + (P_1 - P_0 + \rho^{\$})/P_0](1 + S)$$

After tax returns are:

$$1 + R_{fe} = [1 + \{(P_1 - P_0)(1 - \tau_k) + \rho^{\$}(1 - \tau_y)/P_0\}](1 + S(1 - \tau_k))$$

5.5.2 International diversification

Risk is nothing but variability in expected return, while calculating risk from a foreign equity the investors must take into consideration three components: the variability of return in local (domestic), currency; fluctuations in the exchange rate; the association between the two-covariance risk mentioned above.

Let R_{IN} denotes the return in rupee terms from an Indian equity share. From US investors' point of view, the dollar return from this investment, is denoted by

$$E(\rho_{US}) = E(R_{IN}) + E\left(\hat{S}\right) = \delta_{IN} + \alpha_{1N} + \hat{S}^{e}$$

$$Var(\rho_{US}) = Var(R_{IN}) + Var(\hat{S}) + 2\,Cov(R_{IN}, \hat{S})$$

Where, δ_{IN} – Dividend yield in Indian Rupee

α_{IN} = Capital gain in Indian Rupee

$\hat{S}^{e}$ = Exchange rate

Now in an internationally diversified portfolio: The total risk of such a portfolio can be broken in following three components:

1. Exchange rate risk: Variance of changes in exchange rates of the component currencies in terms of the base currency and covariance among these.

2. Local returns risk: Variances of local rates of return and covariance among these.

3. Local returns-exchange rates covariance risk: Covariance between each exchange rate change and each local return.

5.6 CAPITAL ASSET PRICING MODEL (CAPM) IN MULTINATIONAL SETTING

There are two types of risk: one is unsystematic i.e. which can be diversified by investing in different portfolios and the second component which occurs due to market movement and can not be diversified is called systematic risk. CAPM model developed by Sharpe (1964), Lintner (1965) and Mossin (1965) gives relationship between expected return over a risky asset in an efficient portfolio. Its starting point is the mean variance portfolio selection model given by Markowitz (1952).

A portfolio is said to be efficient if among all possible portfolios with the same excess return it has the lowest variance. Again, there are two capital markets one is integrated and the other is segmented. If capital assets are priced on the basis of integrated capital market environment then additional (excess) returns are just sufficient to compensate the systematic risk of investment. Moreover, if both the financial markets and commodity markets are integrated, the Fischer equation will be satisfied and therefore the rates of return in integrated markets tend to be appropriate for the risk of these stocks, there are no additional gains in international investments.

On the other hand if the assets are priced on the basis of segmented capital market, the investor will get higher returns relative to the risk. Since, the market is segmented, therefore, the returns are in accordance with the systematic risk of the domestic environment. If an investor has the ability to create a segmented environment, he will gain from international diversification of portfolio.

The domestic variant of CAPM is given as:

$$R_j^e = R_f + \beta \left(\left(R_m^e - R_f\right)\right) \qquad \ldots (6)$$

where R_j^e = expected required rate of return on security or portfolio j; R_f = Risk free rate of return (interest rate)

R_m^e = expected market return on market portfolio.

β is systematic risk which can not be diversified.

As new securities are added to the portfolio, the marginal addition to the expected required rate of return will become smaller and reach at a level when diversification would not be beneficial for the investor.

To measure β three factors come into picture:

1. The variance of the market portfolio.

2. The variability of the returns of the project.

3. The correlation between the variability of returns on the project and the variability on market portfolio.

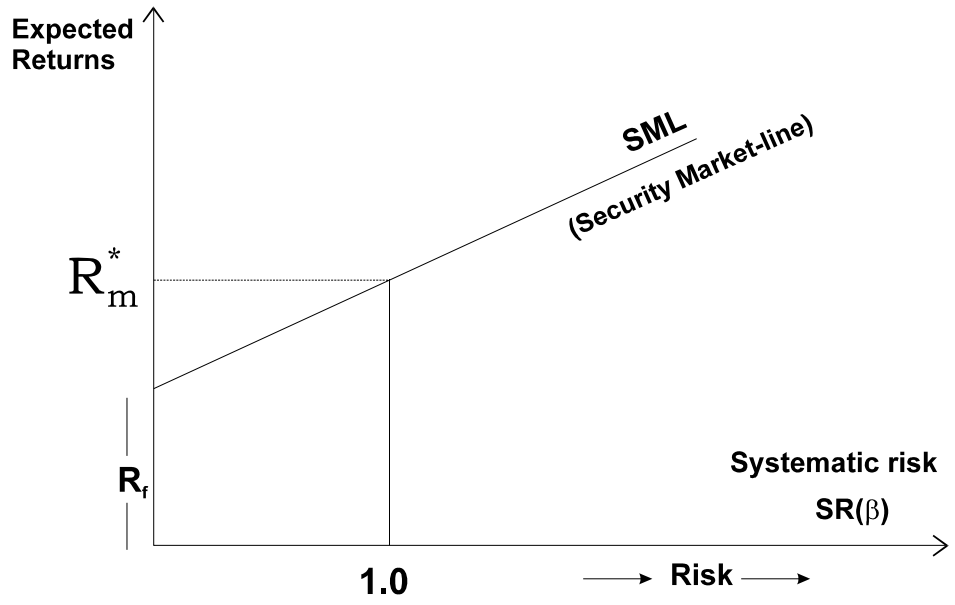

Fig. 5.1

SR = Systematic risk = $\beta = \frac{\text{Cov.}(R_j, R_m)}{\text{Var.}(R_j)}$

R_f = Risk free return.

R_j = Return on security j.

R_m^* = Return on market portfolio.

Fig. 5.1 shows the movement of expected returns on y-axis and systematic risk (β) on X axis.

Now, the investor has to choose efficient portfolio. For this, the interpretation of R_f and R_m depends on the integrated or segmented capital market.

If the markets are internationally integrated then the expected returns and the prices of stocks would be determined by undiversifiable risk of each investment in the context of the world market portfolio as follows:

$$R_j^e = r + \beta_d^w \left(R_w^e - r\right)$$

where $\beta_d^w = \rho_{(j,w)} \times \left(\sigma_j . \sigma_w / \sigma_w^2\right)$

$\rho_{(j,w)}$ = Correlation coefficient between the portfolio or project in country j and world market portfolio.

σ_j = Standard deviation of country 'j' portfolio or project.

σ_w = standard deviation of the world market portfolio. In case of segmented capital markets as per CAPM, the required return on security is the sum of risk free rate and risk premium that is a linear function of the systematic risk.

$$R_j^e = R_f + \beta_d^f \left(R_m^e - R_f\right)$$

where β_d^f = Cov. (R_j, R_m)/Var (R_m) = β of the foreign market in terms of domestic segmented market.

R_j^e = expected required return on portfolio j.

R_f = risk free return.

R_m^e = Expected market return on portfolio j.

$\sigma_{i,w}$ = Cov. (R_j, R_m) = Cov. between security j and market m.

$\sigma_m^2 = \text{Var}(k_m)$

$\beta_d^f = (\rho_d^f . \sigma_d \sigma_f) / \sigma_d^2 = (\rho_d^f \sigma_f) / \sigma_d$

Low value of β of foreign asset shows that either correlation between the domestic market and foreign market is low or that standard deviation of foreign market is low relative to the S.D. of the US market.

5.6.1 A mathematical derivation of efficient portfolio

The condition for efficient portfolio is

$E[(r_i) - r_f] / \text{Cov}(r_i, r_p) = \theta$ for all risky assets i

The portfolio consists of the risk free asset with return r_f and risky assets A_1 and A_2 with returns r_1 and r_2. These are random variables, while r_f is known with certainty. The proportions of the total portfolio invested in these assets are w_f, w_1 and w_2 with

$w_f + w_1 + w_2 = 1$

The return on the portfolio is

$r_p = w_f r_f + w_1 r_1 + w_2 r_2$

The expected return is

$E(r_p) = E(w_f r_f + w_1 r_1 + w_2 r_2) = w_f r_f + w_1 E(r_1) + w_2 E(r_2)$

The expected excess return – excess over the risk-free rturn- on the portfolio is

$E(r_p) - r_f = w_1 E(r_1) + w_2 E(r_2) - (1 - w_f) r_f$

$= w_1 E(r_1) + w_2 E(r_2) - (w_1 + w_2) r_f$

$= w_1 [E(r_1) - rf] + w_2 [E(r_2) - rf]$

Next, consider the variance of the portfolio return.

$Var(r_p) = Cov(r_p, r_p)$

$= Cov(w_f r_f + w_1 r_1 + w_2 r_2, r_p)$

$= w_f \, Cov(r_f, r_p) + w_1 \, Cov(r_1, r_p) + w_2 \, Cov(r_2, r_p)$

$= w_1 \, Cov(r_1, r_p) + w_2 \, Cov(r_2, r_p)$

Recall that r_f is not a random variable and hence $cov(r_1, r_p) = 0$. An efficient portfolio is one that has the highest return for a given level of risk or lowest risk for a given level of return. The problem of determining an efficient portfolio can be formulated as follows:

Maximise $[E(r_p) - r_f]$

Subject to $Var(r_p) = A$

Where A is some specified positive constant.

This can be stated as

Max $\{w_1 [E(r_1) - r_f] + w_2 [E(r_2) - r_f]$

S.T. $w_1 \text{ cov } (r_1, r_p) + w_2 \text{cov}(r_2, r_p) = A$

From the Lagrangean

$$L = w_1[E(r_1) - r_f] + w_2[E(r_2) - r_f] + \theta [A - w_1 \text{cov } (r_1, r_p) + w_2 \text{ cov } (r_2, r_p)]$$

The necessary conditions for maximisation of returns subject to a given level of risk are

$$\partial L/\partial w_1 = [E(r_1) - r_f] - \theta \text{ cov } (r_1, r_p) = 0$$

$$\partial L/\partial w_2 = [E(r_2) - r_f] - \theta \text{ cov } (r_2, r_p) = 0$$

which leads to

$$[E(r_1) \ \ r_f]/\text{cov } (r_1, r_p) = \theta, \text{ and}$$

$$[E(r_2) - r_f)/\text{cov } (r_2, r_p) = \theta$$

This is the condition which characterises an efficient portfolio as given in the text.

5.6.2 A mathematical approach to two country CAPM

Consider the two country-Germany and US- model. Extending the one-country CAPM, the equilibrium expected excess return on asset *i* measured in EUR is given by

$$E[r_i - r] = \theta \text{ cov}[r_i, r_w] + \delta \text{ cov}[r_i, \hat{S}]$$

The parameters θ and δ are prices of world market and exchange rate covariance risks, and r_w is the return on the world market portfolio measured in EUR, and r is the risk-free rate in EUR (e.g. German T-bills).

The two benchmark portfolios are: (1) The world market portfolio; and (2) The foreign riskless asset. To operationalise the two country CAPM, we must estimate θ and δ.

Consider the market portfolio:

$$E[r_w - r] = \theta \, cov[r_w, r_w] + \delta \, cov[r_w, \hat{S}]$$

$$= \theta \, var[r_w] + \delta \, cov[r_w, \hat{S}]$$

Consider a foreign, that is, US T-bill

$$E[r^* + \hat{S} - r] = \theta \, cov[\hat{S}, r_w] + \delta \, cov(\hat{S}, \hat{S})$$

$$= \theta \, cov[\hat{S}, r_w] + \delta \, var(\hat{S})$$

R*: Risk-free rate in the other currency (e.g., USD)

These two equations can be used to estimate θ and δ.

$$E(r_w - r) = \theta \, var(r_w) + \delta \, cov(r_w, \hat{S})$$

$$E(r^* + \hat{S} - r) = \theta \, cov(\hat{S}, r_w) + \delta \, var(\hat{S})$$

This is written in matrix notation as:

$$\begin{bmatrix} var(r_w) & cov(r_w, \hat{S}) \\ cov(\hat{S}, r_w) & var(\hat{S}) \end{bmatrix} \begin{bmatrix} \theta \\ \delta \end{bmatrix} = \begin{bmatrix} E(r_w - r) \\ E(r^* + \hat{S} - r) \end{bmatrix}$$

The solution is given by

$$\begin{bmatrix} var(r_w) & cov(r_w, \hat{S}) \\ cov(\hat{S}, r_w) & var(\hat{S}) \end{bmatrix}^{-1} \begin{bmatrix} E(r_w - r) \\ E(r^* + \hat{S} - r) \end{bmatrix} = \begin{bmatrix} \theta \\ \delta \end{bmatrix}$$

The two sources of risk are world market and the exchange rate. The asset now has two 'betas'- Correlation with world market and with the exchange rate.

Resulting two-country CAPM is

$$E(r_i - r) = \beta_i (r_w - r) + \gamma_i E(r^* + \hat{S} - r)$$

Assets' beta and gamma have to be jointly estimated from a multiple regression with historical data

$$r_i = \alpha_i + \beta_i r_w + \gamma_i \hat{S} + u_i$$

The OLS estimates are

$$\begin{bmatrix} \beta_i \\ \gamma_i \end{bmatrix} = \begin{bmatrix} var(r_w) & cov(r_w, \hat{S}) \\ cov(r_w, \hat{S}) & var(\hat{S}) \end{bmatrix}^{-1} \begin{bmatrix} cov(r_i, r_w) \\ cov(r_i, \hat{S}) \end{bmatrix}$$

Recall that

$$E(r_i - r) = \begin{bmatrix} cov(r_i, r_w) & cov(r_i, \hat{S}) \end{bmatrix} \begin{bmatrix} \theta \\ \delta \end{bmatrix}$$

Substitute for θ and δ the expression derived above.

$$E(r_i - r) = \begin{bmatrix} cov(r_i, r_w) \\ cov(r_i, \hat{S}) \end{bmatrix} \begin{bmatrix} var(r_w) & cov(r_w, \hat{S}) \\ cov(\hat{S}, r_w) & var(\hat{S}) \end{bmatrix}^{-1} \begin{bmatrix} E(r_w - r) \\ E(r^* + \hat{S} - r) \end{bmatrix}$$

Which leads to

$$E(r_i - r) = \frac{\begin{bmatrix} \beta_i & \gamma_i \end{bmatrix}}{\begin{bmatrix} E(r_w - r) \\ E(r^* + \hat{S} - r) \end{bmatrix}} = \beta_i E(r_w - r) + \gamma_i E(r^* + \hat{S} - r)$$

This is the two-country CAPM.

5.7 SUMMARY

International investment decisions are complex in nature. The complexities arise due to differing tax structure on yield and capital gains. The fluctuations in foreign currency support the view that domestic currency has an influence on the return on assets. Though with

the help of international diversification risk can be minimised, yet deciding efficient portfolio in segmented and integrated markets is quite complicated exercise. By applying pure mathematical derivations and tools it is easy to calculate returns. The CAPM when extended to multicountry's context can also help in constructing efficient portfolio.

5.8 KEYWORDS

Foreign Direct Investment (FDI) Investment in a foreign country that gives the MNC a measure of control.

Diversification of the Market A strategy for managing operating exposure in which a firm diversifies the market for its product. Thus, exchange rate changes in one country may be off-set by opposite exchange rate changes in another.

Portfolio Risk Diversification Portfolio risk is minimized by investing in multiple securities which do not have strong correlations between one another.

Primary Market The market in which new securities issues are sold to investors. In selling the new securities, investment bankers can play a role either as a broker or a dealer.

Foreign Exchange Risk The risk of facing uncertain future exchange rates.

5.9 SELF ASSESSMENT QUESTIONS

1. Discuss the diversification principle in the context of foreign investment vis-à-vis domestic investment?

2. Explain various factors determining return on securities in different countries.

3. How do you calculate the rate of return on foreign bond. Suppose 'd' represents domestic market and 'f' foreign market and r_d = 10%, r_f = 8%. Further suppose foreign currency appreciates by 2% and corporate income tax rate r_y = 25% and the capital gains tax T = 12% in both the countries, then identify the market for investment.

4. Explain the factors affecting risk measurement in international investment?

5. What do you know by efficient portfolio in international financial management? Discuss mathematical interpretation of the concept.

6. How can you calculate required rate of return on international investment in integrated and segmented capital markets.

7. Explain the Capital Asset Pricing Model (CAPM) in two country context.

5.10 REFERENCES/SUGGESTED READINGS

Adler, Michael, and Bernard Dumas. "International Portfolio Choice and Corporation Finance: A Synthesis". *Journal of Finance* 38 (1983), pp. 925-84.

Apte, G Prakash, "International Financial Management" Tata McGraw Hill Publishing Company Ltd,. New Delhi, 1995.

Bodie, Zvi, Alex Kane, and Alan J. Marcus, *Investments*, 4th ed. New York, NY: Irwin/McGraw-Hill, 1999.

Bordo, Michael, D., "The Gold Standard, Bretton Woods and Other Monetary Regimes: A Historical Appraisal", *Review*, Federal Reserve Bank of St. Louis, March/April 1993, pp. 123-199.

Eun, Cheol, and Bruce Resnick. “Exchange Rate Uncertainty, Forward Contracts and International Portfolio Selection” *Journal of Finance* 43 (1988), pp. 197-215.

Eun, Cheol, and Bruce Resnick. “International Diversification of Investment Portfolios: U.S. and Japanese Perspectives.” *Management Science* 40 (1994, pp. 140-61.

Fama, Eugene, and W.G. Schwert. “Asset Returns and Inflation”. *Journal of Financial Economics* 5 (1975), pp. 115-46.

Lessard, D. “World, Country and Industry Relationship in Equity Returns: Implications for Risk Reduction through International Diversification”. *Financial Analyst Journal* 32 (1976), pp. 22-28.

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POLITICAL AND COUNTRY RISK MANAGEMENT

STRUCTURE

6.0 OBJECTIVES

After reading this lesson, you should be able to-

- Understand and measure political risk and country risk involved in investment decisions at multinational levels;
- Know various factors having bearing on political/country risk; and
- Explain various approaches to political risk management.

6.1 INTRODUCTION

International financial management is influenced by the political systems existing in different countries. Since multinational activities are operated in different parts of the globe, the impact of political, economic, social and cultural systems can not be denied. The investment decisions are affected by the political set up of a particular country causing political and country specific risk. Regulatory, taxation, economic and financial environments are the outcome of political behaviour of any country. Trade policies, exchange rate policies, monetary policies, fiscal policies of a particular country have a bearing on investment, capital budgeting, working capital decisions of a foreign firm operating as an MNC. It would be beneficial to understand the risk arising out of political and country specific conditions.

6.2 MEANING AND TYPES OF COUNTRY RISK

Country risk is a broader concept than *political risk* or *sovereign risk. Country risk* involves the possibility of losses due to country specific economic, political or social events or because of company specific characteristics, therefore all political risks are country risk but all country risks are not political risks. *Sovereign risks* involve the possibility of losses on private claims as well as on direct investment. *Sovereign risk* is important to banks where as country risk important to MNCs. Sovereign risk is a subcomponent of country risk. Country Risk includes a variety of factors ranging from government's confiscation of a firm's assets to government's encouragement of a negative attitude towards foreign business. In other words, *political risk* can be defined as the possibility of unwanted consequences of political activity.

This risk refers to the uncertainty associated with political activities and events. The major country risks are of two types: (a) macro risks, and (b) micro risks:

6.2.1 Macro Risks

By macro risk we mean, risks affecting all the multinational firms alike. The major macro risks are:

(a) Forced Disinvestment

(b) Unwelcomed Regulations

(c) Interface with Operations, and

(d) Social Strife

(a) Forced Disinvestment: Governments may, as a matter of political philosophy, force firms to disinvest. Forced disinvestment may take place for variety of reasons such as: (a) that the government believes that it may make better utilization resources, (b) it feels that such a take over may improve the image of the government, (c) government wants to control these resources for strategic or developmental reasons. The best example of forced disinvestment is the takeover of oil exploration and oil producing industry. In most of the countries, this industry was started by private entrepreneurs which later on was nationalised.

The forced disinvestments are legal under international law as long as it is accompanied by adequate compensations. Such a takeover does not involve the risk of total loss of assets, however, some times the compensation provided by the government may not match the expectations of company taken over by the governments. Forced disinvestments are practiced in following two forms:

Takeovers/Nationalisation: Usually takeovers and nationalisation are done as a matter of political philosophy. While doing so, a general policy of takeover or nationalisation is announced with a package of compensation. The company owners are asked to withdraw from the management for announced compensation which usually does not match with the expectation of the owners of company. Takeovers and nationalisations are usually done when the ideological base of the

government changes from right or centrist to socialist or to communist ideology.

Confiscation/Expropriation with or without Compensation: This is another form of forced disinvestment. In this the government expropriates legal title to property or the stream of income the company generates. Governments may also constrain the property owners in the way they use their property. Confiscation may be with a minimal compensation or even without compensation. This step may be taken by governments because of political rivalry among nations or because of idealistic shift in government's political philosophy.

(b) Unwelcomed Regulation: The purpose of these regulations is to reduce profitability of MNC's. These regulations may relate to the tax laws, ownership, management, repatriation "of profits, re-investment, limitations on employment and location.

Generally government regulates MNC's activities to increase revenue and to encourage a particular aspect of development. In doing so, the government may become liberal towards MNCs for some investments for some time and as soon as the objective is served, the returns from the project may drop due to unwe1comed regulations.

(c) Interface with Operations: Interface with operations refer to any government activity that makes it difficult for business to operate effectively. This risk includes such things as government's encouragement of unionisation, government's expression of negative comments -about foreigners and discriminatory government support to locally owned and operated business. The governments generally engage in these kinds of activities when they believe that a foreign company's operation could be detrimental to local development or would harm the political interest of the government.

The political risk due to government interface with the business is difficult to assess and manage because the actions are usually done in a subtle way. In contrast, forced disinvestment and unwe1comed regulations have identifiable and immediate impact on foreign business but the interface with the operations may be less obvious and the effects are unclear. One important thing to note is that interference of the governments in operation of the business is an important political risk and should not be ignored. Some times its ignorance may lead to huge losses even if the feasibility studies reflect profits from the operations.

(d) Social Strife: In any country there may be social strife arising due to ethnic, racial, religious, tribal or civil tensions or natural calamities such as drought, etc. may cause economic dislocation. Social strife means general breakdown of government machinery leading to economic disturbances giving rise to political risk.

6.2.2 Micro Risks

Micro risks are firm specific and affect every firm differently. The micro risks are:

1. Goal conflicts with economic policies, and
2. Corruption and bureaucratic delays

1. Goal Conflicts with Economic Policy

Conflicts between objectives of multinational firms and host governments have risen over such issues as the firm's impact on economic development, perceived infringement on national sovereignty, foreign control of key industries, sharing of ownership and control with local interests, impact on host country's balance of payment, influence on the exchange rate and control over export market, and of domestic versus foreign executives.

The economic policies of the government are geared to achieve sustainable rate of growth in per capita, gross national product, full employment, price stability external balance and fair distribution of income. The policies through which these objectives are to be achieved are as follows:

- Monetary Policies
- Fiscal Policies
- Trade Policies and Economic controls
- Balance of Payment and Exchange Rate Policy
- Economic Development Policies

Each of these policies may conflict with the goals of MNCs. These conflicts are discussed below.

Monetary policies and goal conflicts: Through monetary policy, government wants to control the cost and availability of domestic credit and long term capital as a means of achieving the national economic priorities. The multinational corporation can circumvent the policy by turning to the parent. If credit flow is restricted and it has become costlier, the MNC can implement its spending plans with the help of parent but local competitors face the crunch thus changing the competitive position of the domestic companies. National policy is thus frustrated when large amounts of foreign currency is changed into domestic currency for buy-outs or for speculative purposes.

Fiscal policies and the goal conflicts: To attract FDI the government commits tax concession and some times even provide subsidies. After some time when the government wants to achieve revenue targets, because of the commitments the MNCs are insulated, therefore the achievement falls short of targets.

Trade policies and economic protectionism: Nationalistic economic policies are often made to protect domestic industry. To protect domestic industry

from competition tariff and non-tariff barriers are used. Although, negotiations under GATT have reduced level of tariff barriers, but non-tariff barriers remain. Non-tariff barriers restrict imports by some procedure other than direct financial costs. These barriers are difficult to identify because these barriers may be in the name of ecological balance, health, safety, quality and other social clauses and security. In Uruguay Round, the removal of non-tariff barriers was the main issue.

Balance of payment problems: Repatriation by MNCs put pressure on the much needed foreign exchange resources. The outflow is in the form of dividend, management fees, royalty, etc. which puts pressure on balance of payment. This makes the balance of payment situation more bad, therefore the governments are forced to regulate the activities of MNC.

Economic policies and goal conflicts: Infant industry argument or old industry arguments are some times advanced as valid arguments for protective tariffs or restrictions on foreign investments, even though many industries are protected long after they have matured. India, Mexico, Brazil and Argentina induct indiginisation clauses in the agreements with MNCs. Other clauses, such as, ownership component or a clause asking a minimum percentage of local manufacture, are also inducted in agreements.

2. Corruption and Bureaucratic Delays

Political corruption and blackmail contribute to the risk. Corruption is endemic to developing countries. If these bribes are not paid, either the projects are not cleared or delayed through bureaucratic system to make the project infructuous. Delay in clearing the project costs the company and the nation alike.

6.3 POLITICAL RISK AND ITS MEASUREMENT

6.3.1 Existence of Political Risk

Political scientists, economists and entrepreneurs have a definite opinion about the existence of political risk. But none is sure what constitutes it and how to measure it? Since firm is going to invest in a foreign country, therefore, firm perceives opportunity with a perspective of political risk in its own way. Finance consultants and analysts analyse the country risk from country's perspective which is specific to a country. Thus political risk perception from the firm's perspective is likely to differ from the country's point of view.

There are rating agencies such as Moody and other agencies in U.S. and other countries *which* prepare country risk *indices* that attempt to quantify the level of political risk in each country. These indices are based on political stability and policies of the government towards foreign investment. The measurement of these two aspects of the government is subjective.

Political stability means frequency of changes in government, the level of violence in the country, number of armed insurgencies, wars, etc. The basic purpose of political stability indicator is to determine how long this government will survive and whether the government is capable to enforce its foreign investment guarantees. It is usually implied that greater the political stability, the safer is the country for investment.

In some countries, *the government can expropriate either legal tittle to property or the stream of income* it *generates then the political risk* is *said to exist. Political risk also exists if property owners may be constrained in the way they use their property.* If the private companies are constrained to compete with the state owned companies, again the political risk

exists. Political risk also exists if the state itself requires particular percentage of equity participation in the corporation being started.

There are risk assessment agencies which provide political risk indices (rating) in respect of a country for the investment purpose. These political risk indices try to assess the political stability of the country In making these indices, those factors are analysed from *which the* threat to the nation state emerges.

6.3.2 Measurement of Political Risk

The political risk index tries to incorporate all these economic, geographical and social aspects, so that political risk may be indicated in a concise manner. These indices measure over all business climate of a country.

On the basis of the above type of analysis, BERI (Business Environment Risk Information) categorises nations in four categories as per four level, of risk perceptions: (i) low risk countries, (ii) medium risk countries, (iii) high risk countries, and (iv) prohibitive risk countries.

Capital Flight and Political Risk: Some of the finance consultants believe that *Capital flight* is one good indicator of the degree of political risk. By capital flight we mean the export of savings by a nation's citizens because of the fears about the safety of their capital. It is very difficult to measure capital flight accurately because it is not completely observable. Apparently one can use the item errors and omissions on the balance of payment to assess the extent of capital flight. Capital flight occur for several reasons. These reasons are:

Government Regulations and Controls: Some times governments try to control and regulate the use of savings to channelise the resources to a particular sector. In this case, government enacts the rules for using capital. The return on investment is fixed by the government.

Taxes: If the government imposes heavy taxes on returns from investment the net return, becomes low. The capital flight occur in search of better returns.

Low Returns: If the economy itself is providing low returns, the capital flight would occur.

High Inflation: The countries having high inflation also face capital flight, because domestic hedging against inflation becomes difficult therefore the citizens try to hedge through a foreign currency which is less likely to depreciate.

Political Instability: Perhaps the most powerful motivation to capital flight comes from political instability because no one is sure about the return on investment.

Econometric Modeling: Econometric modeling can also be used to assess the- sovereign [political) risk. This type of risk is being assessed by banks to assess the capacity of the Government to repay the loans without default. Basically econometric modeling requires quantification of the variables discussed above. If the subjective variables are quantified on different scales, then econometric modeling is done as follows:

Suppose y_t refers to a particular level of risk measured as an index given economic, geographical and social variables then we can write:

$$y_t = a + bX_1 + cX_2 + dX_3 + e_t$$

Where X_1 is the variable capturing economic factors, X_2 is a variable capturing geographical factors and X_3 is the variable that captures sociological factors. In this equation, *'e'* is error term following normal distribution with zero mean and constant variance, *'a'* is the intercept of the regression line indicating the minimum level of political risk that will exist in the absence to other factors, and *'b', 'c'* and *'d'* are slope

parameters which provide the sensitivity of political risk index to the economic, geographical and sociological factors.' With the help of above equation we can identify a critical level above which if the index climbs, the country may be referred as having political risk.

Delphi Method: The Delphi Method involves the collection of independent opinions on country risk from various experts without group discussion. The MNC can average these country risk scores and assess the degree of disagreement by measuring dispersion of opinions.

Risk Rating Matrix: An MNC may evaluate country risk for several countries to determine location of investment. One approach to compare political and financial ratings among countries, advocated by some foreign risk managers is called foreign investment risk matrix, which shows the financial risk intervals ranging across the matrix from acceptable to unacceptable. It also shows political risk by interval ranging from stable to unstable. The matrix is based on ratings provided by rating agencies.

6.4 FACTORS AFFECTING POLITICAL RISK

To analyse the extent of political risk, the factors that contribute to the general level of risk can be classified in to two categories: (A) Country Related Factors, and (B) Company Related Factors. The factors in these categories have been explained below:

6.4.1 Country Related Factors

1. Economic Factors

(a) *Fiscal Discipline:* One of the important indicators of fiscal discipline is the fiscal deficit as a percentage of gross national product. The higher is this ratio, the more the government is promising to its population relative to the resources it is obtaining from them. The

fiscal gap can force governments to resort to the expropriation or create a politically risky situation.

(b) *Controlled Exchange Rote System:* The controlled exchange rate system compounds the balance of payment problem and thereby makes fiscal discipline difficult. The' control' should not be confused with 'regulations'. By controlled system we mean the government using currency controls to fix exchange rate, i.e. the pegging of the currency. In controlled exchange rate systems, usually the domestic currency is overvalued, which implied subsidising the imports. The risk of tighter exchange control leads to capital flight because there is a greater risk of devaluation. The controlled exchange rate system provides the economy little flexibility to respond to the changing relative prices.

(c) *Wasteful Government Expenditure:* Wasteful public spending is potential indicator of financial problems. This spending refers to the unproductive spending in the economy. In this case, even the borrowings from abroad are used to subsidise consumption in the economy. In this case, the government has less savings to draw on to pay foreign debt and therefore resorts to exchange controls and higher taxes. This would inject inflation and capital flight into the economy.

(d) *Resource Base:* Countries rich in natural resources have less economic instability. The nations are different in their natural, technological and financial resources, therefore, political risk assessment also requires analysis of the resource base. This is because shortage or abundance of resources can cause economic, political or social instability. For example, excess of population relative to other resources would cause unemployment leading to social and political tensions.

(e) *Country's Capacity to Adjust to External Shocks:* If a country has vast resource base, the country will process greater capacity to respond to external shocks. The national spirit of population is also important factor to adjust to external shocks. Cuba and Iraq are two countries where the national identity was responsible for bearing external shocks.

Another important characteristic of a nation that makes it resilient against external shocks, is the sustained growth model being adopted for growth in the economy. If the development is internalised, i.e. it does not depend on foreign aid or foreign flow of funds, then the economy becomes insulated to external shocks.

2. Geographical Factors

As we have already discussed that-the nations are living in a particular geographical configuration and that if the environment around the nation is hostile, greater level of political risk exists. More number of border disputes imply greater degree of political risk. Similarly, if a nation is more prone to calamities, (historical data), greater is the political risk.

3. Sociological Factors

Sociological factors are related to religious diversity, lingual diversity, ethnic diversity and political dogmatism. Greater is religious diversity, the greater will be chances of social discontent because every religious group tries to assert its supremacy over others. Similarly the diversity in language and ethnic groups create social tensions. India is an example of religious, language and ethnic diversity. Most of the social tensions in the country are due to these diversities. Afghan problem is also due to ethnic and tribal diversity.

Political dogmatism among various political groups also create political instability in the country resulting in higher political risk.

6.4.2 Company Related Factors

(a) *Nature of Industry:* The nature of the industry also determine the political risk. We observe in the world that some industries are subject to more government regulations as compared to others. This is because these industries are seen as being important to development and therefore the government wishes to control it. The pricing of the product of these industries affect population in general, therefore it is necessary to control these for political hold on population. Some industries are crucial and strategic to some countries, therefore these industries attract more regulation.

(b) *Level of Operation:* The companies with complex, globally integrated operations appear to be relatively safe from government intervention. These operations are difficult to take over and regulate. Suppose the parent company control the source of supply of a technology or raw material. It is not possible for the government to regulate this operation.

(c) *Level of Technology and Research and Development:* High and sophisticated technology companies and those companies having high degree of research and development content *International Financial Management* are difficult to be regulated. This is because these qualities are quite individual and have been developed over a long period of time after substand efforts.

(d) *Level of Competition:* The companies having little competition are also not regulated because the host government is unable to replace them.

(e) *Form of Ownership:* The company's ownership is also an important component of its vulnerability to risk. Local ownership is usually viewed favourably by governments, thus wholly owned subsidiaries

are at greater risk while joint ventures with the locals are less risky.

(f) *Nationality of Management:* If the management is entirely foreign, the company is more vulnerable to political risk than a company having mixed nationals in the management or locals in the management.

The fact that the degree of risk in any situation is a function of both the country and company specific risks, the company while assessing the risk needs to take into account both types of risks.

6.5 POLITICAL RISK MANAGEMENT

Political risk process can be thought of as comprising both assessment and management of risk. The process evaluates a company to estimate the degree of risk that exists in any situation and then decide how to deal with the risk. If the risk element is high at a particular location, then a commensurate return (risk adjusted) is expected. If higher returns are not available to offset high risks, the company is likely to forego the opportunity of investment. Only in the situation when risk is compensated with commensurate return, the project is undertaken.

Process of management of political risk can be thought of consisting of following six steps:

Step 1. *Identify the risk:* The purpose of identifying the risk is to identify the policies and activities of the government which are most likely to affect company's operations.

Step 2. *Evaluate risk:* This step evaluates the likelihood of government policies and activities and the extent to which these are going to affect the company's operations. There are consultants and political risk

assessment services which provide information on different countries the estimates of political risk.

Step 3. *Select Management Techniques:* Management techniques are to be selected to counter the effect of government's policies and activities. In this step, the decision is made on as to how to deal with the risk that have been identified. The selection of the technique requires a complete understanding of functional area of management. One should bear in mind that if the selection is not proper it is usually non-reversible after implementation. There are different approaches to meet the challenge. The company should choose that approach which seeks to protect the best interest of the company.

There are many countries which provide insurance against political risk to their own companies. Overseas Private Insurance Corporation (OPIC) is a US government agency which provides insurance against expropriation, war or currency's non-convertibility.

Step 4. *Implement decided technique:* The purpose of this step is to start encountering the political risk through management policies so that damage is limited.

Step 5. *Evaluation of the degree of success:* The purpose of this step is to evaluate the effectiveness of company's political risk management. This step provides opportunity to reassess the likelihood of various kinds of risk and appraise the effectiveness of the risk management technique. Political risk management should be an ongoing process because political situation embodies change and therefore the companies have to be vigilant against the political changes that affect operations of the companies.

Step 6. Re-evaluation and correction after evaluation of the degree of success, corrective measures are to be thought and implemented. Again

the risk assessment is required to be done. The process of protecting against political risk is a continuous (Figure 6.1).

The figure shows the six steps to manage and evaluate and re-adjustment of policies to meet the challenge of political risk:

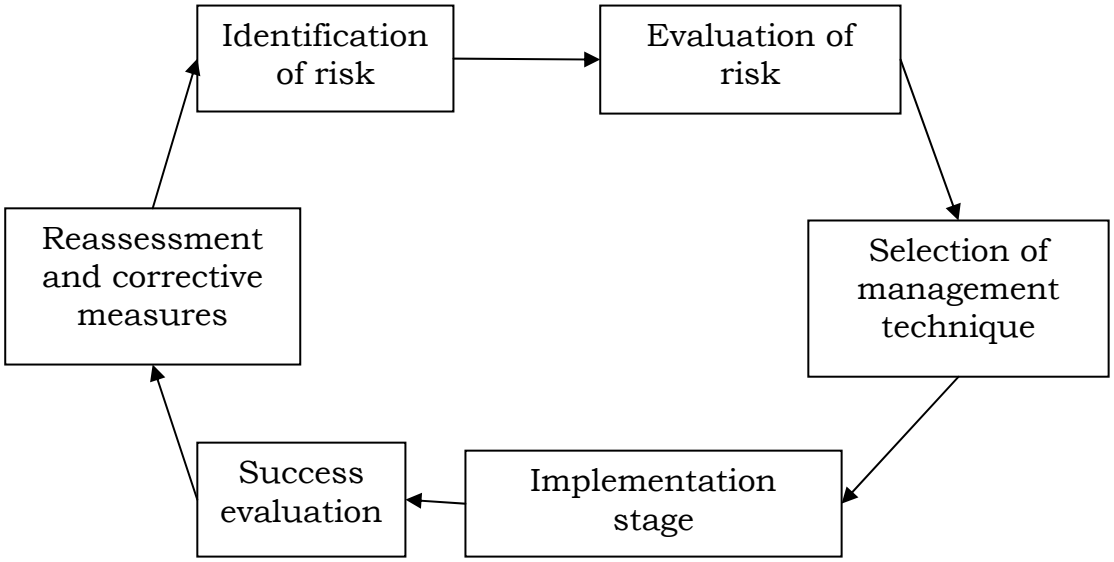

Figure 6.1: Six steps to political risk management

6.6 APPROACHES TO POLITICAL RISK MANAGEMENT

There are two approaches to political risk management: (1) defensive approach, and (2) integrative approach.

6.6.1 Defensive Approach

In this approach, the company tries to protect its interests by locating crucial aspects of the company beyond the reach of the host governments. This is intended to minimise the firm's dependence on host or make the host government's intervention costlier. The protection is also embedded in policies of all functional areas of management. Some important strategies in these functional areas are discussed below:

Financial Strategies: To protect against the hostility of the host government following steps should be taken:

- Maximise debt investments
- Raise capital from variety of sources including host government, local banks and third parties
- Enter into joint venture with host government or with the local third party
- Obtain host country's guarantees for investment
- Minimise local retained earnings
- If possible transfer pricing should be resorted

Management Policies: To insulate the information about the company functioning following steps should be considered:

- Minimise the role of host nationals at strategic points and limit locals to low and junior levels
- Train and educate the host country nationals at the head quarter to inculcate loyalty
- If host country's nationals are at key positions, try to replace them with third country nationals first so that the hostility of the company is not evidenced

Logistics: If the political risk is assessed, then

- Locate the crucial segment of the company's process outside the country but near the country
- Concentrate on research and development in the home country making the subsidiary dependent on the parent
- Balance the production of goods among several locations, thus reducing dependence on single location

Marketing Management: In the case of marketing policies following steps are suggested:

- Control markets where ever and when ever possible

- Maintain control over distribution network including transportation of goods
- Maintain a strong single global trade mark

Government Relations: In this approach the company must know its own strengths and weaknesses and try to negotiate with the government to defend its interests. The competitive strength of the company should not be compromised.

6.6.2 Integrative Approach

This approach aims at integrating the company with host economy to make it appear local. In this background the strategies in the functional areas of management would aim at integrating the Company with the host economy. The important strategies to be adopted are:

Financial Strategies: Following strategies are required to be adopted for financing the projects in the host country:

- Raise equity from the host country and involve local creditors
- Establish joint ventures with locals and government
- Ensure that internal pricing among subsidiaries and between headquarters and subsidiaries is fair.

Management: Following strategy may be adopted for integrating the company with the host country:

- Employ high percentage of locals in the organisation
- Ensure that the expatriate understood the host environment
- Establish commitment among local employees

Operations Management In operations management, following steps are required to betaken:

- Maximise localisation in terms of sourcing, employment and research and development

- Use local sub-contractors, distributors, professionals and transport system

Marketing Management: In the case of marketing policies following steps are suggested:

- Share markets with domestic players as collaborators or market products through local marketing companies
- Appoint local distributors and use local network including transportation of goods
- Maintain a strong single global trade mark

Government Relations: The company, for developing good and cordial relationship may adopt following strategy:

- Deve1op and maintain channels of communication with member of political elite
- Be willing to negotiate agreements that seem fair to host governments keeping in view the company's interest
- Provide expert opinion when ever asked for
- Provide public services

6.7 COUNTRY RISK ANALYSIS

Since negotiation with the host government is a part of the risk management policy, therefore these should be done carefully remembering that these can be time consuming and frustrating because the two sides often see the same situation very differently. In this section, some of the view points are discussed for improving the negotiation process.

In all the economies, FDI is an important component of economic development process and in particular for LDCs. But in all the economies the presence of foreign subsidiaries is looked as foreign presence and

foreign influence. Therefore, a serious concern of the governments is to regulate the activities of foreign subsidiaries if not fully at least partially.

In general, the MNC's objective of FDI is to establish operations that fit its overall strategy and provide a reasonable return in a relatively risk free environment. The host government's objective is a positive contribution to its development objective. The objectives of the firm and the host country may not be in conflict, the aim of the negotiation should be to establish the means by which each party can accomplish its objectives and find ways in which operations can be mutually beneficial.

Although, it is true that the MNC's objectives need not be in conflict with those of the host, the different views of the same situation by the host and the MNC often make it seem that their objectives are in conflict. To reach an agreement with the host and to achieve its own objectives, the MNC needs to understand how the host views a particular situation. In any negotiation, MNC must know its strengths and the view of the host government so that the best possible agreement could be reached.

6.7.1 MNC's Views and its Strength for Negotiation

FDI is always looked as positively adding to the development efforts. MNCs help nations in the following manner:

FDI Provide Capital for Development: MNCs add capital to the over all capital mobilising effort of the host government for growth and development. This capital is attracted from abroad. Sometimes large concessions and subsidies are announced by governments to attract this capital.

MNCs Introduce Modern Technology: In developing countries. Often the technology adopted by MNC is not available locally, therefore the MNCs enrich the countries with new technology.

MNCs Provide Business Skill to Industry: In most of developing countries, business know-how is not available, and the MNCs introduce this know-how through their entry in the economy.

MNCs Provide Access *to foreign Markets:* MNCs exert influence and control over many markets, therefore it is possible for them to export from production location in a developing country to the markets that these MNCs control.

MNCs make Positive Contribution to Balance of Trade: The products and services of many MNCs are import substitutes, therefore, the pressure on imports are reduced resulting in the improvement in balance of trade.

MNCs add to the Efforts of Employment: MNCs local operations provide employment for the host country nationals thus adding to the government's effort for increasing employment.

MNCs Provide much Needed Foreign Exchange: Many developing countries have limited amounts of foreign currency which they need to pay for imports. Through exports and investments the MNCs provide foreign exchange to the economy.

MNCs add to the Tax Revenue Collection: MNCs are subject to local corporate tax law and tariffs, and their employees, both local and foreign-pay income taxes. These payment contribute to government revenue.

Development of Entrepreneurs: Developing countries in general lack in sufficiently skilled local entrepreneurs. MNCs believe that they provide an example as well as a starting place for host country nationals who are potential entrepreneurs.

These are the strong arguments in favour of foreign direct investment which can be placed while negotiating and these prove that the MNC's investment is extremely positive. But the host have a different view of the

investment. Host's view point and its negotiating strength is being discussed below.

6.7.2 Host Country's View

Host governments also see point in the above arguments, but they also see negative side of the investment. The negative aspects of the investment are being explained below:

Increased Dependence on Foreign Sources: Although the provision of needed resources such as capital, technology, and expertise appears positive but may be seen as increasing local dependence on the outside world. In addition to this, MNCs are seen aligned with the elite group of the country and thus these tend to strengthen the status quo of the social structure rather than work for a social change.

Decreased Sovereignty: The supply of the needed resources makes the host country dependent on MNCs and consequently results into the loss of control by the host government. Particularly for smaller countries, the possible harmful impact can be on economic, social and political system, e.g. the MNCs encourage west values, consumerism or may support a particular party. Due to increased consumerism, the savings in the economy is decreased.

Exploitation of the Host Country: MNCs are often found using non-renewable resources, repatriating valuable foreign exchange to its parent and generally profiting at the expense of local community.

Obsolete Technology: It is believed that the technology provided by MNCs is either outdated or too advanced. Sometimes it is felt that the MNC is getting rid of its old technology by instituting a subsidiary in a developing country.

Inappropriate Technology: All local technologies embed local factor endowments therefore the technology is most suited to that nation only where it has been invented. Now if this technology is exported to another nation, the technology will be inappropriate. For example, the American technology will be a labour saving because labour is difficult to be found where as the technology which employs more labour will be more appropriate for India.

Displacement of Local Firms: The MNCs enter markets after evaluating their competitive advantages against domestic firms and therefore the local firms feel uncomfortable. These firms can not compete with the MNC therefore forego investments or search new markets for investments. There is flight of capital from domestic economy to foreign economies.

Outflow of Foreign Exchange: The apparent foreign exchange benefits from investment and exports can be more than offset over time, because once the investment is done, thereafter the repatriation starts and the much needed foreign exchange starts flowing towards the parent thus putting pressure on foreign reserves.

Since the perceptions of the government is different from that of the MNCs, therefore MNC, must understand the concerns of the government and negotiate in the light of above perceptions without compromising the competitive position of company.

The host government wants the potential contribution of FDI to improve economic conditions, trade balance, increased employment, increased power but fears the potential negative consequences such as loss of sovereignty, technological dependence and control of key economic sectors. This can lead to conflicting emotions, *therefore the relationship is that of love and hate.* The host government's policies are so designed, that

on one side the government tries to attract foreign investment and on the other it tries to regulate the activities of the MNCs.

The outcome of a negotiating process is partial and the outcome favouring a particular party depends on how much each party needs the other and how much control each side can exert on the other. If the government has many options of getting foreign investment, then government is strong on its wicket, but if the company can provide a particular service or product and there are no offering with the government then the company has a favourable climate for negotiation. The bargaining position a particular company or country should adopt, depends on the structure of incentives and restrictions enumerated below:

Government incentives and restrictions

Incentives	**Rescrictions**
Tax holidays	Local ownership
Exemption from duties	Local content
Tax incentives	Local personnel
Monopoly rights	Local training
Provision of building	Location
Low interest loans	Profit repatriation
Foreign exchange use	

The bargaining posture which an MNC or government can take, depends on how one side needs the other. The different postures can be:

1. When both sides are weak, the negotiation would be quite, mutually adjusting and little room for taking a stand.
2. When one side is relatively strong, the party will be assertive, competitive and aims at dominating.
3. When one side is relatively weak, it will adopt cooperative and accommodative posture and aims at satisfying the other party.

4. When the relative strengths of the two parties are unclear, the parties would adopt compromising, bargaining posture and aims at trade offs.
5. When both the sides are strong, the parties would adopt collaborative, informative posture, which aims for integration of concerns.

Another important factor that affects the process and outcome of negotiations is the relationship between the home government and the host government. A positive relationship between the two governments is likely to make negotiations smoother. Interest of the home government coincide with that of the MNC, therefore in the event of unwanted political activities by the host government, the home government will support the MNC and would try to influence the host in respect of the unwanted activities.

Although the interest of the MNC and home country coincide but here also there is a conflict. Investing abroad does not mean investing at home, therefore some groups would be adversely affected at home. For example, had the investment been done at home, more jobs would have been created. The government and people of the home country also often expect the firm to act in the best interest of the home nation rather than in the best interest of the firm.

6.8 COUNTRY RISK: A CASE OF INDIA

Over the year, the government has accorded various benefits to the Indian IT service industry. Key among these is the 10-year income tax holiday granted to software and IT-enabled services (ITeS) exporters registered under specified schemes. But if the law's complexities and recent actions by the revenue authorities are any indication, the income tax holiday has proved to be a problem for several players.

Complex laws are an anathema to the taxpayer and, as the following illustrations reveal, the provisions which seek to grant a tax holiday do not fully or clearly answer questions fundamental to their enjoyment.

While the government has notified 15 IT-enabled services as eligible for tax holiday, the specific nature of activities to be covered under each headis not clearly explained. As a result, revenue authorities have, in several cases, denied the income tax benefits, citing ineligibility.

The tax benefit is available with respect to 'profits of the business', in the proportion that the 'export turnover' from eligible activities bears to the 'total turnover'. However, the terms 'profits of the business' and 'total turnover' have not been defined. This has triggered a spate of litigation. For example, the revenue department has, in several cases, been treating credits such as foreign exchange gains, bad debt recoveries, reversal of excess prior year deductible provisions etc, as profits ineligible for a tax holiday and subjected the same to taxes. Besides, the department has been excluding items from computation of 'export turnover' without effecting corresponding exclusions in the 'total turnover' (in the process, disregarding judicial precedents which clearly negate such inconsistent adjustments), and thereby reducing the quantum of profits eligible for tax holiday.

Software Technology Park (STP) units are being denied a tax holiday in cases where they have been registered with the STP authorities after commencement of manufacturing, based on the plain text of the provisions, unlike 100 per cent export-oriented units (EOUs), where the holiday has been specifically clarified to be available in similar circumstances. The government would do well to address this inconsistency and amend the law or clarify that the benefit should be available from the date of STP registration for the unexpired period of the

tax holiday (within 10 years from the year of commencement of manufacturing).

Several other ambiguities exist. These relate, among other things, to the stage of claiming tax holiday deduction in computing taxable income, treatment of unabsorbed depreciation from prior years in computing the current year's tax holiday benefit, circumstances and extent to which subcontracting is permitted under alternative business scenarios, availability of the tax holiday to the transfer of company in case of mid-year amalgamations or demergers, and interpretation of the specific anti-abuse provisions in cases involving internal and external business reorganizations.

Simplicity and certainty in tax laws are globally recognized as the best form of tax incentive that any government can offer its taxpayers. In the context of the income tax incentives introduced for the IT industry, for some time now, the gaps between legislative intent, enactment and administration have been fairly apparent, only fuelling further complexity in the Indian tax system.

In this backdrop, a set of clear amendments or comprehensive rules and clarifications explaining the law are needed.

With income tax benefits related to STPs or 100 per cent EOUs currently scheduled to lapse by March 2009, one hopes that contentious issues will be put to rest at the earliest, so that taxpayers are not burdened with the ignominy of protracted litigation after the tax holiday period [Courtsey: Business World, March, 13, 2006].

6.9 COUNTRY RISK IN SLOVENIA: A CASE

Direct investments: Foreign direct investment and the establishment of companies in Slovenia are subject to the Foreign Investment Law. Foreign

investment can be made in currency, tangibles (movable or immovable property) or in rights (like know-how or rights to industrial property).

The Foreign Investment Law provides the following possibilities for foreign investors: contractual joint ventures, equity joint ventures, wholly-owned companies and concessions for the exploitation of renewable or non-renewable natural resources or goods in common use.

Limitation: In principle, foreign individuals and foreign legal persons are allowed to set up companies, although some areas are still restricted. Foreign 100%-owned investments are not allowed in the field of military equipment, insurance, mass media, rail and air transport, communications and telecommunications and publishing. Foreign participation is limited in the following sectors: auditing companies (max. 49%), brokerage houses (max. 24%), investment companies for investment funds (max. 20%), authorised investment companies (max. 10%), media (max. 33%), banks (approval of the Bank of Slovenia for acquisition of qualified share of voting rights), insurance (participation with prior approval only). The foreign acquisition of more than 25% of shares of newly privati sed companies is subject to approval of the Government.

The registration of foreign direct investments or the establishment of wholly or partially foreign-owned companies is subject to the same condition as is that of domestic legal persons. In order to acquire legal status, all kinds of investment establishment of a company, joint venture, (share)acquisition must be registered at the local Court of Justice, which is deemed to have informed the Ministry of Economic Co-operation and Development accordingly. The repatriation of profit is free, provided all tax obligations in Slovenia have been met.

Foreign portfolio investments: On February 4, 1997 the Governing Board of the Bank of Slovenia adopted a Decision obliging non-residents

to establish custody accounts with the authorized domestic banks in order to conduct portfolio investment operations in Slovenia.

Banks are liable to book in such accounts any amounts from abroad, intended for investment in securities, derivatives or any other kind of investment, provided they are licensed to operate such accounts. In the absence of such a license, they are obliged to obtain instructions from foreign principal as to which domestic licensed bank should be credited, unless they are instructed to refund the respective amounts to the foreign principal.

Authorised banks may operate custody accounts for the account of non-residents on the basis of a respective agreement concluded with non-residents. An authorisation for the bank to purchase and sell securities on the domestic securities market in the name and for the account of the non-resident, to conduct any other operations in accordance with the Law on Securities Market (Official Gazette of the Republic of Slovenia, No. 6/94) and in line with the licence, is also an integral part of the agreement.

Under the aforementioned decision, the following investments are not subject to the obligations imposed on foreign portfolio investments:

l. foreign investor's acquisition of more than a 10% share of company's capital or more than 10% of voting rights;
2. a purchase of debt instruments (private issue only) and shares issued by domestic companies on the primary market - the purchase of debt instruments is, however, subject to regulations of the Law on Foreign Credit Transactions (Official Gazette of the Republic of Slovenia, No *1/91-1* and No. 63/95) and registration with the Bank of Slovenia,
3. portfolio investments in shares acquired by non-residents who undertake that in the subsequent 4 (four) years they will not sell,

assign or otherwise dispose of these securities to third parties, except for other non-residents who also undertake the same commitment again for the period of subsequent 4 (four) years. The 7 (seven) years" period, however, further applies to all foreign portfolio investments, settled before January 31, 1999 when the new regulation came into force.

Non-residents introducing debt instruments in the Republic of Slovenia are obliged to obtain prior approval of the Ministry of Finance.

Domestic portfolio investments abroad: Portfolio investments of domestic banks: banks are allowed to purchase securities abroad. A portfolio of first class securities i.e. bonds issued by OECD countries, by first class foreign banks, as well as bonds issued by the Republic of Slovenia abroad, counts as fulfilment of the foreign exchange minimum requirement set by the Bank of Slovenia. Residents introducing shares in the Republic of Slovenia are obliged to obtain prior approval of the Ministry of Finance.

Pursuant to the Constitution of the Republic of Slovenia, foreigners may not purchase land and other real estate with the exceptions stated by the law. Foreign states, however, may acquire the right to own property affixed to land, used them for diplomatic or consular purposes. Furthermore, foreigners may acquire title to land only by inheritance provided that reciprocity of such right of acquisition is recognised. These restrictions, however, do not apply to Slovenian companies with foreign participation.

These companies are legal persons by Slovenian law and have all the ownership rights enjoyed by domestic enterprises. They are allowed to own real estate without any restrictions.

Payments abroad pertaining to the liquidation of foreign direct investment or sale of real estate (including capital gains) are free of any restrictions after all obligations in Slovenia have been met. Transfer of proceeds from the realisation of inheritance is free if reciprocity is guaranteed between Slovenia and the country of the recipient.

Setting up a commercial company: A foreigner may set-up whatever legally recognised form of a company based on the Law on commercial companies, i.e. limited liability company, joint stock company, limited partnership with share capital and partnerships, i.e. general partnership, limited partnership, silent partnership. All companies acquire the character of a legal entity by being entered in the court register. Before the inscription into the court register many formalities have to be completed.

A foreign person may be an exclusive or partial owner with the need to emphasise that the director or the procurator shall be a Slovenian citizen. In the case that the procurator is a foreign person and the board has more members, the majority of them have to be Slovenian citizens.

A company founded in this particular way does have, legally, on the territory of the Republic of Slovenia, the same rights, obligations and responsibilities as the companies with the board office in Slovenia. Status of domestic legal entity is acquired, so a special permit is necessary for capital outflow abroad.

Apart from founding an individual company, foreigners can invest into the existing companies (that means joining the existing company). In companies where equity shares are not securities (partnerships and a limited liability company) investments will be performed in agreement with company's partners and with joining the partnership agreement. Transactions of equity shares are more complicated compared to joint-stock companies because of emphasised personal relations. Take-overs in

joint-stock companies are much more often and far less dependent on individual partners - shareholders, due to equity shares - shares which quote on the Stock Exchange as securities. The take-over of a company is possible either with a merger or acquisition, governed by the Law on commercial companies and is possible to be realised with the approval of company's management.

Branches: Foreign companies may establish branches in Slovenia if they have been registered in their country of origin for at least two years. The branch performs its business activities in the name and on behalf of the parent company. The name and address of the parent company must be used in business transactions. Appointment of a proxy with a permanent residence in Slovenia is compulsory. The parent company is liable for all obligations of the branch.

The branch must be registered with the competent court in Slovenia. An application for court registration must be accompanied by:

- a copy of the registration of the parent company;
- the decision of the managing body on establishing a branch;
- a notarised copy of the shareholders' agreement;
- the name of the person representing the branch and parent company;
- a verified business report of the last business year of the parent company;
- the branch's business activities; and
- the consent of the relevant body of the Republic of Slovenia for establishing the branch and transferring capital, if required by law

After February 1, 1999, branches of European Union member-countries' companies established in Slovenia are granted full national treatment.

Costs of some ingredients in Slovenia:

TABLE 6.1: LABOUR FORCE COSTS

Profession	**Monthly gross salaries in EUR**
Engineer	800 - 1000
Skilled production workers	560- 760
Unskilled production workers	440-540

Source: TIPO, September 1999

TABLE 6.2: REAL ESTATE COSTS

	Leasehold (eur m")		**Freehold (eur m")**	
Area/City	Ljubljana	Maribor	Ljubljana	Maribor
Offices	5-17	3-12	500-1.750	350-1.200
Production facilities	3-7	2-5	250-750	175-520
Warehousing facilities	3-7	2-5	250-600	175-420
Land (serviced areas)	Na	Na	75-150	50-100

Source: TIPO, September 1999

6.10 SUMMARY

The investment decisions of an MNC are influenced by various risks arising due to different politics and country specific factors. Country related risk factors are economic factors like fiscal administration, exchange rate regimes, government expenditure and ability of the country to absorb the shock and geographical factors are related border issues and natural calamities. On the other hand social factors and company related factors are responsible for political risk. The MNCs should identify, assess and try to instigate the impact of risks related to country and political specific conditions.

6.11 KEYWORDS

Balance of Payment Account A statistical record of the flow of payments into and out of a country during an interval of time. Provides a record of the sources of supply of and demand for a country's currency.

Balance of Payment on Capital Account The difference between the value of a country's assets sold to non-residents and the value of asset bought from non-residents during an interval of time.

Balance of Trade A commonly used abbreviation for the balance on trade, and equal to merchandise exports minus merchandise imports.

Dirty Float Occurs when governments attempt to influence exchange rates which otherwise flexible and allowed to float. Also called a managed float.

Political Risk Uncertainty surrounding payment from abroad or assets held abroad because of political events. A special case of country risk, which includes economic and socially based uncertainty as well as political uncertainty.

Portfolio Investment Investment in bonds and in equities where the investor's holding is too small to provide effective control.

6.12 SELF ASSESSMENT QUESTIONS

1. Discuss various factors which determine the extent of political risk?
2. Explain different methods of measuring country risk.
3. Explain the case of Indian scenario in terms of political and country risk with suitable illustrations?
4. What is the process of political risk management and how do you assess the economic health of a nation.

5. How economic policies of a nation are affected by political risk?

6.12 REFERENCES/SUGGESTED READINGS

Adler, Michael, and Bernard Dumas. "International Portfolio Choice and Corporation Finance: A Synthesis". *Journal of Finance* 38 (1983), pp. 925-84.

Apte, G Prakash, "International Financial Management" Tata McGraw Hill Publishing Company Ltd,. New Delhi, 1995.

Bodie, Zvi, Alex Kane, and Alan J. Marcus, *Investments*, 4th ed. New York, NY: Irwin/McGraw-Hill, 1999.

Bordo, Michael, D., "The Gold Standard, Bretton Woods and Other Monetary Regimes: A Historical Appraisal", *Review*, Federal Reserve Bank of St. Louis, March/April 1993, pp. 123-199.

Eun, Cheol, and Bruce Resnick. "Exchange Rate Uncertainty, Forward Contracts and International Portfolio Selection" *Journal of Finance* 43 (1988), pp. 197-215.

Eun, Cheol, and Bruce Resnick. "International Diversification of Investment Portfolios: U.S. and Japanese Perspectives." *Management Science* 40 (1994, pp. 140-61.

Fama, Eugene, and W.G. Schwert. "Asset Returns and Inflation". *Journal of Financial Economics* 5 (1975), pp. 115-46.

Lessard, D. "World, Country and Industry Relationship in Equity Returns: Implications for Risk Reduction through International Diversification". *Financial Analyst Journal* 32 (1976), pp. 22-28.

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Lesson: **7**	

COST OF CAPITAL OF MULTINATIONAL FIRM

STRUCTURE

COST OF CAPITAL OF MULTINATIONAL FIRM

7.0 OBJECTIVES

After studying this lesson, you should be able to-

- Understand the conceptual framework needed to compute the cost of capital of multinational firms;
- Know how to determine discount rates for foreign investment projects; and
- Judge various issues in estimating foreign projects beta.

7.1 INTRODUCTION

A central question for multinational corporations is whether the required rate of return on foreign projects should be higher, lower, or the same as that for domestic projects. To answer this question, we must examine the issue of cost of capital for multinational firms, one of the most complex issues in international financial management. Yet it is an issue that must be addressed, because the foreign investment decision cannot be made properly without knowledge of the appropriate cost of capital.

The *cost of capital* for a given investment is the minimum risk-adjusted return required by shareholders of the firm for undertaking that investment. As such, it is the basic measure of financial performance. Unless the investment generates sufficient funds to repay suppliers of capital, the firm's value will suffer. This return requirement is met only if the net present value of future project cash flows, using the project's cost of capital as the discount rate, is positive.

Because cost-of-capital measures for multinational firms are to be used as discount rates to aid in the global resource-allocation process, the rates must reflect the value to firms of engaging in specific activities. Thus, the emphasis here is on the cost of capital or required rate of return for a specific foreign project rather than for the firm as a whole. Unless the financial structures and commercial risks are similar for a11 projects engaged in, the use of a single overall cost of capital for project evaluation is incorrect. Different discount rates should be used to value projects that are expected to change the risk complexion of the firm.

7.2 COST OF CAPITAL AND INTERNATIONAL FINANCIAL ENVIRONMENT

A multinational corporation operates in multieconomic environment comprising of international, host country, and domestic financial

environment. Therefore, the cost of capital for a multinational firm can be affected by any of the factors present in these environments. In general, following factors affect the cost of capital:

1. *The availability of capital:* In multinational environment, the firm has access to domestic and international financial markets, thereby its access to liquidity increases and firm can choose capital with lower cost of capital.

2. *Segmented markets:* Segmented national capital markets can distort the cost of capital for the firms domiciled in these markets. The segmentation of markets is created by the barriers to free flow of capital. In developing countries capital account out flows are restricted therefore inflows also get restricted and the cost of capital rises.

3. *Political risk adjustment:* Cost of capital of every foreign project is to be adjusted for political risk. This risk is additional to other project specific risks. This makes the asking rate of return to rise.

4. *Taxation policies:* Taxation policies of both the home and host government affect the cost of capital. The firm has to consider how should a firm include tax considerations when sourcing funds and making financial structure decisions.

5. *Financial disclosures and cost of capital:* The firms financial disclosures for obtaining funds from international market affect the cost of capital. Various capital markets have different disclosure norms. The market where disclosure norms are well defined and are strictly implemented, the asking rate or return falls because of less degree of risk therefore in these markets the cost of capital declines. American disclosure norms are stringent consequently

most of Indian companies follow GDR route to obtain capital from American capital market.

6. *Optimal financial structure:* Multinational operations may change a firm's optimal financial structure. The added international availability of capital and ability to diversify cash flows internationally affects the firms optimal debt ratio.

7. *International and host country lending norms:* The financial structure of affiliates have to take into account the lending norms of international agencies or host country and a compromise has to be reached to reflect affiliate's need of liquidity, minimization of foreign exchange and political risk, fulfilling of legal requirements and the tax minimization. All these necessities increase the cost of capital.

7.3 MARKET SEGMENTATION AND COST OF CAPITAL

A national market is segmented if the required rate of return on securities in that market differs from the required rate of return on securities of comparable expected return and risk that are traded on other national securities markets. If the markets are integrated, the securities of comparable expected return and risk should have the same required rate of return in each national market after adjusting for foreign exchange risk and political risk. The main causes of market segmentation are:

1. *Information barriers:* The important information barriers are- language, accounting principles, and quality of disclosures. If language of the prospectus can not be understood by investors, or international accounting standards are not adhered to or expected disclosures are not made, the required rate of return by the investors increases.

2. *Regulatory barriers:* Taxation of capital gains varies dramatically from country to country. If taxes are high, the asking rate of return would be higher.

3. *Transaction costs:* Imposition of higher taxes is a direct way to segment the market. Another way which segments the market indirectly is to quote larger spread, indicating low degree of competition among brokers and dealers.

4. *Exchange rate fluctuations:* If exchange rates fluctuate, the investors fear the market and therefore they ask for higher rate of return.

5. *Small country bias:* Small countries have small markets, therefore the economies of scale are not possible. Hence, the asking rate of return usually becomes higher.

6. *Political risk:* The possibility of political risk increases the cost of capital. Greater the political risk index, higher is the risk premium.

7.4 THE COST OF EQUITY CAPITAL

The cost of equity capital for a firm is the minimum rate of return necessary to induce investors to buy or hold the firm's stock. This required return equals a basic yield covering the time value of money plus a premium for risk. Because owners of common stock have only a residual claim on corporate income, their risk is the greatest, and so also are the returns they demand.

Alternatively, the cost of equity capital is the rate used to capitalize total corporate cash flows. As such, it is just the weighted average of the required rates of return on the firm's individual activities. From this perspective, the company is a mutual fund of specified projects, selling a compound security to capital markets. According to the principle of value

additivity, the value of this compound security equals the sum of the individual values of the projects.

Although the two definitions are equivalent, the latter view is preferred from a conceptual standpoint because it focuses on the most important feature of the cost of equity capital since this cost is not an attribute of the firm but is a function of the riskiness of the activities in which it engages. Thus, the cost of equity capital for the firm as a whole can be used to value the stream of future equity cash flows-that is, to set a price on equity shares in the firm. It cannot be used as a measure of the required return on equity investments in future projects unless these projects are of a similar nature to the average of those already being undertaken by the firm.

One approach to determining the project-specific required return on equity is based on modern capital market theory. According to this theory, an equilibrium relationship exists between an asset's required return and its associated risk, which can be represented by the capital asset pricing model or CAPM:

$$r_i = r_f + \beta_i(r_m - r_f) \qquad (1)$$

Where

r_i = equilibrium expected return for asset i

r_f = rate of return on a risk-free asset, usually measured as the yield on a 30-day government Treasury bill

r_m = expected return on the market portfolio consisting of all risky assets $\beta_i = \text{cov}(r_i, r_m)/\sigma^2(r_m)$, where $\text{cov}(r_i, r_m)$ refers to the covariance between returns on security i and the market portfolio and $\sigma^2(r_m)$ is the variance of returns on the market portfolio.

The CAPM is based on the notion that intelligent, risk-averse shareholders will seek to diversify their risks, and as a consequence, the only risk that will be rewarded with a risk premium will be systematic risk. As can be seen from Equation 1, the risk premium associated with a particular asset i is assumed to equal β_i (r_m – r_f), where β_i is the systematic, or non-diversifiable risk of the asset. In effect, β (beta) measures the correlation between returns on a particular asset and returns on the market portfolio, The term r_m - r_f is known as the market risk premium.

Where the returns and financial structure of an investment are expected to be similar to those of the firm's typical investment, the corporate-wide cost of equity capital may serve as a reasonable proxy for the required return on equity of the project. In this case estimates of the value of the project's beta can be found either by direct computation using the CAPM or through professional investment companies that keep track of company betas.

It should be emphasized again that using a company beta to estimate the required return on a project's equity capital is valid only for investments with financial characteristics typical of the "pool" of projects represented by the company. This cost-of-equity capital estimate is useless in calculating project-specific required returns on equity when the characteristics of the project diverge from the corporate norm.

7.5 THE WEIGHTED AVERAGE COST OF CAPITAL FOR FOREIGN PROJECTS

The required return on equity for a particular investment assumes that the financial structure and risk of the project is similar to that for the firm as a whole. This cost of equity capital, k_e is then combined with the

after-tax cost of debt, i_d (1 – t), yield a weighted average cost of capital (WACC) for the parent and the project, k_0 computed as

$$K_0 = (1 - L)\, k_e + L i_d (1 - t) \qquad (2)$$

where *L* is the parent's debt ratio (debt to total assets). This cost of capital is then used as the discount rate in evaluating the specific foreign investment. It should be stressed that k_o is the required return on the firm's stock given the particular debt ratio selected.

Two caveats in employing the weighted average cost of capital are appropriate here. First, the weights must be based on the proportion of the firm's capital structure accounted for by each source of capital using *market,* not book values. Second, in calculating the WACC, the firm's historical debt-equity mix is not relevant. Rather, the weights must be marginal weights that reflect the firm's target capital structure, that is, the proportions of debt and equity the firm plans to use in the future.

Book value of weights: The book value weights are derived from the stated values of individual components of the capital structure on the firm's current balance sheet. There are two major advantages to book value weights, (i) the proportions of the capital structure are stable over time because book value weights do not depend on market prices, and (ii) book value weights are easy to determine because they are derived from stated values on the firm's balance sheet.

One important problem with these weights is that the value of bonds and equity change over time because of the change in market conditions therefore these may not reflect the desired value of capital structure.

Market value weights: Market value weights are based on the current market prices of bonds and stock. Because the primary goal of a firm is to maximize its market value, therefore this set of weights are consistent with the company's objective. The market value of the company's

securities depends on the expected earnings of the company and the risk of the securities as perceived by the investors. Thus the market values reflect assessments of current buyer and sellers of future earnings and the risk. This weighted average cost of capital with market value weights should be the right average rate of return required by the investors from the firm's securities.

Example 1. Estimating the weighted average cost of capital

Suppose a company is financed with 60 per cent common stock, 30 per cent debt, and 10 per cent preferred stock, with respective after-tax costs of 20 per cent, 6 per cent, and 14 per cent. Based on the financing proportion and the after-tax costs of the various capital component and Equation 2, the WACC for this firm is calculated as 15.2 per cent (0.6 × 0.20 + 0.3 × 0.06 + 0.1 × 0.14). If the net present value of those cash flows-discounted at the weighted average cost of capital is positive, the investment should be undertaken; if it is negative, the investment should be rejected.

However, both project risk and project financial structure can vary from the corporate norm. It is necessary, therefore, to adjust the costs and weights of the different cost components to reflect their actual values.

7.5.1 Costing various sources of funds

Suppose a foreign subsidiary *requires I* dollars to finance a new investment to be funded as follows: *P* dollars by the parent; E_f *dollars* by the subsidiary's retained earnings; and D_f dol1ars by foreign debt, with $P + E_f + D_f = I$. To compute the projects weighted cost of capital, we first must compute the individual cost of each component.

Parent company funds: The required rate of return on parent company funds is the firm's marginal cost of capital, k_0. Hence, parent funds invested overseas should yield the parent's marginal cost of capital

provided that the foreign investments undertaken do not change the overall riskiness of the MNC's operations.

Retained earnings: The cost of retained earnings overseas, k_s is a function of dividend withholding taxes, tax deferral, and transfer costs. In general, if *T* equals the incremental taxes owed on earnings repatriated to the parent, then $k_s = k_e(1 - T)$.

Local currency debt: The after-tax cost of borrowing locally, i_f equals the sum of the after-tax interest expenses plus the expected exchange gain or loss.

7.5.2 Computing the weighted average cost of capital

With no change in risk characteristics, the parent's after-tax cost of debt and equity remain at i_d (1 – t) and k_s respectively. As introduced above, the subsidiary's cost of retained earnings equals *k,* and its expected after-tax cost of foreign debt equals i_f. Under these circumstances the weighted cost of capital for the project equals

$$K_I = k_0 - a(k_e - k_s) - b[i_d(1 - t) - i_f] \qquad (3)$$

Where $a = E_f/I$ and $b = D_f/I$. If this investment changes the parent's risk characteristics in such a way that its cost of equity capital is k'_e, and its cost of debt i_d rather than i'_d, Equation 3 becomes instead

$$K_I = k_0 + (1 - L)(k'_e - k_e) + L(i'_d - i_d)(1 - t) - a(k'_e - k_s) - b[i'_d(1 - t) - i_f] \qquad \ldots(4)$$

Example 2. Estimating a foreign project's weighted average cost of capital

Suppose that a new foreign investment requires Rs. 100 million in funds. Of this total, Rs. 20 million will be provided by parent company funds, Rs. 25 million by retained earnings in the subsidiary, and Rs. 55 million

through the issue of new debt by the subsidiary. The parent's cost of equity equals 14 per cent, and its after-tax cost of debt is 5 per cent. If the firm's current debt ratio, which is considered to be optimal, is 0.3 then k_0 equals 11.3 per cent (0.14 × 0.7 + 0.05 × 0.3). However, this project has higher systematic risk than the typical investment undertaken by the firm, thereby requiring rate of return of 16 per cent on new parent equity and 6 per cent on new parent debt. Based on an incremental tax of 8 per cent on repatriated earnings, the cost of retained earnings is estimated to be 14.7 per cent [0.16 × (1 – 0.08). Let the nominal rate of interest be 20 per cent, with an anticipated average annual devaluation of 7 per cent. Then with a foreign tax rate of 40 per cent, the expected after-tax dollar cost of the debt is 4.2 per cent [0.20 × (1 – 0.4) (1 – 0.07) – 0.07].

Applying equation 4, the project's weighted average cost of capital is

K_f = 0.113 + 0.7 (0.16 – 0.14) + 0.3 (0.06 – 0.05) – [25/1000 (0.16 – 0.147) – 55/100 (0.06 – 0.042)] = 0.117.

The parent's weighted average cost of capital for this project would have been 13 per cent (0.16 × 0.7 + 0.06 × 0.3) in the absence of the retained earnings and foreign debt financing.

7.6 THE ALL-EQUITY COST OF CAPITAL FOR FOREIGN PROJECTS

The various adjustments needed to go from the weighted average cost of capital for the firm to the weighted average cost of capital for the project makes it a somewhat awkward technique to use at times. An alternative is the use of an all-equity discount rate, k^*, that abstracts from the project's financial structure and that is based solely on the riskiness of the project's anticipated cash-flows. In other words, the alI-equity cost of

capital equals the company's cost of capital if it were all-equity financed, that is, with no debt.

To calculate the all-equity rate, we rely on the CAPM introduced earlier in Equation 1:

$$k^* = r_f + (\beta^*(r_m - r_f) \qquad (5)$$

where β^* is the all-equity beta— that is, the beta associated with the unleverage cash flows.

Example 3. Estimating a foreign project's cost of capital

Suppose that a foreign project has an all-equity beta of 1.15, the risk-free return is 7 per cent, and the required return on the market is estimated at 15 per cent. Then based on Equation 5, the project's cost of capital is

$K^* = 0.07 + 1.15\ (0.15 – 0.07) = 16.2$ per cent

In reality, of course, the firm will not be able to estimate β^* with the degree of precision implied here. Instead, it will have to use guesswork based on theory. The considerations involved in the estimation process are discussed in the following section.

If the project is of similar risk to the average project selected by the firm, it is possible to estimate β^* by reference to the firm's stock price beta, β_e. In other words, β_e is the beta that appears in the estimate of the firm's cost of equity capital, k_e, given its current capital structure.

To transform β_e into β^*, we must separate out the effects of debt financing. This operation is known as *unlevering,* or converting a levered equity beta to its unlevered or all-equity value. Unlevering can be accomplished by using the following approximation:

$$\beta^* = \frac{\beta_e}{1 + (1 - t)D/E} \qquad (6)$$

where *t* is the firm's marginal tax rate, and *DIE* is its current debt-to-equity ratio. Thus, for example, if a firm has a stock price beta of 1.1, a debt/equity ratio of 0.6, and a marginal tax rate of 35 per cent, Equation 6 estimates its all-equity beta as 0.79 [1.1/(1 + 0.65 × 0.6)].

7.7 DISCOUNT RATES FOR FOREIGN INVESTMENTS

The importance of the CAPM for the international firm is that the relevant component of risk in pricing a firm's stock is its systematic risk -that is, that portion of return variability that cannot be eliminated through diversification. Evidence suggests that most of the economic and political risk faced by MNCs is unsystematic risk, which therefore can be eliminated through diversification on the level of the individual investor. Although these risks maybe quite large, they should not affect the discount rare to be used in valuing foreign projects.

On the other hand, much of the systematic or general market risk affecting a company, at least as measured using a stock index such as the Standard and Poor's 500, is related to the cyclical nature of the national economy in which the company is domiciled. Consequently, the returns on a project located in a foreign country whose economy is not perfectly synchronous with the home country's economy should be less highly correlated with domestic market returns than the returns on a comparable domestic project. If this is the case, then the systematic risk of a foreign project actually could be lower than the systematic risk of its domestic counterpart.

Paradoxically, it is the less developed countries (LDCs), where political risks are greatest, that are likely to provide the largest diversification benefits. By contrast, the correlation among the economic cycles of

developed countries is considerably stronger, so the diversification benefits from investing in industrialized countries, from the standpoint of a western investor are proportionately less.

It should be noted, however, that the systematic risk of projects even in relatively isolated LDCs is unlikely to be far below the average for all projects because these countries are still tied into the world economy. The important point about projects in LDCs, then, is that their ratio of systematic to total risk generally is quite low; their systematic risk, although perhaps slightly lower, is probably not significantly less than that of similar projects located in industrialized countries.

Even if a nation's economy is not closely linked to the world economy, the systematic risk of a project located in that country might still be rather large. For example, a foreign copper-mining venture probably will face systematic risk very similar to that faced by an identical extractive project in the United States, whether the foreign project is located in Canada, Chile, or Zaire. The reason is that the major element of systematic risk in any extractive project is related to variations in the price of the mineral being extracted, which is set in a world market. The world market price, in turn, depends on worldwide demand, which itself is systematically related to the state of the world economy, By contrast, a market-oriented project in an LDC, whose risk depends largely on the evolution of the domestic market in that country, is likely to have a systematic risk that is small in both relative and absolute terms.

An example of the latter would be a Ford plant in Brazil whose profitability is closely linked to the state of the Brazilian economy. The systematic risk of the project, therefore, largely depends on the correlation between the Brazilian economy and the US economy. Although positive, this correlation is much less than 1.

Thus, *corporate international diversification* should prove beneficial to shareholders, particularly where there are barriers to *international portfolio diversification.* To the extent that multinational firms are uniquely able to supply low-cost international diversification, investors may be willing to accept a lower rate of return on shares of MNCs than on shares of single-country firms. By extension, the risk premium applied to foreign projects may be lower than the risk premium for domestic ones; that is, the required return on foreign projects may be less than the required return on comparable domestic projects. The net effect may be to enable MNCs to undertake overseas projects that would otherwise be unattractive.

However, if international portfolio diversification can be accomplished as easily and as cheaply by individual investors, then, although required rates of return on MNC securities would be lower to reflect the reduced co-variability of MNC returns caused by international diversification, the discount rate would not be reduced further to reflect investors' willingness to pay a premium for the indirect diversification provided by the shares of MNCs. In fact, investors actually undertake very little foreign portfolio investment. The lack of widespread international portfolio diversification has an important implication for estimating the beta coefficient.

7.8 ISSUES IN ESTIMATING FOREIGN PROJECT'S BETA

Although the CAPM is the model of choice for estimating the cost of capital for foreign projects, the type of information that is needed to estimate foreign subsidiary betas directly– a history of past subsidiary returns or future subsidiary returns relative to predicted market returns does not exist. About the only practical way to get around this problem is to find publicly traded firms that share similar risk characteristics and use the average beta for the portfolio of corporate surrogates to proxy for

the subsidiary's beta. This approach, however, introduces three additional questions for a multinational:

1. *Should the corporate proxies be* Indian or *local (i.e., foreign) companies?* Although local companies should provide a better indication of risk, such companies may not exist. By contrast, selecting Indian proxies ensures that such proxies and their data exist, but their circumstances-and hence their betas– may be quite different than those facing the foreign subsidiaries. In addition, it is important to differentiate between the unsystematic risks faced by a foreign project– which individual investors can eliminate through diversification– and the systematic risks affecting that project, which may be small relative to the project's total risk.

2. *Is the relevant base portfolio against which the proxy betas are estimated the Indian market portfolio, the local portfolio or the world market portfolio?* Selecting the appropriate portfolio matters because a risk that is systematic in the context of the local market portfolio may well be diversifiable in the context of the Indian or world portfolio. If this is the case, using the local market portfolio to calculate beta will result in a higher required return– and a less desirable project– than if beta were calculated using the Indian or world market portfolio.

3. *Should the market risk premium be based on the Indian market or the local market?* One argument in favor of using the local-market risk premium is that this is the risk premium demanded by investors on investments in that market. On the other hand, estimates of the local-market risk premium may be subject to a good deal of statistical error. Moreover, such estimates may be irrelevant to the extent that an MNC's investors are not the same as the

investors in the local market and the two sets of investors measure risk differently.

Let us now address those three questions and their related issues. As in any application of a theoretical model, the suggested answers are not precisely right but rather are based on a mix of theory, empirical evidence, and judgment.

Proxy companies: Three alternatives for estimating proxy betas are proposed here. These alternatives are presented in order of their desirability. Other approaches are also mentioned.

Local Companies: As much as possible, the corporate proxies should be local companies. The returns on an MNC's local operations are likely to depend in large measure on the evolution of the local economy. Inevitably, therefore, the timing and magnitude of these returns will differ from those of the returns generated by comparable Indian companies. This means that the degree of systematic risk for a foreign project, at least as measured from the perspective of an Indian investor, may well be lower than the systematic risk of comparable Indian companies. Put differently, using Indian companies and their returns to proxy for the returns of a foreign project will likely lead to upward biased estimate of the risk premium demanded by the MNC's investors.

Some indication of the upward bias in the estimate of beta imparted by using Indian proxy companies to estimate the betas for foreign projects is provided by presenting foreign market betas relative to the Indian index for some foreign countries. The betas for foreign markets from an Indian perspective are calculated in the same way that asset betas are calculated:

$$\text{Foreign market beta} = \frac{\text{Correlation with Indian market} \times \text{Standard deviation of foreign market}}{\text{Standard deviation of Indian market}}$$

Proxy Industry: If foreign proxies are not directly available, a second alternative is to find a proxy industry in the local market, that is, one whose Indian industry beta is similar to that of the project's Indian industry beta.

7.9 SUMMARY

The cost of capital constitutes an integral part of foreign capital budgeting decisions in that it is to be used as the minimum required rate of return expected to be earned by the proposed investment under consideration. In view of its significance, its correct estimation/computation is imperative. Like domestic corporate firms, the cost of capital of the multinational corporate enterprise is the weighted average cost (k_0) of long-term sources of finance, namely, equity capital, preference capital, borrowed funds (debt) and retained earnings. While retained earnings have implicit/opportunity costs, other long-term sources of finance have explicit costs.

For a multinational group/parent, the determination of cost of capital is more complex than that for local corporate firms; it is to be computed for the group as a whole and also separately for its subsidiaries.

In the context of the parent MNC, in the computation of effective after-tax cost of all the four sources of long-term finance, the finance manager should take into account, exchange risk, flotation costs, tax rates, tax laws (relating to the treatment of exchange losses and gains, withholding, repatriation, amortization of flotation costs, etc.), timing of payment of interest and refund of principal (in the case of debt), transfer costs involved in repatriation of funds to equity holders, rate of inflation, and so on.

7.10 KEYWORDS

Beta Measures responsiveness of changes in the return of an individual security/currency with the change in market return/exchange rate.

Discount Rate The percentage interest rate used for converting future incomes and costs into current, or present values. Usually set equal to the opportunity cost of funds, which is what shareholders could otherwise earn on an alternative investment of equal risk.

Time Value The part of an option premium that comes from the possibility that an option might have higher intrinsic value in the future than at the moment.

Weighted Average Cost of Capital The per annum cost of funds raised via debt (bank borrowing, bonds) and equity (selling shares), where the two items are weighted by their relative importance.

7.11 SELF ASSESSMENT QUESTIONS

1. What are the problems faced in determining the cost of equity capital compared to other securities? Briefly enumerate approaches to determination of such a cost.

2. The weighted average cost of capital is superior to marginal cost of capital as a discount rate to evaluate capital budgeting of a project. Explain the rationale along with an appropriate example.

3. "If the parent's cost of capital is 12 per cent, its equity investment in a subsidiary therefore is equivalent to 12 per cent." Do you agree? If not, why not?

4. "We should always borrow in a currency which is likely to devalue as it minimizes financial costs." Do you think it is a good rule of thumb? Explain.

5. What factors may cause increase in the cost of capital as the debt/equity ratio increases?

6. What factors should be considered in deciding whether the cost of capital for a foreign affiliate should be higher, lower, or the same as the cost of capital for a comparable domestic operation?

7.12 REFERENCES/SUGGESTED READINGS

Adler, Michael, "The Cost of Capital and Valuation of a Two-Country Firm", *Journal of Finance*, March 1974, pp. 119-132.

Apte, P.G.: Global Finance, Tata McGraw Hill, New Delhi, 2001.

Booth, Lawrence D., "Capital Budgeting Frameworks for the Multinational Corporation", *Journal of International Business Studies*, fall 1982, pp. 113-123.

Eun and Resnich: International Financial Management, Tata McGraw Hill, New Delhi, 2002.

Jain, Josette Peyrard and Surendra S. Yadav. International Financial Management, McMillan Publication, New Delhi, 2001.

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Course Code: **FM-406**	Vetter: **Dr. B.S. Bodla**
Lesson: **8**	

CAPITAL STRUCTURE OF MULTINATIONAL FIRM

STRUCTURE

8.0 OBJECTIVES

After reading this lesson, you should be able to-

- Understand how to determine an optimum mix of debt and equity for an MNC;
- Know the characteristics of an MNC that might cause its cash flow to be more volatile than a domestic firm;
- Discuss advantages and disadvantages of a localized financial structure for an MNC;

- Resolve whether the capital structure of the foreign subsidiary should conform to that of the parent company; and
- Understand the concepts of joint ventures and optimal capital structure

8.1 INTRODUCTION

In estimating the weighted average cost of capital for an MNC or its affiliates, we take the capital structure as given. However, the capital structure itself should be the outcome of an optimal global financial plan. This plan requires consideration not only of the component costs of capital, but also of how the use of one source affects the cost and availability of other sources. A firm that uses too much debt might find the cost of equity (and new debt) financing prohibitive. The capital structure problem for the multinational enterprise, therefore, is to determine the mix of debt and equity for the parent entity and for all consolidated and unconsolidated subsidiaries that maximizes shareholder wealth.

The focus is on the consolidated, world-wide capital structure because suppliers of capital to a multinational firm are assumed to associate the risk of default with the MNC's world-wide debt ratio. This association stems from the view that bankruptcy or other forms of financial distress in an overseas subsidiary can seriously impair the parent company's ability to operate domestically. Any deviations from the MNC's target capital structure will cause adjustments in the mix of debt and equity used to finance future investments.

Another factor that may be relevant in establishing a worldwide debt ratio is the empirical evidence that earnings variability appears to be a decreasing function of foreign-source earnings. Because the risk of bankruptcy for a firm is dependent on its total earnings variability, the

earnings diversification provided by its foreign operations may enable the multinational firm to leverage itself more highly than can a purely domestic corporation, without increasing its default risk.

8.2 CAPITAL STRUCTURE OF MNC VERSUS DOMESTIC FIRM

There is no consensus on its issue because some characteristics of MNC may favour a debt intensive capital structure while other characteristics may favour an equity intensive capital structure. The arguments are as follows:

A debt intensive capital structure would favour a firm that has stable net cash inflows since it could readily make the interest payments on debt with these cash inflows. Since the MNCs are often well diversified geographically, the diversification reduces risk, therefore, the impact of any single event on net cash flow is tolerable. Consequently, an MNC will be able to handle a greater debt burden as a percentage of capital than a purely domestic firm.

The other characteristics of an MNC that might cause its cash flow to be more volatile than a purely domestic firm are:

(a) The earnings of subsidiary company earnings are subject to host government tax rules that could change over time;

(b) Host government could force the local subsidiaries to maintain all earnings within the country. This is the case of blocked funds which destabilizes the net cash flows from the subsidiary to the parent. In the absence of cash flow, it may not be able to make its periodic interest payments to creditors. In this case, MNCs should maintain an equity intensive capital structure. However, a well diversified MNC would not face this kind of problem;

(c) The MNCs are affected by exchange rate variations, their net cash flows may be more unstable, e.g. if rupee strengthens, an Indian

based MNC may generally prefer that its subsidiaries remain their earnings by reinvesting in them in their respective countries. However, if the capital structure is highly leveraged, the MNC's parent may need rupee inflows immediately to make its interest payments to creditors, and

(d) If an MNC is well diversified among countries, then the subsidiary earnings are in a variety of currencies. Therefore, the strengthening of rupee against one or a few currencies will not significantly reduce the total amount of rupees received by the Indian headquarters after converting foreign earnings from various countries into rupees. The MNC could therefore maintain a debt intensive capital structure even though it relies on foreign subsidiary earnings to make interest payments on its outstanding debt.

Studies on US MNCs indicate that the MNCs had significantly lower financial leverage than the domestic firms but that the results varied significantly among industries.

Thus we see that the capital structure decision should be made individually by each firm as after considering all characteristics that might affect its ability to make periodic interest payments on outstanding debt. MNCs that generate more stable net cash flows can maintain a leveraged capital structure. While adapting to the local capital structure following advantages and disadvantages should be borne in mind:

The main advantages are as follows:

1. A localized financial structure reduces the criticism of foreign affiliate that had been operating with too high a debt ratio.
2. A localized financial structure helps in evaluating the returns on investments, relative to local competitors in the same industry.

3. In economies where interest rates are relatively high because of scarcity of capital, the penalty paid for borrowing local funds reminds the management that unless the returns on the assets, i.e. negative leverage they are probably misallocating the scarce resources.

The disadvantages of localized capital structures are:

1. A subsidiary might be having the comparative advantage only in sourcing of capital from the parent. Therefore once it starts adopting the local capital structure, it looses the comparative advantage.
2. If the financial structure of each subsidiary company is localized, the consolidation of the balance sheet of all the subsidiaries may not conform to any particular financial structure.
3. This feature could increase perceived financial risk.
4. This may push the consolidated debt ratio out of discretionary range of acceptable debt ratios in the flat area of the cost of capital.
5. A multinational firm will not be able to replace the high cost debt of an affiliate with low cost debt if the markets are segmented and the Fisher effect does not operate.
6. The debt ratio of a foreign affiliate, in reality, is cosmetic. The lenders look towards parent rather than the subsidiary for amortisation of loans.

8.3 FOREIGN SUBSIDIARY CAPITAL STRUCTURE

After a decision has been made regarding the appropriate mix of debt and equity for the entire corporation, questions about individual operations can be raised. How should MNCs arrange the capital structures of their foreign affiliates? And what factors are relevant in making this decision? Specifically, the problem is whether foreign subsidiary capital structures *should*

- Conform to the capital structure of the parent company
- Reflect the capitalization norms in each foreign country
- Vary to take advantage of opportunities to minimize the MNC's cost of capital

The parent company could finance its foreign affiliates by raising funds in its own country and investing these funds as equity. The overseas operations would then have a zero debt ratio (debt/total assets). Alternatively, the parent could hold only one unit of currency of share capital in each affiliate and require all to borrow on their own, with or without guarantees; in this case, affiliate debt ratios would approach 100 per cent. Or the parent could itself borrow and relend the money as intra-corporate advances. Here again, the affiliates' debt ratios would be close to 100 per cent. In all these cases, the total amount of borrowing and the debt/equity mix of the consolidated corporation are identical. Thus, the question of an optimal capital structure for a foreign affiliate is completely distinct from the corporation's overall debt/equity ratio.

Moreover, any accounting rendition of a separate capital structure for the subsidiary is wholly illusory *unless* the parent is willing to allow its affiliate to default on its debt.

Fig. 8.1. Subsidiary capital structure: Debt-to-Equity Ratios

I. 100% Parent Financed		**II. 100% Parent Financed**	
Rs. 100	D = 50 E = 50	Rs. 100	D = Rs. 100 E = 0
D/E = 1 : 1		D/E = Infinity	
III. 100% Parent Financed		**IV. 100% Bank Financed**	
Rs. 100	D = Rs. 0 E = 100	Rs. 100	D = Rs. 100 E = 0
D/E = 0		D/E = Infinity	

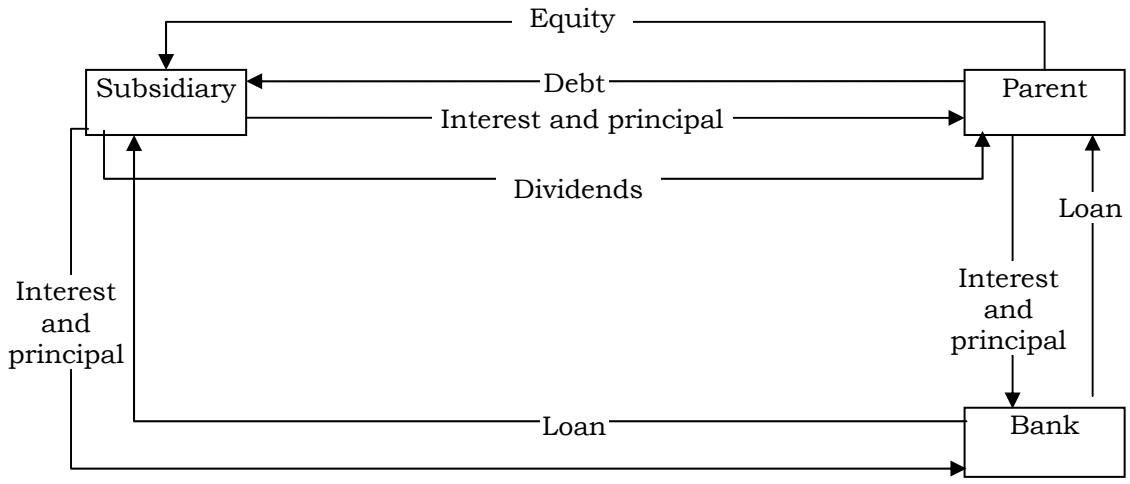
As long as the rest of the MNC group has a legal or moral obligation or sound business reasons for preventing the affiliate from defaulting, the individual unit has no independent capital structure. Rather, its true debt/equity ratio is equal to that of the consolidated group. Fig. 8.1 and 8.2 show the stated and the true debt-to-equity ratios for a subsidiary and its parent for four separate cases. In cases I, II, and III, the parent borrows Rs.100 to invest in a foreign subsidiary, in varying portions of debt and equity. In case IV, the subsidiary borrows the Rs.100 directly from the bank. Depending on what the parent calls its investment, the subsidiary's debt-to-equity ratio can vary from zero to infinity. Despite this variation, the consolidated balance sheet shows a debt-to-equity ratio after the foreign investment of 4 : 7, regardless of how the investment is financed and what it is called.

Fig. 8.3 shows that the financing mechanism does affect the pattern of returns, whether they are called dividends or interest and principal payments. It also determines the initial recipient of the cash flows. Are the cash flows from the foreign unit paid directly to the outside investor (the bank) or are they first paid to the parent, which then turns around and repays the bank?

Fig. 8.2. Consolidated parent balance sheet debt-to-equity ratios

<table>
<tr><td colspan="4">Before foreign investment</td></tr>
<tr><td colspan="2">Rs. 1000</td><td colspan="2">D = Rs. 300
E = 700</td></tr>
<tr><td colspan="4">D/E = 3 : 7</td></tr>
<tr><td colspan="4">After Foreign Investment</td></tr>
<tr><td colspan="2">Case I, II, and III Parent Financed with 100% Bank Debt</td><td colspan="2">Case IV, Subsidiary Financed with 100% Bank debt</td></tr>
<tr><td>Domestic Rs. 1,000</td><td>D= Rs. 400</td><td>Domestic Rs.1,000</td><td>D= Rs. 400</td></tr>
<tr><td>Foreign 100</td><td>E=700</td><td>Foreign 100</td><td>E=700</td></tr>
<tr><td colspan="2">D/E = 4 : 7</td><td colspan="2">D/E = 4 : 7</td></tr>
</table>

Fig. 8.3. Subsidiary capital structure



The point of this exercise is to show that like the case for the corporation as a whole, an affiliate's degree of leverage does not determine its financial risk. Therefore, the first two options-having affiliate financial structures conform to parent or local norms– are unrelated to shareholder wealth-maximization.

The irrelevance of subsidiary financial structures seems to be recognized by multinationals. In a 1979 survey by Business International of eight U.S.-based MNCs, most of the firms expressed little concern with the debt/equity mixes of their foreign affiliates. Their primary focus was on the worldwide, rather than individual, capital structure. The third option of varying affiliate financial structures to take advantage of local financing opportunities appears to be the appropriate choice. Thus, within the constraints set by foreign statutory or minimum equity requirements, the need to appear to be a responsible and good guest, and the requirements of a worldwide financial structure, a multinational corporation should finance its affiliates to minimize its incremental average cost of capital.

A subsidiary with a capital structure similar to its parent may forgo profitable opportunities to lower its cost of funds or its risk. For example,

rigid adherence to a fixed debt/equity ratio may not allow a subsidiary to take advantage of government-subsidized debt or low-cost loans from international agencies. Furthermore, it may be worthwhile to raise funds locally if the country is politically risky. In the event the affiliate is expropriated, for instance, it would default on all loans from local financial institutions. Similarly, borrowing funds locally will decrease the company's vulnerability to exchange controls. Local currency (LC) profits can be used to service its LC debt.

Borrowing in the local currency also can help a company reduce its foreign exchange exposure. If financing opportunities in various currencies are fairly priced, firms can structure their liabilities to reduce their exposure to foreign exchange risk at no added cost to shareholders. The basic rule is to finance assets that generate foreign-currency cash flows with liabilities denominated in those same foreign currencies.

On the other hand, forcing a subsidiary to borrow funds locally to meet parent norms may be quite expensive in a country with a high-cost capital market or if the subsidiary is in a tax-loss-carryforward position. In the latter case, because the subsidiary cannot realize the tax benefits of the interest write-off, the parent should make an equity injection financed by borrowed funds. In this way, the interest deduction need not be sacrificed.

8.4 COST MINIMIZING APPROACH TO GLOBAL CAPITAL STRUCTURE

The cost-minimizing approach to determining foreign-affiliate capital structures would be to allow subsidiaries with access to low-cost capital markets to exceed the parent-company capitalization norm, while subsidiaries in higher-capital-cost nations would have lower target ratios. These costs must be figured on an after-tax basis, taking into account the company's worldwide tax position.

A subsidiary's capital structure is relevant only insofar as it affects the parent's consolidated worldwide debt ratio. Foreign units are expected to be financially independent after the parent's initial investment. The rationale for this policy is to 'avoid giving management a crutch." By forcing foreign affiliates to stand on their own feet, affiliate managers presumably will be working harder to improve local operations, thereby generating the internal cash flow that will help replace parent financing. Moreover, the local financial institutions will have a greater incentive to monitor the local subsidiary's performance because they can no longer look to the parent company to bail them out if their loans go sour.

However, companies that expect their subsidiaries to borrow locally had better be prepared to provide enough initial equity capital or subordinated loans. In addition, local suppliers and customers are likely to shy away from a new subsidiary operating on a shoestring if that subsidiary is not receiving financial backing from its parent. The foreign subsidiary may have to show its balance sheet to local trade creditors, distributors, and other stakeholders. Having a balance sheet that shows more equity demonstrates that the unit has greater staying power.

8.5 JOINT VENTURES

Because many MNCs participate in joint ventures, either by choice or necessity, establishing an appropriate financing mix for this form of investment is an important consideration. The previous assumption that affiliate debt is equivalent to parent debt in terms of its impact on perceived default risk may no longer be valid. In countries such as Japan and Germany, increased leverage will not necessarily lead to increased financial risks, due to the close relationship between the local banks and corporations. Thus, debt raised by a joint venture in Japan, for example, may not be equivalent to parent-raised debt in terms of its impact on default risk. The assessment of the effects of leverage in a joint venture

requires a qualitative analysis of the partner's ties with the local financial community, particularly with the local banks.

Unless the joint venture can be isolated from its partners' operations, there are likely to be some significant conflicts associated with this form of ownership. Transfer pricing, setting royalty and licensing fees, and allocating production and markets among plants are just some of the areas in which each owner has an incentive to engage in activities that will harm its partners. These conflicts explain why bringing in outside equity investors is generally such an unstable form of external financing.

Because of their lack of complete control over a joint venture's decisions and its profits, most MNCs will, at most, guarantee joint-venture loans in proportion to their share of ownership. But where the MNC is substantially stronger financially than its partner, the MNC may wind up implicitly guaranteeing its weaker partner's share of any joint-venture borrowings, as well as its own. In this case, it makes sense to push for as large an equity base as possible, the weaker partner's share of the borrowings is then supported by its larger equity investment.

8.6 OPTIMAL CAPITAL STRUCTURE

When companies mobilize funds, they are mainly concerned with the marginal cost of funds. The companies should always try to expand keeping in view their optimal capital structure. However, as their capital budget expands in absolute terms, their marginal cost of capital (MCC) will eventually increase. This means that companies can tap the capital market for only some limited amount in the short run before their MCC rise, even though the same optimum capital structure is maintained.

In one analysis, we hold the total amount of capital constant and change only the combination of financing sources. We seek the optimum or target capital structure that yields the lowest cost of capital. Now we

attempt to determine the size of the capital budget in relation to the levels of MCC so that the optimum capital budget can be determined. The optimum capital budget is defined as the amount of investment that maximizes the value of the company. It is obtained at the intersection between the internal rate of return (IRR) and the MCC. At this point, total profit is maximized.

A variety of factors affect a company's cost of capital: its size, access to capital markets, diversification, tax concessions, exchange rate risk, and political risk. The first four factors favour the multinational company, where as the last two factors favour the purely domestic company. Figure 4 shows multinational companies usually enjoy a lower cost of capital than purely domestic companies for a number of reasons. Firstly the multinational companies usually enjoy a lower cost of capital than purely domestic companies for a number of reasons. Firstly the multinational companies may borrow money at lower rates of interest because they are bigger, (ii) they may raise funds in a number of capital markets, (iii) the MNCs are more diversified than purely domestic companies, and (iv) the MNCs are able to lower their overall taxes because they can use tax heavens. The MNCs are less riskier than purely domestic companies and because these not only diversify in domestic investment projects but across countries also. The lower overall risk of multinational companies tends to reduce their overall taxes because they can use tax heavens. The MNCs are less riskier than purely domestic companies and because these not only diversify in domestic investment projects but across countries also. The lower loverall risk of multinational companies tends to reduce their overall cost of capital.

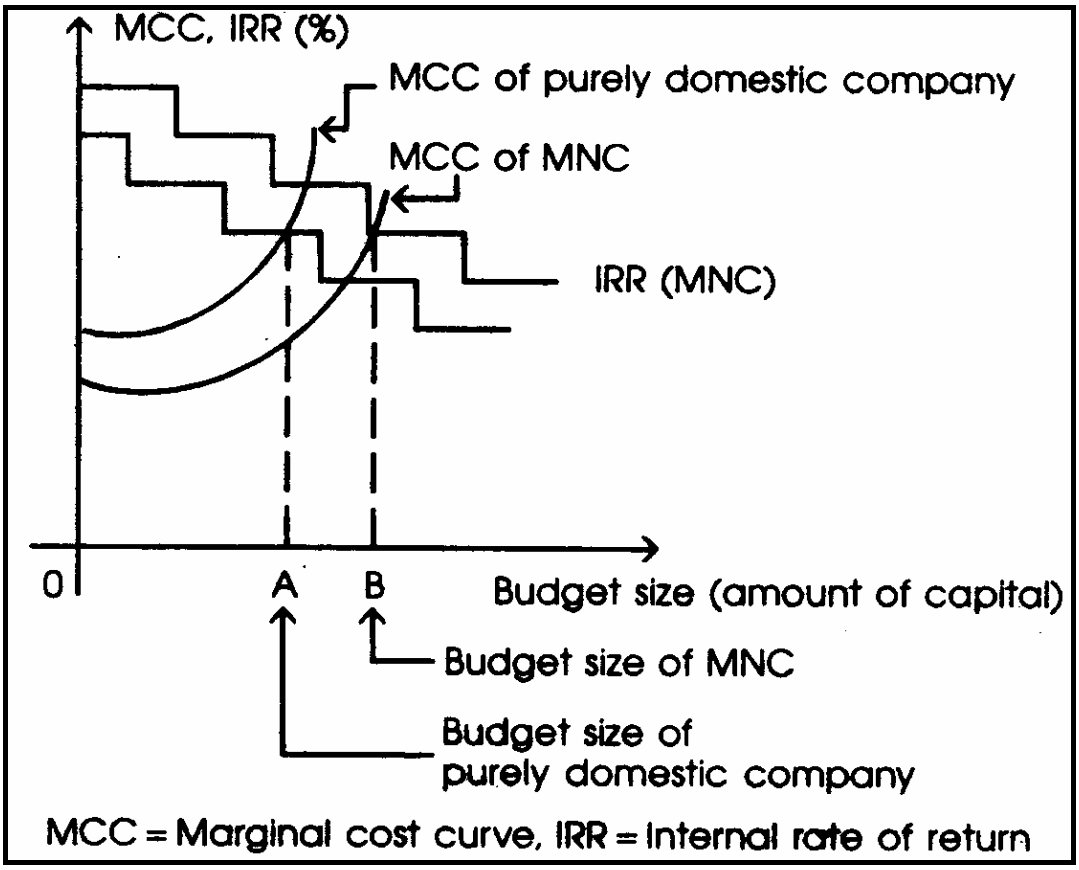


Fig. 8.4. Optimum capital structure

Figure 8.4 shows that the optimum capital budget (B) of a typical multinational company is higher than the capital budget (A) of a purely domestic company. The multinational corporations can tap foreign capital markets, when the domestic markets are saturated and their risk is lower than that of purely domestic companies. International capital availability and lower risk permit multinational companies to lower their cost of capital and maintain a constant MCC for a broad range of their capital budget. They have more investment opportunities than purely domestic companies. These two factors give multinational company higher optimum capital structure than the optimum structure of domestic companies.

8.7 EMPIRICAL STUDIES AND CAPITAL STRUCTURE OF AFFILIATES

To minimize the cost of capital for a given level of business risk and capital budget is an objective that should be implemented from the perspective of the multinational firms. The capital structure of affiliate is relevant only to the extent that it affects this over all objective. Thus an individual affiliate may not really have an independent cost of capital, therefore its financial structure may not be based on the objective of minimizing its own cost of capital. However, the market imperfections and national institutional constraints dictate that variables other than minimizing the cost of capital are often major determinants of debt ratio for affiliates.

Capital structure norms vary widely from one country to another. But various countries also have similar capital structure. Studies have revealed that financial structure of affiliates have relationship with culture (William Sekely and Markham Collins (1988)). It has been found that when countries were grouped on the basis of culture, the firms in the group had the similar debt ratio.

The regional character of the debt ratio was also evident when countries were grouped as per the regional characteristics. Low debt ratios were particular to South East Asia, Latin America and Anglo American group of countries and high debt ratio was particular to Scandinavia, Mediterranean and Indian Peninsula.

Studies also revealed that with in a country neither an industry nor the size were important determinants of debt ratios. However, this contradicts the US based theories that industry is determinant of debt ratio. Comparative studies have revealed that environmental variables are key determinants of debt ratio. Comparative studies have revealed that environmental variables are key determinants of debt ratio. Survey

conducted in US indicated that minimizing the cost of capital is not the main objective of capital structure. The important determinants of capital structure are given below:

(a) *Availability of capital:* If capital in the form of debt is available, the financial structure would be in favour of debt.

(b) *Foreign exchange risk:* Greater volatility of the domestic currency would induce greater risk perception, therefore local capital structure would emerge.

(c) *Cultural and historical factors* also determine the financial structure of a foreign affiliate.

The studies have revealed that for MNCs the minimization of cost of capital is not prime objective of determining the financial structure. There are other objectives also which influence the designing of financial structure.

8.8 SUMMARY

The capital structure affects cost of capital. The parent should design its capital structure in such a manner that its overall cost of capital is the minimum. Debt should be used within the sake limits; excessive use may be counter-productive to the very objective of minimizing the overall cost of capital. Tax advantage (due to use of debt) may be more than offset by the greater financial risk which, in turn, causes higher interest costs as well as higher equity costs (i.e. cost of financial distress).

In the context of subsidiaries, in certain situations, there may be reasons to go for a high levered (more debt dominated) capital structure. For instance, in the event of exchange control, it is easier for subsidiaries to remit interest than make payment of dividends on equity, and repayment of debt is also easier than repatriation of equity funds. Above all,

existence of political and economic risks pertaining to confiscation of assets (expropriation) may be another important factor to go for more debt. Broadly speaking, there are three alternatives available to the parent for deciding the capital structure of a subsidiary, namely (i) conformance to parent-company norms, (ii) adherence to capital structure norms established in host country, and (iii) inductance of a capital structure which enables the parent to have its cost of capital as minimum. Every approach has its merits and demerits. What type of capital structure the subsidiary should go for depends on the circumstances and merits of each case.

8.9 KEYWORDS

Financial Structure Composition of capital raised by a firm- for example, the mix between debt and equity.

Multinational Corporation (MNC) refers to a firm that has business activities and interests in multiple countries.

Optimal Capital Structure That mix of debt and equity capital at which the company has the lowest cost of capital and the lowest level of risk.

Internal Rate of Return (IRR) The discount rate that equates the present value of cash inflows with that of cash outflows.

8.10 SELF ASSESSMENT QUESTIONS

1. What are some of the advantages and disadvantages of having highly leveraged foreign subsidiaries?

2. What financing problems might be associated with joint ventures?

3. Under what circumstances does it make sense for a company to not guarantee the debt of its foreign affiliates?

4. How can financing strategy be used to reduce foreign exchange risk?

5. How can financial strategy be used to reduce political risk?

8.11 REFERENCES/SUGGESTED READINGS

Adler, Michael, "The Cost of Capital and Valuation of a Two-Country Firm", *Journal of Finance*, March 1974, pp. 119-132.

Apte, P.G.: Global Finance, Tata McGraw Hill, New Delhi, 2001.

Booth, Lawrence D., "Capital Budgeting Frameworks for the Multinational Corporation", *Journal of International Business Studies*, fall 1982, pp. 113-123.

Eun and Resnich: International Financial Management, Tata McGraw Hill, New Delhi, 2002.

Jain, Josette Peyrard and Surendra S. Yadav. International Financial Management, McMillan Publication, New Delhi, 2001.

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Lesson: 9	**Vetter:** Dr. B.S. Bodla

DIVIDEND POLICY OF A MULTINATIONAL FIRM

STRUCTURE

9.0 OBJECTIVES

After reading this lesson, you should be able to-

- Understand dividend distribution decisions of multinational firms; and
- Elaborate determinants and their impact on dividend decisions of the firm working in multinational settings/environment.

9.1 INTRODUCTION

Among the four functions of finance, allocation of profit (cash flows) are very important. Since an MNC operates in an environment which is global and integrated, it is quite difficult to decide the dividend distributed to its shareholders (which are spread in different parts of the globe). An MNC raises finance (funds) from outside (abroad) either by way of foreign direct investment (FDI) or purchasing securities from the

financial markets of different countries. The funding is done through bonds which have fixed maturity period or equities which have no fixed maturity period. The liabilities arising out of holding these securities have to be paid to the investors. Since different countries have different tax structures and exchange rates, the dividend decision of an MNC is affected by the rates of exchange, interest rates and volatility in the same. An investor wants to have required return on investment i.e. dividend yield and capital appreciation. The dividend yield is the dividend provided by the MNC to its shareholders and the capital appreciation is the enhancement value due to change in market value of the securities held by the investors. Both components of return are influenced by various macro economic factors like exchange rate, tax rates and interest on borrowings and lending etc. The ultimate objective of the firm is to maximise the wealth (value) of the firm.

9.2 DETERMINANTS OF DIVIDEND BY MNC

International dividend policy is influenced by tax considerations, political risk, and foreign exchange risk, as well as a return for business guidance and technology.

Tax implications: Host-country tax laws influence the dividend decision. Countries such as Germany tax retained earnings at one rate while taxing distributed earnings at a lower rate. Most countries levy withholding taxes on dividends paid to foreign parent firms and investors. Again, most (but not all) parent countries levy a tax on foreign dividends received but allow a 'tax credit' for foreign taxes already paid on that income stream.

Political risk: Political risk may motivate parent firms to require foreign affiliates to remit all locally generated funds in excess of stipulated working capital requirements and planned capital expansions. Such policies, however, are not universal. To enhance the financial self-reliance

of Lincoln Brazil, assuming Brazil is perceived to be politically risky, Lincoln U.S. might not require dividend remittances. In many cases neither extreme is followed. Instead, managerial response to potential government restrictions may be to maintain a constant dividend payout ratio so as to demonstrate that an established policy is being consistently carried out. In the context of Lincoln Brazil, the Brazilian government is more likely to accept the idea of regular dividend payments because they provide a framework based on precedent against which to judge whether a particular dividend is 'normal' or an attempt to transfer liquid funds out of Brazil's currency, to the detriment of Brazil's foreign exchange reserves.

Foreign Exchange Risk: If a foreign exchange loss is anticipated, Lincoln may speed up the transfer of funds from Brazil through dividends. This 'lead' is usually part of a larger strategy of moving from weak currencies to strong currencies and can include speeding up intra-firm payments on accounts receivable and payable. However, decisions to accelerate dividend payments ahead of what might be normal must take into account interest rate differences and the negative impact on host country relations.

Age and size of affiliates: Among other factors that influence dividend policy are the age and size of the foreign affiliate. Older affiliates often provide a greater share of their earnings to their parent, presumably because as the affiliate matures it has fewer reinvestment opportunities.

Availability of funds: Dividends are a cash payment to owners equal to all or a portion of earnings of a prior period. To pay dividends, an affiliate needs both past earnings and available cash. Affiliates sometimes have earnings without cash, because earnings are measured at the time of a sale but cash is received later when the receivable is collected. Profits of rapidly growing affiliates are often tied up in ever-increasing receivables

and inventory. Hence, rapidly growing foreign affiliates may lack the cash to remit a dividend equal to even a portion of earnings.

The reverse may also be true; firms may be receiving cash from the collection of old receivables even when profits are down because current sales have fallen off or current expenses have risen relative to current sales prices. Such firms might want to declare a dividend in order to remove a bountiful supply of cash from a country but lack the earnings against which to charge such payments.

In either of these cases a firm must look at both measured earnings and available cash before settling upon a cash dividend policy. Payment of cash dividends, then, can be considered only in the context of a firm's entire cash budget.

Joint venture factors: Existence of joint-venture partners or local stockholders also influences dividend policy. Optimal positioning of funds internationally cannot dominate the valid claims of independent partners or local stockholders for dividends. The latter do not benefit from the world success of the multinational parent, but only from the success of the particular affiliate in which they own a minority share. Firms might hesitate to reduce dividends when earnings falter. They also might hesitate to increase dividends following a spurt in earnings because of possible adverse reaction to reducing dividends later should earnings decline. Lincoln's affiliates are all 100% owned, so neither Lincoln U.S. nor Lincoln U.K., both of whom own foreign affiliates, is constrained by the wishes of outside shareholders. Many MNEs insist on 100% ownership of affiliates in order to avoid possible conflicts of interest with outside shareholders.

An MNC takes into consideration the following aspects while declaring and distributing dividends.

1. Tax effects

2. Financial statement effects
3. Exchange rate volatility
4. Currency controls
5. Financing requirement availability and cost of funds and the parent company's dividend payout ratio.

The payout ratio of the parent company plays a crucial role in deciding the dividend policy of the MNC. The policy is based on two perspectives.

1. Some firms require same payout ratio (% age) as that of the parent company.
2. Others target payout ratio as a percentage of total overall foreign earnings without receiving the same amount from each subsidiary.

The consequence of first is that if parent company pays 60% of their earnings then foreign operations must contribute at least 60% to meet the target.

Following considerations are required to decide dividend policy of the firm:

(a) Effective tax rates on payments from different subsidiaries. By varying payment ratio among its foreign subsidiaries it can reduce the total tax burden. Once the firm decides to remit dividends to its parent company, it can reduce the tax bill by withdrawing funds from high tax location to low tax location through transfer pricing or in other forms of withdraws.

(b) In addition to the tax considerations, the parent company has also to take into account the fact that dividend withdrawls also shift the liquidity. The value of moving these funds depend upon different opportunity costs of money among various subsidiaries. A subsidiary desirous of borrowing funds in future will have greater opportunity cost than a subsidiary having excess liquidity. Some

subsidiaries may have access to low cost funding source, while the others may have no resource.

(c) Sometimes nations impose restrictions on repatriation to control balance of payment problems. Hence exchange control play major role in deciding dividend policy of the MNC firm.

(d) If on MNC joins hands with a local partner, then due to differing interest of both parties, dividend is to be adjusted.

9.3 DIVIDEND DISTRIBUTION DECISION: SOME ILLUSTRATIONS

Illustration 9.1: Let us calculate the expected return (dividend yield + capital appreciation). Suppose an investor in the USA wants to invest in two equities-one in US and another in India. Let us assume that the dividend received in US is denoted by δ_{US} and in India by δ_{IND}. Also assume exchange rate is (S_o) dollars per rupee and the capital appreciation are α_{US} & α_{IND} in US and India respectively. After k years a dollar invested in US will give the following return.

$\$ (1+ \delta_{US} + \alpha_{US})^k$ while a rupee invested in India will give return as follows:

$\$ (1/S_o) (1+ \delta_{US} + \alpha_{IND})^k (S^e)_k$

Where the $(S^e)_k$ is expected (1NR/USD), exchange rate at the end of k years.

Assume that there is no differential tax on dividend income and capital gains. The investor would invest in Indian stock if return on investment in India > return on investment in US i.e.

$(1/S_o) (1+ \delta_{IN} + \alpha_{IN}) (S^e)_k > (1+ \delta_{US} + \alpha_{US})^k$ ...(1)

and vice-versa is the case of US stock.

Let's further assume that $\hat{S}^e$ denotes the expected annual proportionate rate of change of the exchange rate S. then.

$[(S^e)_k / S_o] = (1 + \hat{S}^e)^k$

the inequality (I) can be written as:

$(1 + \hat{S}^e)(1+ \delta_{IN} + \alpha_{IN}) > (1+ \delta_{US} + \alpha_{US})$

Ignoring the cross products of $\hat{S}^e$, S_{in}, L_{in} this can be approximated by

$1 + \hat{S}^e + \delta_{IN} + \alpha_{IN} > 1+ \delta_{US} + \alpha_{US}$

on $\hat{S}^e > \delta_{US} + \delta_{IN} + (\alpha_{US} - \alpha_{IN})$ ...(2)

Thus, irrespective of lower dividend yield and capital gains, foreign equities are attractive if the foreign currency is expected to appreciate strongly. Now lets see the impact of tax on ordinary income and capital gains. If exchange gains (gains arising from differential exchange rates) are treated as capital gain and capital gains are taxed at lower rate.

Suppose θ_y & θ_k be tax rates for ordinary income and capital gains respectively with θ_y & θ_k the after tax return on US will be

$(1 - \theta_y)\delta_{US} + (1- \theta_k)\alpha_{US}$

and the return on indian investment would be

$(1 - \theta_y)\delta_{IN} + (1-\theta_k)(\alpha_{IN} + \hat{S}^e)$

the latter will exceed the former if

$\hat{S}^e > (1-\theta_y)/(1-\theta_k)\delta_{US} + \delta_{IN} + (\alpha_{US} - \alpha_{IN})$ ... (3)

It is apparent that eqn. (3) holds more likely than eqn. (2) when θ_y is greater than θ_k.

Hence, foreign equities are more prone to exchange rate risk due to exchange rate fluctuations than the domestic equities. For a US investor the risk of investing in Indian equities is compounded if rupee depreciates against dollar whenever Indian stock markets are performing badly.

Illustration 9.2: Let's learn the process of determining dividend in the following five cases for a foreign subsidiary of a U.S. corporation that earns $ 10,000 before local taxes. The U.S. corporate income tax rate is 35%. The foreign tax rate is 30% in cases 1 through 4 and 40% in case 5. The five cases are-

(i) Foreign subsidiary with 100% payout (No withholding tax);
(ii) Foreign subsidiary with 100% payout (10% withholding tax);
(iii) Foreign subsidiary with 50% payout (10% withholding tax);
(iv) Foreign affiliate with 50% payout (10% withholding tax); and
(v) Foreign affiliate with 50% payout (40% foreign corporate tax, 10% withholding tax);

Case 1: Foreign subsidiary with 100% payout (No withholding Tax): Assuming the foreign subsidiary earns $ 10,000 before local taxes, it pays $ 3,000 in foreign taxes (30% foreign tax rate) and distributes all $ 7,000 of remaining net income to its U.S. parent (100% payout rate) and distributes all $ 7,000 of remaining net income to its U.S. parent (100% payout rate). Because there are no withholding taxes, the U.S. parent receives a net remittance of the full $ 7,000.

The U.S. parent corporation takes the full before-tax foreign income of the foreign corporation— apportioned by its proportional ownership in the foreign corporation (in this case 100%)— into its taxable income. This is called grossing-up.

The U.S. parent then calculates a tentative U.S. tax against the grossed-up foreign income. Assuming a 35% U.S. tax rate, the tentative U.S. tax

on a grossed-up income of $ 10,000 is $ 3,500. The U.S. parent is then entitled under U.S. tax law to reduce this U.S. tax liability by a deemed-paid foreign tax credit for taxes already paid on the same income in the foreign country. The deemed-paid tax credit is calculated as follows:

Deemed-paid credit =

$$\frac{\text{Dividends received (including withholding tax)} \times \text{Creditable foreign taxes}}{\text{After tax net profits and earnings of foreign corporation}}$$

Creditable taxes are foreign income taxes that are paid on earnings by a foreign corporation that has paid a dividend to a qualifying U.S. corporation. The deemed-paid credit in Case 1 is calculated as follows:

$$\text{Deemed-paid credit} = \frac{\$7{,}000 \times \$3{,}000}{\$7{,}000} = \$3{,}000$$

The U.S. parent owes an additional $500 in U.S. taxes ($3,500 tentative U.S. tax less the deemed-paid credit of $3,000). The after-tax income earned by the U.S. parent corporation is $6,500, and the overall tax rate on the foreign income is 35% (total taxes of $ 3,500 on total income of $ 10,000). Ote that although the foreign corporate tax rate was lower (30% to the U.S. 35% rate), the U.S. corporation ends up paying the higher effective rate.

Case 2: Foreign subsidiary with 100% payout (10% withholding tax): Assume that the same foreign corporation earns the same income, but now all dividends paid to the U.S. parent corporation are subject to a 10% withholding tax. All other values remain the same as in Case 1. Although the actual net remittance to the U.S. parent is now lower, $6,300 instead of $7,000, the U.S. parent calculates the tentative U.S. tax on a grossed-up dividend of $ 7,000.

The tentative U.S. tax liability is again $3,500. The U.S. corporation can then deduct the amount of the deemed-paid credit ($3,000) and the full amount of withholding tax ($700) from its U.S. tax liability. Because the total foreign tax credits of $3,700 are greater than the tentative U.S. tax of $3500, the U.S. parent owes no additional U.S. taxes. The U.S. parent has, in fact, an excess foreign tax credit of $ 200 ($3,700-$3,500), which it can carry back two years or carry forward five years. the effective foreign tax rate is now 37% as a result of the firm's paying higher taxes abroad than it would have theoretically paid at home, including the withholding tax.

Case 3: Foreign subsidiary with 50% payout (10% withholding tax): In this case it is assumed that all tax rates remain the same, but the foreign corporation chooses to pay out only 50% of net income rather than 100%. As a result, all dividends, withholding taxes, deemed-paid credits, tentative U.S. tax liabilities, foreign tax credits, after-tax income from the foreign subsidiary, and finally total taxes paid are cut in half. The overall effective tax rate is again 37%, higher than what would theoretically have been paid if the income had been earned inside rather than outside the United States.

Case 4: Foreign affiliate with 50% payout (10% withholding tax): Case 4 illustrates to what degree these cash flows change when the U.S. parent corporation owns only 40% of the foreign corporation. As illustrated in Exhibit 17.3, the 40% ownership acts only as a 'Scale factor' in apportioning dividends paid, withholding tax withheld, and tax liabilities and credits resulting. Once again, the U.S. parent corporation has excess foreign tax credits as a result of paying more taxes abroad than it is liable for at home. The overall effective tax rate on the reduced after-tax net income for the foreign affiliate of $ 1,400 is 37%.

Case 5: Foreign affiliate with 50% payout (40% foreign corporate tax, 10% withholding tax): This fifth and final case illustrates the increasing tax burden on the U.S. parent corporation when the corporate income tax in the foreign country is higher than that in the United States. The combined impact of a 40% foreign income tax and a 10% withholding tax, even after calculation of deemed-paid foreign tax credits, results in a rising excess foreign tax credit and a substantially higher effective tax rate of 46%. Clearly, when the implications of Case 5 are combined with the number of countries with corporate tax rates higher than that of the United States, the tax burden borne by U.S. based MNEs is a significant competitive concern.

9.4 TAX ASPECTS OF DIVIDEND DECISION BY MNCS

To understand the impact of taxation on distributed income (dividend) by an MNC, the following aspects should be very much clear:

Tax Philosophies: Countries usually claim the right to tax income either on a global basis or on territorial basis. Global claims assume that countries have the right to tax companies and all their subsidiaries. This practice invites double taxation. Suppose an Indian Company has a subsidiary in France, then the income of the subsidiary will be taxed in France as well as in India.

Unitary taxation is quite prevalent in California: USA in which the state assesses the multinational companies on a proportion of their world wide profits. The tax assessment is based on a formula that required world wide combined reporting (WWCR), which calculates taxes for MNCs on the basis of local sales, payroll and property as proportion of MNCs world wide total income.

Some countries follow the principle of sovereignty which says that countries claim their right to tax income earned within their own country.

Again there are two types of concepts of taxation which are:

(i) Tax Neutrality

(ii) Tax equity

(i) Tax Neutrality: It says that decisions regarding investments are not affected by tax laws i.e. taxes are neutral while taking investment decisions. The justification of tax neutrality is that capital should be allowed to move from one country to another country in order to get higher returns. The neutrality of tax has two dimensions– (i) Domestic neutrality; and (ii) Foreign neutrality.

(a) Domestic neutrality: This mean that citizens investing in domestic market and foreign markets are equally treated. In this case marginal tax burden on the domestic returns is equal to the marginal tax burden on the income earned overseas. This form has two levels of uniformity (a) uniformity in both the applicable tax rate and the determination of taxable income and (b) equalisation of all taxes on profit whether earned domestically or overseas. Generally uniformity is influenced by differing govt. policies and accounting methods. Capital expenditure is granted concessional taxation while other expenditures are not treated in the same manner.

e.g. in the US, the foreign income is taxed at the same rate as the domestic income and in India foreign income even may be provided subsidy at domestic level.

(b) *Foreign Neutrality:* It means that subsidiaries of domestic companies and foreign subsidiaries operating in the domestic economy face same level of taxation.

The subsidiaries of domestic companies face competition from the domestic companies and subsidiaries of non US origins. Hence in case of tax structures changed by one country would automatically lead to changes in other countries' tax structures.

(ii) Tax equity: This principle suggests that all tax payers, irrespective of their source of income, should be taxed according to the same rules.

The taxation of various income sources including dividend is much affected by the following reasons to have different tax burdens:

1. Statutory tax rates may very from country to country.
2. Differences in definition of corporate taxable income.
3. Different interpretation of how to achieve tax neutralitiy.
4. Treatment of tax deferral privilege.
5. Method of granting credit for foreign income taxes paid to host country.
6. Concessions received in bilateral tax treaties.
7. Treatment of inter-company transactions.
8. Differing tax systems.

In India the tax rate applied to a non-resident assessee is fixed at the following rate:

Income accruing to a foreign institutional investor (FII) from securities listed in a recognised stock exchange in India is taxed at 20% of such income. Long term capital gains arising from the transfer of such securities is taxed at 10% of such income. Short term capital gains arising on the transfer of securities is taxed at 30% of such income. For the purpose of this provision "FII" means such investor as the central

Govt. may by notificaion in the official gazette, specify in this behalf (Section 115 AD).

GDRs, ADRs & Dividend: The most attractive source of finance today is GDR (Global depository Receipts) and American Depository Receipts (ADRs) to tap foreign equity market. In case of depository receipts (DRs), usually a large international bank (Depository) holds the shares issued by a company, which receives dividends, reports and so on and issues claims against these shares. The depository receipts are denominated in a convertible currency - usually US dollars. The depository receipts may be listed and treated on a stock exchange or may trade in OTC market. The issuer firms pays dividends in home currency and hence no exchange risk is involved and the same is converted into dollars and distributed to the receipt holders. From the investors' point of view, they achieve portfolio diversification while acquiring an instrument which is denominated in a convertible currency and is traded on developed stock markets. Of course, the investors bear exchange risk and all the other risks borne by an equity holder (dividend uncertainty, capital loss). There are also taxes, such as withholding taxes on dividends and capital gaint taxes. Indian Govt. imposes a 10% withholding tax on dividends and a 65% maximum marginal capital gains tax on short term capital gains. (tax on long term capital gain is only 10% thus encouraging the investor to hold on to the stock).

9.5 SUMMARY

The motive behind investment decision is to get the return. Again the return constitutes two parts– yield (dividend or interest) and the capital appreciation (change in the market value of the firm). Since an MNC operates in different parts of the globe, dividend decision is generally affected by the policies of the country where its subsidiary is situated. Because of differing tax structures in various countries, dividend

remittances are affected. The other factors like exchange rate fluctuations and economic policy also affect the dividend decisions of MNCs.

9.6 KEYWORDS

American Depository Receipts (ADRs) Claims issued against foreign shares and traded in the over-the-counter market. ADRs are used so that the foreign shares can trade their home market but nevertheless be sold in the United States.

Dividend That part of profit after interest and taxes which is distributed among share holders.

Foreign Subsidiary A foreign operation that is incorporated in the foreign country but owned by a parent company.

Indirect Tax A tax which is ultimately paid by somebody other than the person or firm being taxed.

Territorial Taxation A method of declaring tax jurisdiction in which all income earned within a country by any tax-payer, domestic or foreign, is taxed.

Withholding Tax A tax applied to non-residents at the source of their earnings.

9.7 SELF ASSESSMENT QUESTIONS

1. What are the factors determining dividend policy of an MNC?

2. Explain with the help of illustration the impact of exchange rate volatility on the dividend decision of a multinational Company?

3. How international taxation affects the dividend decisions of a multinational firm?

4. What are different theories of dividend decisions?

9.8 REFERENCES/SUGGESTED READINGS

Bischel, Jon E., and Robert Feinscheiber, *Fundamentals of International Taxation*, 2nd ed. New York: Practicing Law Institute, 1985.

Horst, Thomas, "American Taxation of Multinational Firms", *American Economic Review* (July 1977), pp. 376-89.

Isenbergh, Joseph. *International Taxation*: *U.S. Taxation of Foreign Taxpayers and Foreign Income*, Vols. I and II. Boston: Little, Brown, 1990.

Kuntz, Joel D., and Robert J. Peroni. *U.S. International Taxation*, Vols. I and II. Boston: Warren, Gorham and Lamont, 1994.

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TAXATION OF MULTINATIONAL FIRM

STRUCTURE

10.0 OBJECTIVES

After reading this lesson, you should be able to-

- Describe the basic concepts of taxation in MNCs;
- Know principles of taxation in MNCs;
- Bring out reasons for differing tax structure among countries; and
- Know tax implications of MNCs operating in India.

10.1 INTRODUCTION

The objective of wealth maximisation can only be achieved when are functions of finance are effectively performed. Every finance function like

planning of capital structure, dividend policy etc. has to be performed within heterogeneity of environment among which taxes play a crucial role. In case of an MNC which operates in multi country settings, the role of taxation is very important as far as dividend distribution, capital structure, working capital decisions are concerned because of differing tax structures among parent and host countries always exist. Also, due to regulatory and restrictive role of various state governments, the MNCs have to adjust their earnings accordingly.

10.2 BASIC CONCEPTS OF TAXATION IN MNC

Income and capital gains tax: MNCs face a variety of direct and indirect taxes. The direct taxes are income and capital gains tax. Income tax is the tax levied on income either of an individual or of a corporate. Corporate income tax is a source of revenue to the state. Most of the developing' countries have low per-capita income, therefore individual income taxes do not contribute enough funds to- revenues of the state. Higher taxes on individuals are not desirable because of low disposable income, therefore, the governments try to generate larger revenue from the corporate income taxes. In developed countries, in addition to large corporate income, per capita income is also very high, therefore income tax generate large revenues even at the small rate of taxation. In India, at present, the corporate and individual income tax rates are in line with the developed world. The individual income tax do not provide a large revenue in India.

Capital gains and losses occur due to local sale of capital assets especially due to sale of real estate stocks and bonds. If these assets are held for a longer period, these are likely to generate larger income and, therefore, attract preferential tax treatment.

Sales Tax: Sales tax may be levied ad-volrem (on the value) or on value addition (VAT) during a process of production. The sales tax in different

countries, is levied at different stages of sales process. In England, the sales tax is levied when the goods are wholesaled, in US it is applied when it is retailed. In Germany, it is levied at all stages of production cycle. Value added tax is the tax levied on the value added during a process of production. In Europe; most of the countries have started following value added tax system. In India, it is MOD-VAT (modified value added system). This is similar to value added tax system.

Excise and Tariffs: Excise is the tax on the production of finished goods. This tax can be ad. volrem (i.e. value based) or unit tax (unit of production based). Tariffs are levied on imported goods that parallel excise and other indirect taxes paid by domestic producers of similar goods. This tax may be levied to generate revenue or to protect domestic industry against foreign competition. Modest tariff represents revenue collections of the state but exorbitant tariffs indicate protective intentions of the government authorities. Although protective tariffs do not eliminate the import of foreign products completely, but these put the foreign product at a comparative disadvantage. In this case, consumers have to pay more for the imported goods.

Withholding taxes: These taxes are imposed by the host governments on dividend and interest payments to foreign investors and debt holders. These taxes are collected before receipt of income. These taxes are withheld at the source by the paying corporation that is why these taxes are called withholding taxes. Suppose a US investor has invested in Indian debentures. Indian company has to pay Rs. 500,000 as interest. If withholding tax is 15%, the company will withhold a sum of Rs. 75,000 representing withholding tax to be paid to the government. The firm collects the tax on behalf of the government.

10.3 PRINCIPLES OF TAXATION IN MNCs

Taxes are levied and charged based on some principles. These are as follows:

Tax morality

There always exists a conflict between economic profits and corporate ethics (morality). Some companies feel that the corporate ethics is one, and economic profit is another, therefore, they have to make a choice between these two. It is also well known that both the corporate and the individual are not completely honest with the tax authorities. The MNCs have to decide to what an extent the company should be honest in complying with the tax laws. Some companies feel that they must evade taxes to the same extent as their competitors to protect their competitive position. Ethical standards in a nation depend on business practices, cultural history and historical development of the nation. Since these aspects differ from nation to nation, therefore, the ethical codes will differ from country to country. Host countries also have the same problem, therefore tax authorities try to adhere to two principles of international taxation: neutrality and equity.

Many developing countries, offer tax incentives for private foreign investments. These tax incentives abandon the principle of an economically neutral system.

Tax philosophies

Countries usually claim the right to tax income either on a global basis or on territorial basis. Global claims assume that countries have the right to tax companies and all their subsidiaries. The firms may be domiciled, incorporated or otherwise headquartered with in their borders. Under this philosophy, the firms will be facing double taxation. Firstly, the income is taxed at the subsidiary level and there after at the parent level.

As per this philosophy, if an Indian company has a subsidiary in Germany, then the income of the subsidiary will be taxed in Germany and there after in India. Since global perspective of taxation puts the company at competitive disadvantage, therefore most of the governments compensate for the taxes paid elsewhere.

Unitary taxation

Unitary taxation is a special type of taxation designed to tax world wide income of a company and is based on global perspective of taxation. This type of taxation is prevalent in the state of California USA. State of California in US use unitary tax system and assesses multinational companies on a proportion of their world wide profits. The tax assessment is based on a formula that requires world wide combined reporting (WWCR), which calculates taxes for multinational firms on the basis of local sales, pay roll and property as proportion of multinationals world wide total income.

The second perspective is based on the principle of national sovereignty. Under this principle, the countries claim the right to tax income earned within their own territory. The territorial claims are very popular among multinational corporations. Some countries would like to tax total income of their multinational while the others believe that the income generated within the territorial limits be taxed. The countries like Hong Kong, Switzerland and many Latin American companies do not tax the income of their companies earned overseas.

The tax systems are based on two types of concepts: (a) tax neutrality, and (b) tax equity. Tax neutrality means that the decisions regarding investments are not affected by tax laws, i.e. the taxes are neutral in their effect on decision making process. Tax equity means that equal sacrifices are made by the community in bearing the tax burden.

Tax Neutrality

A tax will be neutral if it does not influence any aspect of borrowing and investment decision. The justification of the tax neutrality is the efficient use of capital. The economic welfare of nations would increase if the capital is free to move from one country to another in search of higher rates of return. In this way, the capital is used efficiently. If the tax system distorts the after tax profitability between two investments, then the gross world product would be less, had this distortion not taken place. Total neutrality has two components: (i) domestic neutrality, and (ii) foreign neutrality.

Domestic Neutrality

This means that the citizen investing in the domestic market and foreign markets are treated equally. In this case, the marginal tax burden on the domestic returns is equal to the marginal tax burden on the income earned overseas. This form of neutrality involves uniformity at two levels: (1) uniformity in both the applicable tax rate and the determination of taxable income, and (2) equalisation of all taxes on profit whether earned domestically or overseas.

Lack of uniformity arises because of different rules and regulations governing depreciation, allocation of expenses and determining revenue. In other words, differences in accounting methods and government policies distort uniformity in determining the taxable income. Because of these policies, different level of profitability is possible for same level of cash flows. Capital expenditure is granted concession in taxation while other expenditure are not treated in the same fashion. Thus in some cases, equal tax rates would not result into equal tax burdens.

In the US, the foreign income is taxed at the same rate as the domestic income. In a country like India, where foreign exchange is scarce, foreign

income may even be provided with a subsidy at the domestic level. US is following tax neutrality, while in India this is not so. However, in the US also there are departures from tax neutrality, the most important of which are:

(i) Investment tax credits are not allowed on foreign investments

(ii) Tax credits on foreign investments are limited to the amount that would have been due, had the income be earned in US.

(iii) Special tax rates exist for the sales done through foreign sales corporation (FSC). There are more such distortions which violate domestic neutrality of taxes.

Foreign Neutrality

Foreign tax neutrality means that the subsidiaries of domestic companies and foreign subsidiaries operating in the domestic economy face same level of taxation. The subsidiaries of domestic companies face competition from two types of organisations in the foreign markets: (1) the domestic companies, and (2) subsidiaries of non-US origin. If a country modifies its tax system to benefit its own companies then other countries would be forced to look at their tax system and change according to new competing system. In this, the subsidiary will be taxed only in the country of its operation.

So far as taxation policy is concerned, the major countries like US, Germany, Japan, Sweden and Great Britain follow a mixed policy of domestic and foreign neutrality. France, Canada and Netherlands exempt foreign subsidiary or branch earning.

Tax Equity

The tax equity principle states that all taxpayers in similar situations be subject to the same tax rules. According to this principle, all corporations be taxed on income regardless of the fact where it is earned. This type of

taxation neutralise the tax consideration in a decision on a foreign versus domestic location.

10.4 REASONS FOR DIFFERING TAX STRUCTURE AMONG COUNTRIES

Taxation differs in various countries because of the following reasons:

1. statutory tax rates vary across countries, from high tax countries to tax heaven;
2. differences in the definitions of taxable corporate income;
3. varying interpretation of how to achieve tax neutrality;
4. treatment of tax deferral privilege;
5. method of granting credit for foreign income taxes paid to host country;
6. concession gained in bilateral tax treaties;
7. treatment of inter-company transactions; and
8. tax systems such as single tax, double, and partial double tax system.

10.5 TAX CONSIDERATION IN DIFFERENT ORGANISATION STRUCTURES OF MNCs

Taxes have important bearing on whether to operate overseas through foreign branches of the parent firm or locally incorporated foreign subsidiary. The choice between these two types would depend on legal liability and public image in the host country. The choice may also depend on managerial incentive considerations and local legal and political requirements.

Suppose in a particular country, the company expects loss in the operation of a project in the starting years for some time in the future, in this case the operation should start with installing a subsidiary, because when the balance sheet of the company is consolidated, the losses might

be adjusted in the profits of the parent company and the company has less tax liability. However, in many countries the consolidation of balance sheet is allowed for reporting purpose and not for tax purpose.

Tax consideration is the net tax burden after paying withholding taxes on dividend. MNC must weigh the benefit of tax deferrals of home country taxes on foreign sources of income from an incorporated foreign unit versus the total tax burden of paying foreign corporate income taxes and withholding taxes, once the income is distributed to the parent corporation. It must be borne in mind that its income will be consolidated with the rest of home country income and taxed at home country tax rate less the foreign credit if any.

Another tax consideration is important for firms engaged in natural resource exploration and development. Some countries allow exploration costs and possibly a part of development costs to be written off as a current expense rather than requiring them to be capitalised and amortised over the succeeding years. Therefore with this view in mind oil and mining firms choose to operate as a branch office rather than a subsidiary.

Many countries have special provisions to attract foreign direct investment in this way distortions would arise in the long run.

Some special forms of organisations are being encouraged in certain countries. 'These are being normally motivated by a country's desire to increase its exports or to promote development of less developed countries.

10.6 TAX TREATIES AMONG COUNTRIES

Bilateral tax treaties are usually designed to avoid double taxation of income by two taxing authorities. Some countries have provisions of tax credits. Foreign tax credits help to some extent to restrict double

taxation. The treaties go further in that they allocate certain types of income to specific countries and also reduce or eliminate withholding taxes. These tax treaties should be considered when planning foreign operations because under some circumstances, these can provide for full exemption from tax in the country in which a minor activity is carried on. Tax treaties are designed to serve the following four objectives:

1. The treaties prevent double taxation on the same income
2. Treaties also prevent tax discrimination by local tax authorities against foreign nationals of the other treaty country.
3. Treaties also increase predictability for the nationals of the treaty nations by specifying taxable obligations. Predictability also tend to reduce opportunities for tax evasion or tax frauds.
4. Treaties tend to specify the type of tax subsidies that will be mutually acceptable to both treaty nations.

Over last seventy years, international organisations have standardised the treaties. The League of Nations drafted the first model treaty in 1929. This model was followed by the so called the model conventions of Mexico (1943) and London (1946). In 1963, DECD (Organisation for Economic Cooperation and Development) developed the recent model called the Draft Double Taxation Convention on Income and Capital. This model was revised in 1974. DECO is an autonomous organisation consisting of government representatives. It consists of 24 member countries, most of which are industrial. The purpose of this organisation is to work towards growth and development of the member states. The 1963 draft has become an essential document in guiding tax treaty negotiators and tax advisors.

Most of the treaties are between industrial countries because these countries are both capital exporting and importing. These countries have common interests in such areas as reduction of withholding taxes on corporate foreign income. Very few treaties are between developed and

developing countries. To tackle this problem, in 1967, United Nations established a group of tax experts on tax treaties to overcome this problem. In 1974, the group issued guidelines on Tax Treaties between developed and developing countries.

The provision of most tax treaties override the provisions of national income tax laws.

10.7 TAX HEAVENS AND CLASSIFICATION OF INCOME FOR TAX PURPOSE

MNCs have foreign subsidiary operating different tax environments. Some countries are called tax heavens. In these countries, MNCs install subsidiaries that act as a corporate body where funds are repatriated in various forms or reinvestment is done through these affiliates. Tax heavens are a creation of tax deferral features on earned foreign income allowed by some of the parent countries to their subsidiary. These are also called international financial centres (IFC). A country qualifies as a tax heaven if it possesses the following characteristics:

Low Taxes

The location has low taxes on foreign investment or income earned by resident corporation.

Convertibility of Currency

It must have a stable convertible currency to permit easy conversion of funds.

Infrastructure and Support System

Location must have infrastructural facilities to support financial services.

Low political risk

The country must have low political risk which can be ensured by a stable government that encourages establishment of foreign owned financial and service facilities.

A typical tax heaven affiliate owns equity of its related foreign subsidiaries, while the 100% equity of tax-heaven-subsidiary is owned by the parent. All transfer of funds might go through this affiliate, including dividends and equity financing. Thus the parent country tax on foreign income, which might normally be paid when the dividend is declared by a foreign affiliate, could continue to be deferred until the tax heaven affiliate itself pays a dividend to the parent. This event can be postponed definitely if foreign operations continue to grow and require new internal financing from the tax heaven subsidiary. Thus multinational corporations are able to operate a corporate pool of funds for foreign operations without having to repatriate foreign earnings to the parent and in this way tax is saved.

Classification of income for tax purposes

Income can be classified for taxation purposes in two ways: (i) Classification by income type and country of origin, and (ii) classification by earned versus distributed income.

(i) Classification by income type and country of origin

Any home country could decide to tax separately income from each separate foreign country by each foreign country by each separate type of income (dividend, interest, royalties, etc.). Alternatively, all types of income for each foreign country could be pooled and a tax levied only on the sum of foreign income from each country. A third .alternative would be to tax by types of income, with the parent allowed to pool income from! many countries as long as it is of the same type. The fourth kind of

classification is that all foreign income from all countries and by all types could be put into one grand international pool and taxed.

(ii) Classification by earned versus distributed Income

This classification of income for taxation purposes emphasises on the timing of earning or timing of repatriation. Every country can levy tax on foreign income at the time of repatriation of income to the parent or at the time of accrual of the income in the foreign country. In US, with some exception, the repatriated income is taxed at the time of repatriation. The income of un-incorporated branches of companies is taxed at the time of earning of income abroad.

10.8 TAX IMPLICATIONS OF MNCs OPERATING IN INDIA

Foreign non-resident business entities may have business activities in India in a variety of ways. In its simplest form this can take the form of individual transactions in the nature of export or import of goods, lending or borrowing of money, sale of technical knowhow to an Indian enterprise, a foreign air-liner touching an Indian airport and booking cargo or passengers, and so on. On the other hand, the activities may vary in intensity ranging from a simple agency office to that of an independent subsidiary company. Various tax issues arise on account of such activities. The first is the determination of income, if any, earned by the foreign entity from those transactions and operations. This will call for a definition of income that is considered to have been earned in India and a methodology for quantification of the same. Foreign enterprises having business transactions in India may not be accessible to Indian tax authorities. This raises the next issue of the mechanism to collect taxes from foreign enterprises. The government wants to encourage foreign enterprises to engage in certain types of business activities in India, which in its opinion is desirable for achieving a balanced economic growth.

Tax Rates

Various types of incomes accruing or arising in India in respect of various categories of non-resident assessees are taxed at different rates as mentioned below:

1. Income by way of interest on money borrowed or debt incurred in foreign currency and income from units of approved mutual funds under Section 10 (23 D) purchased in foreign currency of any foreign company is taxed at 20% [Section 115 A(1)].
2. Royalty and fees for technical services received by a foreign company against agreement which is approved by government or is relating to a matter included in the industrial policy for the time being in force is taxed at 20%. If the royalty is in respect of copyright in any book to an Indian concern or in respect of any computer software to a person resident in India, then the requirement to have the agreement approved by government will not apply [Section 115 A (1)].
3. Income received in respect of Unit Trusts of India or any other approved mutual fund purchased in foreign currency as well as capital gains arising on the sale of such unit accruing to a overseas financial organisation is taxed at 10% of such income. For the purpose of this provision an "overseas financial organisation" means any fund, institution, association or body, whether incorporated or not, established under the laws of a country outside India, which has entered into an arrangement for investment in India with any public sector bank or public financial institution or a mutual fund specified under clause (23 D) of Section 10 and such arrangement is approved by the Central Government, for this purpose [Section 115 AB].
4. Income by way of interest on bonds of an Indian company, issued in accordance with such scheme as the Central Government may, by notification in the Official Gazette, specify in this behalf, and

purchased in foreign currency as well as long-term capital gains arising from the transfer of such bonds accruing to any non-resident assessee is taxed at the rate of 10% of such income [Section 115 AC].

5. Income accruing to a foreign institutional investor from securities listed in a recognised stock exchange in India is taxed at 20% of such income. Long-term capital gains arising from the transfer of such securities is taxed at 10% of such income. Short-term capital gains arising on the transfer of such securities is taxed at 30% of such income. For the purpose of this provision "foreign institutional investor" means such investor as the Central Government may, by notification in the Official Gazette, specify in this behalf. (Section 115 AD].

Representative Assessees [Sections 159 to 167]

For the purpose of effectuating the provisions of the Income Tax Act in respect of a non-resident assessee, Income Tax Act treats the agent of such assessee as a representative assessee. For this purpose an agent in relation to a non-resident includes any person in India

1. who is employed by, or on behalf of, the non-resident; or
2. who has any business connection with the non-resident; or
3. from or through whom, the non-resident is in receipt of any income, whether directly or indirectly or
4. who is a trustee of the non-resident and also includes any other person who, whether a resident or non-resident, has acquired by means of a transfer, a capital asset in India.

No person shall be treated as the agent of a non-resident unless he had an opportunity of being heard by the Assessing Officer as to his liability to be treated as such.

Every representative assessee, as regards to income in respect of which he is a representative assessee, shall be subject to the same duties, responsibilities, and liabilities as if the income were income received by, or accruing to, or in favour of him beneficially, and shall be liable to assessment in his own name in respect of that income; but any such assessment shall be deemed to be made upon him in his representative capacity only, and the tax shall be levied upon and recovered from him in like manner and to the same extent as it would be leviable upon and recoverable from the person represented by him. Such a representative assessee who pays any sum under this provision is entitled to recover the sum so paid from the person on whose behalf it is paid.

Tax Incentives

The following amounts shall not be treated as a part of the taxable income of a non-resident assessee:

1. Income by way of interest on such securities or bonds including premium on redemption of such bonds as the Central Government may specify in the official gazette. [Section 10(4)]
2. Where in the case of a foreign company deriving income by way of royalty or fees for technical services received from Government or an Indian concern in pursuance of an agreement made by the foreign company with Government or the Indian concern after the 31st day of March, 1976 and
   (i) where the agreement relates to a matter included in the industrial policy, for the time being in force', of the Government of India, and such agreement is in accordance with that policy; and
   (ii) in any other case, the agreement is approved by the Central Government, the tax on such in come, is payable, under the terms of the agreement, by the Government or the Indian

concern to the Central Government, the tax so paid. [Section 10(6A)].

Similar exemption is available in respect of an enterprise deriving, income which is either relatable to an agreement entered into with the government of a foreign state or an international organisation or arises from the operation of aircraft. [Section 10 (6B & 6BB)]

3. Any income arising to a foreign company, as the Central Government may, by notification in the Official Gazette, specify in this behalf by way of fees for technical services received in pursuance of an agreement entered into with that Government for providing services in or outside India in projects connected with security of India. [Section 10(6C)]

4. Interest payable: [Section 10(6)]

   (i) to any bank incorporated in a country outside India and authorised to perform central banking functions in that country on any deposits made by it, with the approval of the Reserve Bank of India, with any scheduled bank;

   (ii) by Government or a local authority on money borrowed by it from (or debts owed by it to) sources outside India;

   (iii) by an industrial undertaking in India on money borrowed by it under a loan agreement entered into with any such financial institution in a foreign country as may be approved in this behalf by the Central Government by general or special order.

   (iv) by an industrial undertaking in India on any money borrowed or debt incurred by it in a foreign country in respect of the purchase outside India of raw materials (or components) or capital plant and machinery, to the extent to which such interest does not exceed the amount of interest calculated at the rate approved by the Central Government in

this behalf, having regard to the terms of the loan or debt and its repayment;

(v) by public financial institutions like Industrial Financial Corporation of India, Industrial Development Bank of India and Export Import Bank of India as well as banking company established under Banking Regulation Act, 1949 on any money borrowed by it from sources outside India to the extent such interest does not exceed the amount of interest calculated at the rate approved by the Central Government in this behalf, having regard to the terms of loan and its repayment.

(vi) by an industrial undertaking in India on any moneys borrowed by it in foreign currency from sources outside India under a loan agreement approved by the Central Government having regard to the need for industrial development in India, to the extent to which such interest does not exceed the amount of interest calculated at the rate approved by the Central Government in this behalf, having regard to the terms of the loan and its repayment; and

(vii) by a scheduled bank to a non-resident or to a person who is not ordinarily resident, on deposits in foreign currency where the acceptance of such deposits by the bank is approved by the Reserve Bank of India.

Advance Ruling [Sections 245 N to 245 V]

One major disadvantage faced by the tax payers with the tax administration is the uncertainty about the way how the assessing authorities will interpret any tax provision while computing the taxable income or tax payable. There is no mechanism provided in the Act to obtain in advance the opinion of the assessing authorities on the treatment of any receipt, expenditure or loss. In a liberalised economy

wherein participation from foreign enterprises is being sought by the government, the above uncertainty about interpretation proved to be a bottleneck. In order to obviate this problem, the Act has been amended to provide for the facility of advance ruling exclusively for non-residents.

Under this scheme, any non-resident can make an application in the prescribed form to the Authority for Advance Ruling, a committee located at Delhi comprising of a Chairman, who is a retired Judge of the Supreme Court, an officer of Indian Revenue Service who is qualified to be a member of Central Board of Direct Taxes and an Officer of the Indian Legal Service who is qualified to be an Additional Secretary to Government of India.

The applicant has to state the question on which the advance ruling is sought. The authority can either allow or reject the application after examining the application and other relevant records. The authority shall give an opportunity to the applicant to be heard before rejecting the application and should give the reasons for rejection in the order. The authority shall not allow a question, which

1. is pending for disposal with any authority in the applicant's case; or
2. involve determination of fair market value of any property; or
3. relates to a transaction, which is designed on the face of it for the avoidance of income tax. The ruling given by the authority will be binding
4. on the applicant who sought it;
5. in respect of the transaction in relation to which the ruling has been sought; and
6. on the commissioner and his subordinates in respect of the applicant and the said transaction.

Double taxation reliefs

One of the disadvantages associated with doing business outside the home country is the possibility of double taxation. Business transactions may be subject to tax both in the country of their origin and of their completion. We had seen in the preceding section that tax charge is determined by taking the residential status in conjunction with the situs of accrual, arisal, or receipt of the item of income. Accordingly an item of income may be taxed in one country based on residential status and in another country on account of the fact that the income was earned in that country. For example, an Indian company having a foreign branch in France will pay income tax in respect of the income of the foreign branch in India based on its 'status as "Resident" and in France because the income was earned there. Since such a state of affairs will impede international business, each country tries to avoid such double taxation by either entering into an agreement with the other country to provide relief or by incorporating provisions in their own tax statutes for avoiding such double taxation. The first scheme is called "Bilateral Relief' and the second "Unilateral Relief'. The features of both kinds of reliefs are discussed hereunder.

Bilateral Relief

Relief against the burden of double taxation can be worked out on the basis of mutual agreement between the two Sovereign States concerned. Such agreements may be of two kinds. In one kind of agreement, the two countries concerned agree that certain incomes which are likely to be taxed in both countries shall be taxed only in one of them or that each of the two countries should tax only a specified portion of the income. Such arrangements will avoid double taxation of the same income. In the other kind of agreement, the income is subjected to tax in both the countries but the assessee is given a deduction from the tax payable by him in the

other country, usually the lower of the two taxes paid. Double taxation relief treaties entered into between two countries can be comprehensive covering a host of transactions and activities or restricted to air, shipping, or both kinds of trade. India has entered into treaties of both kinds with several countries. Also there are many countries with which no double taxation relief agreements exist.

Section 90 of the Income Tax Act empowers the Central Government to enter into an agreement with the Government of any country outside India for granting relief when income tax is paid on the same income in both countries and for avoidance of double taxation of income. The section also empowers the Central Government to enter into agreements for enabling the tax authorities to exchange information for the prevention of evasion or avoidance of taxes on income or for investigation of cases involving tax evasion or avoidance or for recovery of taxes in foreign countries on a reciprocal basis. This section provides that between the clauses of the double taxation relief agreement and the general provisions of the Income Tax Act, the provisions of the Act shall apply only to the extent they are beneficial to the assessee. Where a double taxation relief agreement provides for a particular mode of computation of income, the same is to be followed irrespective of the provisions in the Income Tax Act. Where there is no specific provision in the agreement, it is the basic law, that is, the Income Tax Act that will govern the taxation of income.

The treaties entered into with certain countries contain a provision that while giving credit for the tax liability in India on the doubly taxed income, 'Indian tax payable' shall be deemed to include any amount spared under the provisions of the Indian Income Tax Act. The effect of this provision is that tax exempted on various types of interest income as discussed under the preceding section would be deemed to have been already paid and given credit in the home state. This will result in the

lender saving taxes in his home country. Since this saving is relatable to the transaction with the business enterprise in India, the Indian enterprise can seek a reduction in the rate of interest charged on the loan. Suppose an interest income of Rs 100 is earned by a British bank on the money lent to an Indian company, the British rate of tax on this income is 35% and the Indian withholding tax is 15%, and this income is exempted from tax under Section 10(6)(iv), the British bank will save Rs. 15 on this transaction by way of tax in Britain as indicated below:

Gross Interest Income	Rs 100.00
Less: Indian withholding tax	—
	Rs. 100.00
Less: British tax @ 35% on gross interest income	Rs. 35.00
Income after tax	Rs. 65.00
Add: Credit for Indian spared tax	Rs. 15.00
Net income after tax	Rs. 80.00

Had the interest not been exempted in India the British bank would have paid a withholding tax in India but would have claimed an abatement from the British tax payable of Rs 35 towards this tax and paid Rs 20 in Britain. Thus the total tax liability would have been Rs 35. Since the interest on this loan is a tax spared, the British bank has saved Rs 15 or its post tax income has gone up by over 20%. The Indian borrower will be justified in striking a bargain with the British bank for reduction in the rate of interest levied.

Unilateral Relief

Section 91 of the Income Tax Act provides for unilateral relief in cases where no agreement exists. Under this section, if any person who is resident in India in any previous year proves that, in respect of his income which accrued or arose during that previous year outside India (and which is not deemed to accrue or arise in India), he has paid in any

country with which there is no agreement under Section 90 for the relief or avoidance of double taxation. income tax, by deduction or otherwise, under the law in force in that country, he shall be entitled to the deduction from the Indian income tax payable by him of a sum calculated on such doubly taxed income at the Indian rate of tax or the rate of tax of the said country, whichever is the lower, or at the Indian rate of tax if both the rates are equal. For the purposes of this provision

1. The expression “Indian income tax” means income tax charged in accordance with the provisions of the Act;
2. The expression “Indian rate of tax” means the rate determined by dividing the amount of Indian income tax after deduction of any relief due under the provisions of the Act but before deduction of any relief due under this provision, by the total inc’)me;
3. The expression “rate of tax of the said country” means income tax and super-tax actually paid in the said country in accordance with the corresponding laws in force in the said country after deduction of all relief due, but before deduction of any relief due in the said country in respect of double taxation, divided by the whole amount of the income as assessed in the said country;
4. The expression “income-tax” in relation to any country includes any excess profits tax or business profits tax charged on the profits by the Government of any part of that country or a local authority in that country.

10.9 SUMMARY

There are two types of taxes faced by MNC, direct and indirect. Due to differing tax structures, MNCs face tax burdens in form of income, capital gains, sales, excise and tariffs and withholding taxes. The imposition of taxation policy depends upon some principles of taxation among which tax morality is related to corporate ethics. Taxes are also imposed based on philosophies either on global or territorial basis. In unitary taxation,

the taxation is done on the basis of proportions of world wide profits. To facilitate the process of taxation, some treaties among different nations have been operationalised. The nature, types and assessment of income by MNCs are mentioned in the Income Tax Law, which is time and again altered according to environmental changes.

10.10 KEYWORDS

Direct Tax A tax paid directly by the tax-payer on whom tax is levied.

Income Tax A direct tax levied on the active income of an individual or corporation.

Indirect Tax A tax levied on a tax-payer's income which was not directly generated by the tax-payer and serves as passive income for the tax-payer.

Tax Nutrality A principle in taxation, holding that taxation should not have a negative effect on the decision-making process of tax-payers.

Tobin Tax A tax on the international flow of hot money proposed by Prof. Tobin for the purpose of discouraging cross-border financial speculation.

Transfer Price The price assigned, for book keeping purposes, to the receiving division within a business for the cost of transferring goods and services from another division.

Value Added Tax (VAT) An indirect national tax which is levied on the value added in the production of a good or service as it moves through the various stages of production.

Withholding Tax An indirect tax levied on passive income earned by an individual or corporation of one country within the tax jurisdiction of another country.

10.11 SELF ASSESSMENT QUESTIONS

1. Discuss principles governing taxation policy of MNCs. What are the reasons for varying tax structure among countries?

2. Describe tax treaties, tax heavens and classification of income.

3. Examine the rules governing taxes on MNCs operating in India w.r.t. Income Tax Act.

10.12 REFERENCES/SUGGESTED READINGS

Apte, G Prakash, "International Financial Management" Tata McGraw Hill Publishing Company Ltd,. New Delhi, 1995.

Bodie, Zvi, Alex Kane, and Alan J. Marcus, *Investments*, 4th ed. New York, NY: Irwin/McGraw-Hill, 1999.

Bordo, Michael, D., "The Gold Standard, Bretton Woods and Other Monetary Regimes: A Historical Appraisal", *Review*, Federal Reserve Bank of St. Louis, March/April 1993, pp. 123-199.

"Capital Flows into Emerging Markets". Cover story, Business World, 31 Oct. 2005. (pp. 44-46).

Bischel, Jon E., and Robert Feinscheiber, *Fundamentals of International Taxation*, 2nd ed. New York: Practicing Law Institute, 1985.

Horst, Thomas, "American Taxation of Multinational Firms", *American Economic Review* (July 1977), pp. 376-89.

Isenbergh, Joseph. *International Taxation*: *U.S. Taxation of Foreign Taxpayers and Foreign Income*, Vols. I and II. Boston: Little, Brown, 1990.

Kuntz, Joel D., and Robert J. Peroni. *U.S. International Taxation*, Vols. I and II. Boston: Warren, Gorham and Lamont, 1994.

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Lesson: 11	

LONG-TERM SOURCES OF FUNDS FOR A MULTINATIONAL COMPANY

STRUCTURE

11.0 OBJECTIVES

After going through this chapter, you should be able to-

- Know the different sources of long term funds available for a multinational company; and
- Describe the advantages and disadvantages of the sources of funds.

11.1 INTRODUCTION

The essence of financial management is to raise and utilise the funds effectively. This also holds good for the procurement of funds in the international capital markets, for a multi-national firm. When a multinational firm finalises its foreign investment project, it needs to select a particular source of fund, or a mix of sources of funds to finance the project. A multinational firm 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 also gets funds from the international financial market but it is not as easy as in case of a multinational firm. The multinational firm can use the parent company's funds for its foreign investment project and 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 that suits its corporate objectives. It is very important to decide the combination of long-term sources of funds because it affects the long-term profitability of the firm.

For raising long term funds, there are a number of agencies and instruments through which funds move to the resource-needy institutions or firms. The resource providing agencies may be official or non-official. The official sources comprises of international development banks, regional development banks, bilateral agencies and non-official sources comprises of borrowing and lending market involving international banks, debt securities and equity securities, etc.

11.2 OFFICIAL SOURCES OF LONG TERM FUNDS

11.2.1 Multilateral agencies

The large scale economic development programmes, growth of international trade, and the fast growing activities of multinational

corporations has resulted the change in demand and supply of international funds. But till mid-1940s, there was no multilateral agency to provide international funds and only in 1945 was the International Bank for Reconstruction and Development (IBRI) established that provide international funds and only in 1945 was the International Bank for Reconstruction and Development (IBRI) established that provided loans for reconstruction of the war-ravaged economies of Western Europe and then from 1948 began providing development loans. The IBRD's function was limited to lending after the guarantee by the borrowing government and provision of equity finance lay beyond its scope. To overcome these problems, the International Finance Corporation (IFC) was established in 1956 which provides loan even without government guarantee and provides equity finance as well. But the poor countries of the developing world were not in a position to utilise the costly resources of the IBRD because funds carried market rate of interest and poor countries were not in capacity to pay high rate of interest. For the benefit of poor countries, another sister institution was created in 1960 name as International Development Association (IDA). In 1988, the Multilateral Investment Guarantee Agency (MIGA) was established to cover the non-commercial risks of the foreign investors. These four institutions namely, IBRD, IDA, IFC and MIGA- together are now known as the World Bank Group.

But the lending norms of World Bank Group did not equally suit different member countries because the economic and political conditions as well as the requirements of the different regions of the globe were different. Thus, to cater the requirements of different regions, it was decided to set up regional development banks on the pattern of the international development banks. In this series, The Asian Development Bank began operation from December, 1966.

11.2.2 Bilateral Agencies

During the first half of the twentieth century, funds flowed from the empire to its colonies for meeting a part of the budgetary deficit of the colonial government but neither it was normal practice nor external assistance that mean in the present day context. The US president Truman in January 1951 announced bilateral economic assistance first time. The motivation behind the announcement was primarily political and economic because the cold war between the USA and then USSR was at its peak those days and government of USA tried to be the friend of developing countries to bring them into its own camp in order to make itself more powerful politically. This bilateral may help the US economy to come closer to the developing economies and also helpful to get the desired raw material and foodstuffs therefrom.

In the second half of the 1950s, the USSR bloc too announced its external assistance programme in order to counter the US Move. In the late 1950s, many other governments of the Organisation of Economic Co-operation and Development (OECD) announced external assistance programmes and bilateral lending boom came into the 1960s.

11.3 NON-OFFICIAL SOURCES OF LONG TERM FUNDS

11.3.1 International banks

International banks occupy the top position among the non-official sources of funds. In the first half of the twentieth century and till the late 1950s, the domestic banks were also performing the functions of international banks. But in early 1960s, banks with international character emerged on the global financial scene and were known as Euro Banks. However, the Euro banks emerged on a footing different from the international banks. The Euro banks deal with both the residents and non-residents, but they dealt essentially in any currency other than the

currency of the host country. The other difference between the international bank and Euro Bank is that the former is subjected to rules and regulations of the host country, but the Euro banks are free from those rules and regulations because Euro banks do not touch the domestic economy and are concerned only the placement of funds from one foreign market to another foreign market and not have any direct impact the balance of payments of the host country.

The emergence of Euro banking got support from some capital control measures by the US government in the wake of the balance of payments crisis in the 1960s. In 1965, the introduction of Voluntary Foreign Credit Restraint Programme Limited the ability of US-based banks to lend directly to the non-residents but this provision did not apply to foreign branches of the US banks. As a result, the number of US banks having foreign branches rose from 11 in 1964 to 125 in 1973, the number of foreign branches of those banks moved up from 181 to 699 during this period and the assets of these branches went up from US $ 7.0 billion to US $ 118 billion during the same period. When domestic credit was restricted, it leads to the growth of the Euro banks because companies were able to borrow from Euro banks at lower rate of interest. The number of foreign branches of UK-based banks alone rose from 1105 to 1973 during the same period.

In the 1970s, a new type of international banks emerged that was to be known as off-shore banking centres (OBCs) having distinctive feature that they dealt with non-residents only and did not deal in the currency of the host country. The foreign currency liabilities of OBCs in European reporting countries rose from US $ 79.3 billion in 1970 to US $ 801 billion in 1979 and the total liabilities of US banks branches in the Bahaman and Cayman islands alone grew from US $ 4.8 billion to US $ 121.8 billion during the same period.

Features of multinational banking: The forms of banking organization are described below.

Correspondent banking: An informal linkage between banks in different countries is set up when banks maintain correspondent accounts with each other. Large banks have correspondent relationships with banks in almost every country in which they do not have an office of their own. The purpose of maintaining foreign correspondents is to facilitate international payments and collections for customers. The term 'correspondent' comes from the mail or cable communications that the banks used to use for settling customer accounts. Today, these communications have largely been replaced by SWIFT messages, and the settling between banks occurs via CHIPS. For example, if Aviva wants to pay a Canadian supplier, it will ask its US bank, which will communicate with its Canadian correspondent bank via SWIFT. The Canadian bank credits the account of the Canadian firm, while Aviva's bank debits Aviva's account. The US and Canadian banks then settle through CHIPS.

Correspondent banking allows banks to help their customers who are doing business abroad, without having to maintain any personnel or offices overseas. This relationship is primarily for settling customer payments, but it can extend to providing limited credit for each other's customers and to setting up contacts between local business people and the clients of the correspondent banks.

Resident representatives: In order to provide their customers with help from their own personnel on the spot in foreign countries, banks open overseas business offices. These are not banking offices in the sense of accepting local deposits or providing loans. The primary purpose of these offices is to provide information about local business practices and conditions, including the creditworthiness of potential customers and the bank's clients. The resident representatives will keep in contact with local

correspondent banks and provide help when needed. Representative offices are generally small; they have the appearance of an ordinary commercial office rather than a bank.

Bank agencies: An agency is like a full-fledged bank in every respect except that it does not handle ordinary retail deposits. The agencies deal in the local money markets and in the foreign exchange markets, arrange loans, clear bank drafts and checks, and channel foreign funds into financial markets. Agencies are common in New York; for example, Canadian and European banks keep busy offices there, with perhaps dozens of personnel dealing in the short-term credit markets and in foreign exchange. Agencies also often arrange long-term loans for customers and act on behalf of the home office to keep it directly involved in the important foreign financial markets.

Foreign branches: Foreign branches are operating banks like local banks, except that the directors and owners tend to reside elsewhere. Generally, foreign branches are subject to both local banking rules and the rules at home, but because they can benefit from loop-holes, the extra tier of regulations is not necessarily onerous. The books of a foreign branch are incorporated with those of the parent bank, although the foreign branch will also maintain separate books for revealing separate performance, for tax purposes, and so on. The existence of foreign branches can mean very rapid check clearing for customers in different countries, because the debit and credit operations are internal and can be initiated by fax or electronic mail. This can offer a great advantage over the lengthy clearing that can occur via correspondents. The foreign branch also offers bank customers in small countries all the service and safety advantages of a large bank, which the local market might not be able to support.

Foreign subsidiaries and affiliates: A foreign branch is part of a parent organization that is incorporated elsewhere. A foreign subsidiary is a locally incorporated bank that happens to be owned either completely or partially by a foreign parent. Foreign subsidiaries do all types of banking, and it may be very difficult to distinguish them from an ordinary locally owned bank.

Foreign subsidiaries are controlled by foreign owners, even if the foreign ownership is partial. Foreign affiliates are similar to subsidiaries in being locally incorporated and so on, but they are joint ventures, and no individual foreign owner has control (even though a group of foreign owners might have control).

Consortium banks: Consortium banks are joint ventures of the larger commercial banks. They can involve a half dozen or more partners from numerous countries. They are primarily concerned with investment, and they arrange large loans and underwrite stocks and bonds. Consortium banks are not concerned with taking deposits, and they deal only with large corporations or perhaps governments. They will take equity positions– part ownership of an investment– as well as make loans, and they are frequently busy arranging takeover and mergers.

11.3.2 International bonds

International bonds are debt securities. These are issued by international agencies, governments and companies for borrowing foreign currency for a specified period of time. The issuer pays interest to the creditor and makes repayment of capital. These are different types of bonds, some of which mentioned below:

Foreign bonds: These are debts instruments denominated in a currency which is foreign to the borrower and is sold in a country of that currency.

For example if a British firm placing $ denominated bonds in USA is said to be selling foreign bonds.

Fully hedged bonds: In foreign bonds, the risk of currency fluctuations exists. Fully hedged bonds eliminate that risk by selling in forward markets the entire stream of interest and principal payments.

Floating rate notes: On these, interest rates are adjusted to reflect the prevailing exchanges rates. They provide cheaper money than foreign loans.

Foreign currency futures: Foreign currency futures are obligations to buy or to sell a specified currency in the present for settlement at a future date.

Foreign currency convertible bond (FCCB): Foreign currency convertible bond is a bond issued in accordance with the guidelines, dated 12th November, 1993 as amended from time to time and subscribed for by a non-resident in foreign currency and convertible into ordinary/equity shares by the issuer company in any manner whether in whole or in part or on the basis of any security related warrants attached to debt instruments.

11.4 EURO-ISSUE

A Euro-Issue is an issue where the securities are listed in a currency different from the currency of the country of issue and securities are sold internationally to corporate and private investors in different countries. A Euro-issue is different from a foreign issue where the issuer is not incorporated in the country in which the securities are being issued, but the securities are denominated in the country of issue and are aimed at domestic investors in the country where the issue is made. Euro securities are transferable securities which are to be underwritten and distributed by a syndicate. The term Euro markets of which international

capital market and money market are a part, is a mis-nomer because though the concept of Euro Market was first developed in Europe (more particularly, London) the size and geographical diversity of the Euro Market draws participants, be it an issuer, under writer, intermediary or investor, from all over the world, thus making it characteristically international.

The major benefit that a Euro-Issue provides to the issuer company is the ability to raise funds at a lower cost. Second, a Euro-issue can be priced at par or even at a slight premium depending on the market conditions. Third an issuer company can enlarge the market for its shares through greater exposure and at the same time, enhance its image in the international markets. Fourth international listing can provide increased liquidity for the securities, thus making them more attractive to buyers. There are two instruments which are floated in the Euro Capital Markets are Bonds and Equities.

11.4.1 Euro Bonds

Euro bonds are debt instruments denominated in a currency issued outside the country of that currency e.g. a Yen non-floated in Germany, a won bond issued in France. They are normally issued as unsecured obligations of the borrowers. The instrument floated by the Indian companies is Euro convertible bonds (ECBs). Euro convertible Bond is an equity-linked debt security which can be converted into shares or into Depository Receipts. It is a foreign currency debt instrument that an Indian Company Issues. The investor in the ECB has the option to convert it into equity usually in accordance with a predetermined formula and sometimes also at a predetermined exchange rate. This offers capital appreciation on sale. Investor has also option to retain it as a bond. Investors have an option to convert the bond if the market price of the stock goes up beyond a percentage of the share price at the time of issue

at a predetermined premium. Some companies retain the right to convert compulsorily. The maturity of bond can range up to 10-12 years and if the option to convert equity is not exercised, the bond is redeemed. Mostly Euro Convertible Bond issues are listed at London or Luxembourg stock exchanges.

Certain variations in Euro Convertible Bonds have evolved in the past few years. These are:

1. **Straight debt bonds:** These bonds resemble to debentures and have following special features that distinguish with other types of Euro-bonds.
   (a) Fixed interest bearing securities;
   (b) Redeemable at face value (or par) by borrower on maturity with provision for early redemption on premium over the issue price by borrower.
   (c) These bonds are unsecured.
   (d) Income on the bonds is exempt for withholding for tax at source but this does not exempt investors from reporting their income to their national authorities.
   (e) It makes possible tax evasion by illegal means and tax avoidance by legal means which is wide spread phenomenon.
   (f) Tax evasion become easier due to bearer nature of these bands.
   (g) Fluctuations in the secondary market prices of bonds produce capital gains and capital loses.
   (h) Yield is dependent upon short-term interest rates and that is the reason that London Inter Bank Offered Rate is the most convenient yardstick to measure Euro-bond yield.

2. **Convertible bonds:** These bonds are like the convertible debentures in the domestic market. This conversion can be done at

the stipulated period. The conversion price is fixed at a premium above the market price of common stock on the date of the bond issue. On conversion, the borrowing company issue new stock for giving effect to conversion and would prefer to have capital gain rather than receiving fixed rate interest income.

3. **Multiple tranche bond:** The issuer initially issued only one-half or one-third bonds depending on the market conditions. Subsequent issues are at the option of the issuer. There is no obligation upon the issuer to issue any further bonds after initial issue particularly when borrower is not prepared to accept a lower rate of interest.

4. **Currency option bonds:** These bonds are issued in one currency but with the option for the investor to take payment of interest and principal in a second currency. It has been noted that in past such bonds were issued in Sterling and another currency usually the Deutsche mark or US dollar. UK Government prohibited outflow of Sterling under Exchange Central Act, 1947 and subsequently under Control of Borrowing Orders. The last Sterling issue for a wholly foreign borrower in London Market was made for Norway in 1952 and for New Zealand in 1971.

5. **Floating rate notes (FRN):** Floating rate notes are like Euro-dollar Bonds in denomination of $ 1,000 each with the difference that they carry a spread or margin above six months LIBOR (London Inter Bank Offered Rate) for Euro-dollar deposits. Floating rates notes have been used by both American and Non-American banks as main borrowers to obtain dollar without exhausting credit lines with other banks.

6. **Floating Rate Certificates of Deposits (FRCDs):** It is a certificate of deposit with a bank carrying floating rate of interest and is a negotiable bearer instrument which could pass title through

delivery. This instrument carry coupon reflecting short term interest rate for six months. The prices of the FRCDs are close to par, the investors chance to lose the capital are rare.

Other types of Eurobonds: Include the following:

(a) **Drop-lock bonds:** It is a floating rate bond, which automatically get converted into fix rate bond at a pre-determined coupon rate. This automatic conversion takes place on reaching a predetermined specified rate of interest. As such, this issue of this kind of bond remains subjected to these conditions.

(b) **Floating rate bonds with variable interest rate:** These are interest bearing bonds carrying fixed coupon rate for short-term which are converted into another bonds of the same nominal value, with longer maturity and/or a lower coupon. These bonds are issued when investor do not commit to long-term investment.

(c) **Detachable warrant bonds:** Where investors are invested in acquiring shares and are guided by movement in share prices, rather than interest rate these bonds provide them money for purchasing equities.

(d) **Deferred purchases bonds:** The bonds are issued with subscription money being deferred for future period recoverable in instalments after a part of the money at the time of issue of bonds.

(e) **Deep Discount and Zero Coupon Bonds:** On these bonds, yield is worked out on coupon price of the bond on maturity to take advantage of future capital appreciation of the bond on maturity.

(f) **Short-term capital notes:** This instrument is designed to help borrower to raise funds through banks credit on a floating rate

basis for medium to long term maturities at a lower cost of borrowing.

11.4.2 Bond Issue Trends (1990-1997)

The first half of the 1990s saw a steady growth of bond markets can be judged from the data presented in the Table 11.1. The total bond volumes increased from $ 229.9 billion in 1990 to $ 467.3 billion in 1995. Bond issue volumes rose perceptibly during the second half of the 1990s, increasing from a level of $ 467.3 billion in 1995 to $ 708.8 billion in 1996 and further to $ 831.6 billion in 1997.

TABLE 11.1: INTERNATIONAL AND FOREIGN BOND ISSUES

Year	Straights	FRN issues	Convertibles	With equity warrants	Zero coupons	Others	Total
1990	158.9	37.1	10.6	21.2	1.5	0.6	229.9
1991	242.7	18.3	10.1	31.6	3.8	2.2	308.7
1992	265.4	43.6	5.2	15.7	3.2	0.6	333.7
1993	369.1	69.8	18.1	20.6	1.8	1.6	481.0
1994	290.6	96.3	21.7	9.9	5.6	4.5	428.6
1995	353.3	78.9	12.3	5.8	8.5	8.5	467.3
1996	464.4	165.7	25.6	8.8	9.7	34.6	708.6
1997	545.5	213.1	35.8	3.1	8.8	25.3	831.6

Source: OECD, Financial Market Trends, Various Issues.

A close analysis of the data given in the Table 11.2 highlights the preponderance of the US dollar as the preferred currency in external bond markets. Despite fluctuations from year to year, ranging between a low of 29.7 of (1991) and a high of 45% (1997), the dollar share remained the highest compared to other currencies or currency composites.

TABLE 11.2: CURRENCY DISTRIBUTION OF INTERNATIONAL BOND ISSUES

(Percentage)

Year	US $	DM	Yen	Swiss France	ECU	Sterling	French Franc	Others	Total
1990	33.3	8.3	13.5	10.5	8.1	9.5	4.3	12.5	100.0
1991	29.7	7.1	12.6	7.1	11.1	8.8	6.1	17.5	100.0
1992	36.9	10.4	11.2	5.8	6.8	7.6	7.5	13.8	100.0
1993	35.9	11.8	9.6	6.1	1.6	10.8	8.7	15.5	100.0
1994	37.5	7.8	13.3	4.8	2.0	8.8	7.0	18.8	100.0
1995	39.5	15.5	12.6	5.6	1.7	5.9	2.8	18.0	100.0
1996	43.0	14.0	8.6	3.3	0.7	8.8	6.4	15.2	100.0
1997	45.0	16.8	4.5	2.6	1.3	8.9	6.4	14.5	100.0

Source: OECD, Financial Market Trends, Various Issues.

Major issues of Bonds: Table 11.3 clearly indicates the predominance of OECD group borrowers and international development organisations over the non-OECD ones, as issuers of external bonds. In particular, the OECD group emerges as the major beneficiary of bond issues, accounting for more than an 85 per cent share of the total external bonds. The share of OECD group countries has always been high in the Euro markets. With increasing problems in countries with newly emerging markets, the global markets have been a special emphasize on quality, which has, in turn, led to further predominance of the OECD group.

TABLE 11.3: MAJOR ISSUES OF INTERNATIONAL BONDS

(Percentages)

Year	OECD	Non-OECD	International Development Institutions	Total
1990	90.6	2.9	6.5	100.0
1991	91.6	3.7	4.7	100.0
1992	89.0	5.1	5.9	100.0
1993	84.8	11.0	4.2	100.0

1994	88.7	8.5	2.8	100.0
1995	89.8	6.4	3.8	100.0
1996	87.2	9.3	3.5	100.0
1997	86.2	10.3	3.5	100.0

Source: OECD, Financial Market Trends, Various Issues.

11.5 EURO EQUITIES

Until the end of the 1970s, international financial markets focused on debt financing, and equity finances were raised by corporate entities primarily in domestic markets. This was due to the prevalent restrictions on cross-border equity investments in many countries. Investors too, preferred domestic equity issues because of the perceived risks implied in foreign equity issues, relating either to foreign currency exposure or apprehensions on the part of the national authorities about restrictions on such investments. The early 1980s witnessed a dramatic change. Slowly but steadily various restrictions on cross-border equity investments started being lifted in many countries. Liberalisation and globalisation of domestic economies implied the opening up of financial markets and systems to overseas investors, while at the same time permitting domestic investors to invest in equity issues abroad. The creation of appropriate infrastructure and communication facilities, and the availability of clearing systems and computer applications, together facilitated the process of cross-border investments in such a way that, by the end of the 1980s, the stage was set for the issuance of Euro-equities on a large scale. The demand for Euro-equities has been sustained by several factors operating in the global equity markets. Corporate restructuring, mergers and acquisitions, spin-offs and divestments in the US and Europe are responsible for a fresh rise in equity issues. The equity investments across the borders have been found to be attractive as they engender a favourable corporate performance and outlook in various sub-continents. Third factor that has facilitated the revival of equity

markets is the low level of long term interest rates. Fourth factor is technological changes and computer applications across the world. The automation of various systems and procedures has transformed the market mechanism, thus simplifying tasks for investors, issuers and the market intermediaries. Automations and technological upgradation have facilitated the overall process of globalisations of equity markets through out the world.

Like debt markets, the global equity markets have grown noticeably, seen significant changes in their mechanics and have attracted the attention of international investors. The equity markets have expanded rapidly during the eighties. Raising finance through equity has emerged as the cheapest way of financing in the 1990s. Moreover, the risk attacked to the equity capital of companies operating in the emerging markets is relatively low as compared to the debt. The equity instruments issued/converted by the Indian Companies are commonly termed as the GDRs i.e. Global Depository Receipts.

The concept of GDR originated in the Western Capital markets in 1927. Originally GDRs were designated as instruments which enabled investors in USA to trade in securities which were not listed in the stock exchanges in USA in the form of American Depository Receipts (ADRs) till 1983. The market for ADRs was largely investor driven and the depository banks were permitted to issue ADRs to investors even without the consent of the company. However, in 1983, the Securities Exchange Commission (SEC) made it mandatory for companies to provide for certain information for issue of ADRs. Similarly, international depository receipts were introduced in UK to enable companies in UK to trade in securities not listed in UK.

11.5.1 Global depository receipts (GDRs)

A global depository receipts (GDRs) can be described as a negotiable instrument usually denominated in US dollars (or a currency other than the domestic currency of the issuer) that represents publicly traded local currency equity shares. For instance, the Government of India guidelines state, “Global depository receipts mean any instrument in the form of a depository receipt or certificate (by whatever name it is called) created by the Overseas Depository Bank outside India and issued to non-resident investors against the issue of ordinary shares or foreign currency convertible bonds of the issuing company.

The prefix ‘global’ allow for trading or making any deal without any restrictions across national boundaries. A GDR is typically designated in US dollars, whereas the underlying shares are denominated in the local currency of the issuer concerned. A depository in the case of a GDR issue is located in a foreign country, where as the custodian is located in the home country of the issuer. GDRs are freely traded in international markets like any other dollar-denominated paper, either through the stock exchange mechanism or on an OTC basis, with the settlement being linked to international clearing systems. The issuing company has to deal with a single party, that is, the depository in the foreign country, as regards payments, notices or right/bonus issues voting rights are typically exercised by a depository in accordance with an understanding reached between the issuing company and the depository concerned. GDRs can be converted into equity shares by the cancellation of GDRs through the intermediation of the depository and the sale of underlying shares in the domestic market through the local custodian.

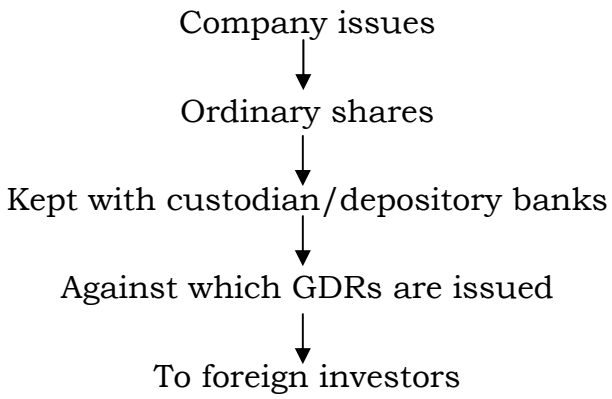
Global Depository Receipts and American Depository Receipts (ADRs) are identical from a legal, operational, technical and administrative standpoint. Simply, the word ‘global’ is used when securities are to be issued on a global basis, that is, to investors not restricted to the US ADRs are depository receipts issued in United States of America (USA) in

accordance with the provisions of Securities and Exchange Commission. Since US market exposes to a higher level of responsibility, disclosures, costs, liability and timing. Listing provisions in USA are very stringent. Issue of ADR is costlier due to high level of legal fees, underwriting commission, road show costs, investor relations and registration fees. The broader the investor base in USA, the higher is the potential of legal liability for inadequate disclosures. In theory, though a depository receipts can also represent a debt instrument, in practice it really does. DRs (Depository Receipts) are created when the local currency shares of an Indian company are delivered to the depository's local custodian bank, against which the depository bank issues depository receipts in US dollars. These depository receipts may trade freely in the overseas market like any other dollar-denominated security, either on a foreign stock exchange, or in the over-the-counter market, or among a restricted group such as Qualified-Institutions Buyers (QIBs). Indian issues have taken the form of GDRs to reflect the fact that they are marketed globally rather than in a specific country or market. Rule 144A of the Securities and Exchange Commission of USA permits companies from outside USA to offer their GDRs to certain institutional buyers. These are known as Qualified Institutional Buyers (QIBs). There are institutions in USA which, in the aggregate, own and invest on a discretionary basis at least $ 100 million in eligible securities.

Through the issue of depository receipts, companies in India have been able to tap global equity market to raise foreign currency funds by way of equity. Quite apart from the specific needs that, Indian companies may have for equity capital in preference to debt and the perceived advantages of raising equity over debt in general (no repayment of principal and generally lower servicing costs, etc.) the fact of the matter is quite simple, that no other form of term foreign exchange funding has been available. In addition, it has been perceived that a GDR issue has been able to fetch higher prices from international investors (even where Indian issues were

being sold at a discount to the prevailing domestic prices) than those that a domestic public issue would have been able to extract from Indian investors.

The mechanics of a GDR issue may be described with the help of following diagram-



Procedure for GDR issue: In a GDR issue, the issuing company issue ordinary shares as per the scheme and delivers the ordinary shares to domestic custodian bank, which will, in terms of the agreement, instruct the overseas depository bank to issue global depository receipt or certificate to the non-resident investor against the shares helped by domestic custodian bank. GDR is normally issued in negotiable form and may be listed on any international stock exchange for trading outside India. Most companies list GDRs in Luxembourg or Dublin Stock Exchanges. The shares underlying the GDRs will be registered in the name of the overseas depository bank, which will be the holder on the books of the company.

The non-resident holder of GDR may transfer these receipts, or may ask the overseas depository bank (ODB) to redeem those receipts. In case of redemption, the ODB shall request Domestic Custodian Bank (DCB) to get the corresponding underwriting share released in favour of the non-resident investors for being sold directly on behalf of the non-resident or

being transferred in the books of account of the issuing company in the name of the non-resident.

In case of redemption of GDRs into underlying shares, a request will be transmitted by the ODB to the DCB with a copy to the company.

The cost of acquisition of the shares shall be the cost on the date on which the ODB advises the DCB for redemption. The price of the shares on the BSE shall be taken as the cost.

Holders of GDRs will have no voting rights or other direct rights of a shareholder with respect to the shares underlying such GDRs. Some offering circulars provide that the ODB shall vote as directed by some other group company of the issuing company. Registered holders of shares withdrawn from the depository arrangement will be entitled to vote and exercise other direct shareholders rights in accordance with the Indian law. Withdrawn shares cannot be redeposited.

Holders of GDRs will be entitled to receive dividends paid on the underlying shares, subject to the terms of the issue. So long as the GDRs are not withdrawn, the relevant ODB will, in connection with such outstanding shares, convert rupee dividend into dollars.

Benefits of GDR to the issuing company: Advantages of GDR to issuing company are as under:

Risk of fluctuation of foreign exchange rate, as dividend is paid only in rupees, is obviated. In case of interest payments on borrowings company has to bear this risk, though issue proceeds are received in dollars in both cases.

The issuing company interfaces with only depository bank regarding its statutory duties such as rights issue, bonus issue, dividend payments,

notice of AGM, etc. thus eschewing piles of workload for administrative department.

A GDR issue, basically, entails issue of equity shares. It enjoys same advantages as in case of domestically raising equity over debt. These benefits include no repayment of principal, no bondage to pay specific sum as interest, generally lower servicing costs, etc.

A GDR issue fetches hefty premium from international investors which companies were not able to extract from Indian investors an Indian issues were priced at a heavy discount to the prevailing domestic share prices. Reason being influence of a old CCI price formulae on domestic issues.

Indian companies can strike voting agreements with depository bank, who is official owner of shares on companies' record. This facility of voting agreements is not available in local market.

GDRs enable companies to broaden the market for its shares, thus enjoying a more diversified exposure and resultant less volatility of its share prices.

GDRs make a company truly a multinational company and help in creating company's and its products image.

Expectations of foreign investors to get an accurate and timely report on companies' performance shall have the effect of companies being more professionally managed and work culture changed accordingly.

With pressure of sale of shares abroad, management shall have to improve the availability of inside information. Once the financial reporting satisfies foreign investors, management would provide the same quality of information to every shareholder and not only to foreign investors, in the long run.

Increased holding of Indian securities abroad shall help to curb gradually insider trading as there would be the increase in pressure on the stock exchange, SEBI and the Government of Indian to curb insider trading.

Indian companies shall face more pressure to adopt the international standards (IAS) because his would help in convincing foreign investors about health of financial statements, as investors are more familiar with accounting reports prepared according to IAS.

Indian banks have found themselves flooded with idle funds as astronomical requirements of funds of big companies are satisfied through Euro issues. Thus banks have enough resources to lend to small scale and medium sized industries. It further, led banks to look-for other avenues like consumer goods finance, etc.

GDRs enable the foreign mutual funds, pension funds and other institutions to acquire securities outside their domestic markets and also circumventing foreign investment restrictions.

Benefits to the investors: Increasing, investors aim to diversify their portfolios internationally. Obstacles, however, such as undependable settlements, costly currency conversions, unreliable custody services, poor information flow, unfamiliar market practices, confusing tax conventions, etc. may discourage institutions and private investors from venturing outside their local market. As a result, more and more investors are using GDRs. The investors are benefited since:

- GDRs are usually quoted in dollars, and interest and dividend payments are also in dollars.
- GDRs overcome obstacles that mutual funds, pension funds and other institutions may have in purchasing and holding securities outside their domestic markets.
- Global custodian/safe-keeping charges are eliminated, saving GDR investors 30 to 60 basic points annually.

- GDRs are as liquid as the underlying securities because the two are interchangeable.
- GDRs clear and settle according to US standard.
- GDRs overcome foreign investment restrictions.
- GDRs give an option to convert the same into underlying shares and hold equity shares of the company instead of GDR. However, a foreign investor prefers to hold GDRs in view of a number of laws relating to tax, stamp duty, depository charges, etc. involved if the GDRs are converted into shares.

Disadvantages of GDRs

- Takeover threat- GDRs are freely traded outside India. Issuer has no control over registrations of transfer as record ownership in India does not change with every sale abroad. A non-resident raider can gradually acquire the GDRs to make substantial holding in the share capital of the company and eventually withdraw the shares for direct ownership.
- Dilutions of EPS-GDRs result into immediate braidings of equity base, thus EPS will suffer a setback till the profits from fresh investment start pouring in.
- Pricing of GDRs are expected to be at a discount to the local market price.
- It is sometimes necessary to use warrants with GDRs to disguise discount, which can increase dilution.
- In India, GDR issues have an uneven track record for international investors.
- Cost of issue is very high due to high listing fees in foreign country and conversion of all accounts as per US-GAAP.

11.6 SUMMARY

The essence of financial management is to acquire and utilize the funds effectively. This also hold true for the procurement of funds in the international capital market, for a multinational firm. There are a number of agencies and instruments through which funds move to the resource needy firms. These agencies may be official or non-official. The official sources comprises of international development banks, bilateral agencies. Non-official sources comprises of borrowing and lending market involving international banks, debt securities and equity securities, etc.

Until the end of the 1970s, international financial markets focused on debt financing, and equity finances were raised by corporate entities primarily in domestic markets. By the end of 1980s, the stage was set for issuance of Euro-Equities. On a large scale and raising finance through equity has emerged as the cheapest way of financing in the 1990s.

11.7 KEYWORDS

Euro The common European currency introduced in 1999 of the 11 countries of the European Union that comprise the EMU.

Eurobond A bond issue denominating in a particular currency but sold to investors in national capital markets other than the issuing country.

Eurodollar A commonly used abbreviation for funds held in the form of Eurodollar deposits.

Euroequity (Issues) Shares sold simultaneously in two or more country's stock markets.

Foreign (Bank) Subsidiary Locally incorporated bank owned completely or partially by a foreign parent.

Foreign Bond A bond sold by a foreign issuer and denominated in the currency of the country of issue. For example, a US dollar denominated bond of a Canadian firm issued in the United States is a foreign bond.

International Banking Facility Banking operating within domestic US banks acts as foreign banks in US and as such are not bound by domestic reserve requirements.

London Inter Bank Offer Rate (LIBOR) The inter bank interest rate at which a bank will offer euro currency deposits to another bank in London. It is often used as the basis for setting Euro currency loan rates. The loan rate is determined by adding a risk premium to LIBOR.

Organization for Economic Cooperation and Development (OECD) A Paris-based government level organization providing information and advice on the economies of its 24 member nations, which include the United States and most of Western Europe.

Special Drawing Rights (SDR) An artificial international reserve created by the international monitory fund (IMF) which is a currency basket currently comprised of five major currencies.

11.8 SELF ASSESSMENT QUESTIONS

1. What are long-term sources of funds for a multinational company?
2. Distinguish between official sources of long-term funds and non-official sources of long term funds.
3. What you understand by Euro-Issue? Explain the different kinds of Euro-issues.
4. What do you mean by Global Depository Receipts? Explain the advantages and disadvantages of issuing GDR to issuing company.
5. What do you mean by internationalisation of capital markets? Explain the benefits of internationalisation of capital markets.

11.9 REFERENCES/SUGGESTED READINGS

Bhalla, V.K., "International Financial Management", Anmol Publications Pvt. Ltd., New Delhi, India, 2000.

Brown, Robert L., "Some Simple Conditions for Determining Swap Feasibility", unpublished, Monash University, Australia, 1986.

Edwards, Franklin R., "Listing of Foreign Securities on U.S. Exchanges", *Journal of Applied Corporate finance*, winter 1993, pp. 28-36.

Maurice, D. Levi, "International Financial Management and the International Economy", McGraw-Hill Book Company, 1988.

Nauman-Etienne, Rudiger, "A Framework for Financial Decisions in Multinational Corporations– A summary of Recent Research", *Journal of Financial and Quantitative Analysis*, November 1974, pp. 859-875.

Shapiro, Alan C., "Multinational Financial Management", Prentice Hall of India Pvt. Ltd., 2002.