Lesson - 1

Globalization of Trade

Objectives of the Lesson:

After studying this unit you should able to:

- Meaning of globalization
- Explain the Liberalized Foreign Investment Policy
- Discuss the New Global Economic War
- Explain the various International Financial Institution / Development Banks involved in global trade

Structure of the Lesson:

1.0 Introduction

Globalization of trade implies **'universalisation of the process of trade'.** In 1990, increased openness to international trade, under such headings as, "outward orientation" or "trade liberalization" has been advocated as an engine of economic growth and a road to development. The marginalization of Indian economy together with many other factors resulted in a severe balance of payment crisis. The foreign exchange reserves fell rapidly to less than three weeks of our imports needs. In order to overcome this situation, and boost up

exports, the Government initiated steps for the dismantling of restrictive policy instruments through reforms m trade, tariff, and exchange rate policies.

After examining the list of imports and exports, the following corrections were made: gradual withdrawal of many of the quantitative restrictions on imports and exports, shifting of a significant number of items outside the purview of import licensing, considerable reduction in the level of tariff rates, Exim scrip's devaluation of rupee, partial and later on full convertibility of rupee etc.

1.1 Liberalized Foreign Investment Policy

In June 1991, Indian government initiated programme of macro economic stabilization and structural adjustment supported by IMF and the World Bank. As part of this programme a new industrial policy was announced on July 24, 1991 in the Parliament, which has started the process of full-scale liberalization and intensified the process of integration of India with the global economy.

A Foreign Investment Promotion Board (FIPB), authorized to provide a single window clearance as been set up. The existing companies are allowed to raise foreign equity levels to 51 per cent for proposed expansions in priority industries. The use of foreign brand names for goods manufactured by domestic industry, which was restricted, has also been liberalized. India became a signatory to the convention of MIGA for protection of foreign investments.

Companies with more than 40 per cent of foreign equity are now treated on par with fully Indian owned companies. New sectors such as mining, banking, telecommunications, high-way construction, and management have been thrown Open to private, including foreign owned companies. The investment policy and the subsequent policy

amendments have liberalized the industrial policy regime in the country especially, as it applies to foreign direct investment beyond recognition.

1.2 New Global Economic War

After the Second War and the IMF par value system came into existence, we became part of the new world system. Countries had exchange control and various sorts of trade restrictions. It was after the Seventies that gradually a scheme of flexible exchange rates came into existence among leading developed countries. Gradually the developed countries started freeing their exchange rates and also moved towards their system off free trade.

The World Trade Organization, of which we are a member, is now introducing all over the world a free trade system. After the advent of Economic Reforms from 1991-1992, we have moved over to currency, convertibility on current account. The importance of the World Bank as financier has diminished considerably. The world is now dependant on private capital imports. Even the role of the IMF has diminished with most countries adopting currency convertibility. Capital flows are moving on a large scale dependent on incentives. Most countries have lifted trade barriers and reduced import duties.

The WTO is introducing system in which domestic subsidies have to be removed and uniform and low import duties have now to become the standard. There is no place for tariff barriers and non-tariff barriers are also now getting lifted. The world's industries are now organized largely in terms of multinational corporations whose operations transcend many countries. International demonstration effects are working powerfully in determining the living styles in all countries.

1.3 International Financial Institution / Development Banks

1.3.1 International Monetary Fund (IMF)

This international monetary institution was established by 44 nations under his Bretton Woods Agreement of July 1944. The main aim was to remove his economic failures of 1920s and 1930s. The attempts of many countries to return to old gold system after world war failed miserably. The world suppression of the thirties forced every country to *abandon* gold standard. This led to the adoption of purely nationalistic policies whereby almost every country imposed trade Restrictions, exchange control, and resorted to exchange depreciation in order to encourage its exports. This will lead to further spread of depression. It was against this background that 44 nations assembled at the United Nations monetary and financial conference at Breton woods, New Hampshire (USA) from 1st July to 22nd July 1944. Thus the IMF was established to promote economic and financial co-operation among the members in order to facilitate expansion and balanced growth of world trade. It started functioning from 1st march 1947.

The fundamental purpose and objectives of the fund had been said down in Article of the original Articles of agreement and they have been upheld in the two amendments that were made in 1969 and 1978 to its basic charter. They provide the framework within which the fund functions they are as under:

1. To promote the international monetary cooperation through a permanent institution. This can provide the machinery for consultation and collaboration in the international monetary problems.

2. To facilitate the expansion and balanced growth, of international trade and to contribute promotion and maintenance of high levels of

employment and real income and to the development of the productive resources of all members.

3. To promote exchange stability, to maintain orderly exchange arrangements among members, and to avoid competitive exchange, depreciation.

4. To assist in the establishment of a multilateral system of payments in respect of current transactions between members and in the elimination of foreign exchange restrictions.

5. To give confidence to members by making the general resources of the fund temporarily available to them under adequate safeguards thus, providing them with opportunity to correct adjustment in their balance of payments without resorting to measures destructive to national or international prosperity.

Thus the role of IMF is mainly Two Fold: It is an organization to monitor the proper conduct of International monetary system second.

IMF can by way of borrowing it can supplement its own resources. In the year 1962 a significant achievement can be made by way of entering into general Arrangement to borrow. Under this agreement ten industrialized countries agreed to send to IMF their own currencies up to the limit agreed. The ten countries known as group of 10 countries include Belgium, Canada, France, West Germany, Italy, Japan, Netherlands, Sweden, U. K, and U. S. It can borrow under this arrangement only when the funds are needed for a participant in the agreement was only four years. It was subsequently received periodically and the latest reward was made in 1984 in an expanded form. Switzerland also joined the arrangement with the group of so. The total commitment by these countries increased to USD 17.65 billion.

It provides temporary assistance to members to tide over the balance of payments deficits. When the country requires foreign exchange, it tenders its own currency t the IMF and gets the required foreign exchange. This is lower as Drawings from the ISSF. When the Balance of Payment position improves, it should repurchase its currency from the IMF and repay the foreign exchange.

Compensatory financing facility was introduced in 1963 to provide reserves to countries that are heavily dependent on the export of primary products. It main purpose is to provide the needed foreign exchange to a country experiencing balance of payment deficit due to a temporary export shortfall caused by circumstances beyond the countries control. Under this scheme, funds equivalent to 100% of its quota can be draw by a country in addition to those available under the franche policies. A country need not exhaust its reserves franchise before making use of the compensatory financing facility. But it most agrees to co-operate with the IMF in working out appropriate solutions to its Balance of payments problems.

Buffer stock financing was created in 1969 for financing commodity buffer stock by member countries the facility is equivalent to 30 percent of the Borrowing members quota. Repurchases are made in 3 1/4 to 5 years. But the member is expected to co-operate with the fund in establishing commodity prices within the country

The extended fund facility is another specialized facility which was created in 1974. It is based on performance criteria and drawing instilments, it is availed by developing countries.

The supplementary financing facility was established in 1977 to provide supplementary financing under extended or stand by arrangements to member countries to need serious balance of payments deficits that are large in relation to their economics and their quotas. This facility has been extended

to low income developing member countries of the fund. To reduce the cost of borrowing under this scheme to such countries, the fund established subsidy account in 1980 through which it makes subsidy payments to borrower countries.

Structural adjustment facility was set up made 1986 to provide confessional adjustment to the poorer developing countries. Loans are granted to them to solve balance of payments problems and to carry out medium term macro economic and structural adjustment programmes. Enhanced Structural Adjustment Facility was created in 1987 with SDR 6 billion of resources for the medium term financing needs of low income countries. Disbursements under this scheme are semi annual instead of annual.

Compensatory and contingency financing facility was created in 1988 to provide timely help for temporary short falls or excesses in cereal import cost due to facers beyond the control of members and contingency, financing to help a member to maintain the memorandum of fund supported adjustment programmes in the face of external shocks on account of factors beyond its control. It replaces the compensatory financing facility for export fluctuations of 1963 and facility for financing fluctuations in the cost of cereal imports of 1981. In 1990, the fund introduced an important element into CCFF for a temporary period up to the end of 1991 to help members overcome the Gulf war crisis.

The most important feature of IMF system as originally conceived was the exchange rate exchange rate arrangement of its member countries. The original aim of IMF incorporate the feature of the gold exchange standard basic structure of exchange rates, with flexibility built into it to a certain extent. One or two major countries remain on gold standard and their currencies their currencies are convertible into gold. Other countries make their currencies convertible in to the currency which remain on gold standard.

The same arrangement was retained in the IMF dollar taking the place of the convertible an account of the functioning of exchange. The IMF has performed well as an international monetary institution. It has been supplying different currencies to different countries for making adjustments in their balance of payments over a long period. Both the developed and developing countries have made extensive use of its resources. It has tried to solve the problem of international liquidity by making suitable amendments to its Articles of agreements. It has this proved its flexibility by moving with the changed international economic conditions. But it can not be said that it has been our overall success in fulfilling its objectives. Some of its criticisms are discussed as under:

1. The fund has been conservative, laid down stringent conditions for lending with high interest rates.
2. It has developed conditionality practice over the last three decade.
3. It has been playing only a secondary role rather than the central role in international monetary relations. It does not provide facilities for short term credit arrangements.
4. The IMF has enough resources for the immediate future. But these are not sufficient to meet the future needs of its members.
5. The fund also failed in its objectives of promoting exchange stability and to maintain orderly exchange arrangement among members.
6. One of the objectives of the fund has been to eliminate foreign exchange restrictions which hamper the growth in world trade. The fund has not been successful in achieving this objective. The world trade is restricted by a variety of exchange controls and multiple exchange practice.
7. The fund has *been* criticized for its discriminatory policies against the developing countries and in favour of the developed countries. It is therefore,

characterized as "Rich Countries' Club" it is dominated especially by United States.

1.3.2 The International Finance Corporation (IFC)

IFC was established in 1956 with the specific purpose of extending the finance support to private enterprises. It is an affiliate of IBRD. The Articles of agreement of IFC are similar to that of the World Bank. A country has to be a member of the World Bank in order to join the IFC. In June 1996 it had 181 members. The IFC can borrow from the World Bank four times its subscribed capital and surpluses. It can also borrow from the International money market. The purpose of the IFC is to further the economic development by encouraging growth of private enterprise in member countries, particularly in the less developed areas, thus supplementing the activities of the IBRD. The IFC, therefore

1. Invests in private enterprise in member countries, in association with the private investors and without government guarantee, in cases where sufficient private capital is not available on reasonable terms.
2. To bring together investment opportunities private capital of both foreign and domestic origin, and experienced management and.
3. Stimulates condition conducive to his flow of private capital, domestic and foreign, into productive investment in member countries.

The activities were:

1. Project identification and promotion
2. It helps the member countries to establish, and improve privately owned development finance companies and other institutions which are themselves engaged in grounding and financing private enterprise.
3. Encouraging the growth of capital markets in the developing countries. Thus it does by a) providing support to financial institutions in developing

countries to meet their investment needs and b) by promoting his investors in developed countries to participate in these capital markets.

4. Giving advice and technical counsel to developing countries in measure that will create a climate conducive to growth of private investment.

The IFC had a slow beginning and much of its assistance was concentrated in Latin and Central American Countries. But in recent years it has diversified its area of operations and many developing countries stand benefited. India has also received substantial assistance from IFC.

1.3.3 The World Bank

The International Bank for Reconstruction and Development (IBRD) or the World Bank was established in 1945 under Bretton Woods Agreement of 1944 to assist in bringing about a smooth transition from a War time to peace time economy. It is *a* sister concern of the international monetary fund.

The Functions of IBRD are:

1. To assist in the reconstruction and development of territories of its members by facilitating the investment of capital for productive purpose, and the encouragement of the development of productive facilities and resources in less developed countries.

2. To promote private foreign investment by means of guarantees on participation in loans and other investments made by private sectors, and when capital is not available at reasonable terms, to supplement private investment by providing finance for productive purpose out of its own resources of from borrowed funds.

3. Prerequisite to the long range balanced growth of international trade and the maintenance of equilibrium in the Balance of Payments of member countries by encouraging international investment for the development of their productive resources. There by assisting in raising

productivity, his standard of living our conditions of workers in their territories.

4. To arrange the loans made or guaranteed by it in relation to international loans through other channels so that more useful and urgent. Shall and large projects are dealt with first.

The Bank can make or facilitate loans in any of the following ways.

1. By making or participating in direct loans out of it's our funds.

2. By making or participating in direct loans out of funds raised in the market of a member or otherwise borrowed by the Bank; and

3. By guaranteeing in whole or part loans made by private investors through the usual investment channels.

In short, the Bank may make loans directly to member countries or it may guarantee loans granted to member countries. The Bank normally makes loans for productive purposes like agriculture and rural development, power, industry, transport etc. The total amount of loan sanctioned by his Bank should not need 100% of its total subscribed capital and surplus. The banks adopt the following policies in respect of its loans and guarantees.

1. All loans are made to Governments or they must by guaranteed by governments.

2. Repayment is to be made within 10 to 35 years.

3. Loans are made only in circumstances in which other sources are not reading available.

4. Investigation is made of his probability of repayment considering both the soundness of the project and the financial responsibility of his Government.

5. Sufficient surveillance is maintained by the bank over his carrying out of the project to assure that of is relatively well executed and managed.

6. Loans are sanctioned on economic and not political consideration.

7. The loan is meant to finance the foreign exchange requirements of specific projects; normally the borrowing country should mobilize its domestic resources.

Two aspects of lending activities of the bank deserve to be high lighted. First since the bank has to finance high priority productive sectors of economics and determine "creditworthiness" of the borrowers. The banks comprehensive and limited pre investment surveys, which are financed by his bank, have created a situation where the head quarters of the bank has become a "monitoring" centre of the economics of the borrowing countries. Secondly banks dependence for resources on capital markets of the world influences its economic and social philosophy which is based on the doctrine of free enterprise.

The activities are:

1. Project identification and promotion

2. It helps the member countries to establish, and improve privately owned development finance companies and other institutions which are themselves engaged in grounding and financing private enterprise.

3. Encouraging the growth of capital markets in the developing countries. Thus it does by:

a) Providing support to financial institutions in developing countries to meet their investment needs and

b) By promoting investors in developed countries to participate in these capital markets.

4. Giving advice and technical counsel to developing countries in measure that will create a climate conducive to growth of private investment.

1. 3. 4 The World Bank Groups

The World Bank has at present three affiliates. The International Development Association, the International Finance Corporation, and the Multilateral Investment Guarantee Agency. These are discussed below:

- **The International Development Association**

It is the "soft loan window" of IBRD which was established in September, 1960. It is an affiliate of World Bank. The president of the World Bank *is* its head. The main objectives of the IDA are two fold:

1. To provide assistance for poverty alleviation to the world's poorest countries.

2. To provide concessional financial assistance and macro economic management services to the poorest countries so as to raise their standard of living. There relate to human resource development including population control development of health, nutrition and education for the overall objectives or removing poverty.

The finance may be made available to the member governments or to the private enterprise. Advances to private enterprises may be made with out government guarantees. The credit is interest free. Only a small service charge of 0.75% per annum is payable on the amount with drawn and outstanding to cover administrative expenses. Repayment period is long extending over 50 years. There is an initial moratorium for 10 years and the amount borrowed is repayable in the next 40 years. IDA finances not only the foreign exchange component but also a part of domestic cost. The credit can also be repaid in the local currencies of borrowing countries. Thus, the repayment of loan does not burden the balance of payments of the country. IDA loans are known as "credits" which are made to government only. Loans are given for such projects for which no assistance is provided by the World Bank before approving credit in special committee of the IDA considers three criteria.

a. Poverty criterion: A country where population pressure is high and productivity is low, there by leading to a low standard of living of the people.

b. Performance criterion: It relates to past performance in terms of loans received whether form IDA or the World Bank. It must have been pursuing macro economic policies and executing projects satisfactorily.

c. Project criterion: The projects for which credits are to be utilized must yield financial and economic returns to justify their.

On the basis of the above criteria, the IDA sanctions credit for agriculture, education, health, nutrition water: supply, sewerage etc. such credits which are known as "soft loans". IDA has been blessing for the developing countries In keeping with the objectives, most of the assistance has gone to high development priority projects which could not get finance form other sources.

- **International Finance Corporation**

The IFC had a slow beginning and much of its assistance was concentrated in Latin and Central American Countries. But in recent years it has diversified its area of operations and many developing countries stand benefited. India has also received substantial assistance from IFC. Right from the president, ail the senior officers of the World Bank are its officers. Its annual report forms part of the World Bank report and is submitted simultaneously.

- **Multilateral Investment Guarantee Agency**

The IBRD has established it's another affiliate to be known as the Multilateral Investment Guarantee Agency (MIGA) carried to give encouragement for foreign investment in developing countries by issuing Guarantees against non commercial rises. MIGA provides guarantee to private investors against four types of non commercial rises;

i. Transfer risk of corporation

ii. Risk of government repudiation of contractual commitments;

iii. Risk of armed conflicts and

iv. Civil unrest.

The very important aim of promoting his new agency is stated to the declining trend prevailed in capital inflow to developing countries.

1.3.5 Asian Development Bank

This was started in 1966 under the aegis of United Nations economic commission for Asia and for east. Its membership consists of countries form Asian region as well *as* from other regions. There are 47 members of whom 32 countries from Asia-Pacific region and 15 countries are from Europe and North America.

The functions are:

1. Investment promotion in the ECAFF region of public and private capital for development purposes.

2. The available resources are utilized for financing the priority those regional and sub regional and national projects and programmes which will contribute most effectively to the harmonious economic growth of the region as a whole, and having special regard to the needs of the smaller or less developed member countries in the region.

3. Assist members in coordination of their development policies and plans with a view to achieving better utilization of their resources making their economies more complimentary, and providing the orderly execution of their foreign trade, in particular, intra regional trade.

4. It provides technical assistance for preparation financing and execution of development projects and programmes, including the formulation of specific proposals.

5. To co-operate with the United Nations and its subsidiary bodies, including, in particular ECAFE and with public international organizations and other

international institutions as well as national entities whether public or private, and to interest such institutions and entities in now opportunities for investment and assistance and undertake such other activities and to provide such other services as may advance its purpose.

6. It may make to loans to or invest in the project concerned and give guarantee to loans granted to the projects. It will finance principality specific projects in his region and also provides programmes, sector and multi project loans. Most of the loans granted are hand loans or tied loans. However, loan from special funds set aside by the ADB up to 10% of paid up capital are granted Tinder soft loans. These soft loans are granted to projects of high development priority and requiring longer period of repayment with lower rates of interest.

Asian Development Bank acts as major catalyst in promoting the development of the most populous and fastest growing region in the world today. The Bank is also actively expanding its financing activities; with official as well as commercial and export credit sources. It also enters into equity investment operations. India is the 2nd largest subscriber after Japan among the regional members and third largest among all members after Japan & U. S. A. but it has started to avail loan only recently.

Review questions:

1. Explain the globalization of trade
2. Discuss the recent trends in New Global Economic War
3. Explain the various International Financial Institution / Development Banks involved in global trade

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Lesson - 2

Globalization and Capital Markets: An Emerging Scenario

Objectives of the Lesson:

After studying this unit you should be able to:

- Discus about Globalization of Capital Markets and Financing Mix of Firms.
- Explain the risks of financing internationally.
- Know about types of Bonds.
- Discuss Emerging Markets for Capital Investment
- Discuss the developments in Global Finance, Markets, and Institutions in the Asian Region
- Know the key trends in International Capital Markets
- List out important consequences due to the Prevailing Trends in International Capital Markets
- Appreciate role of India in the Global Scenario

Structure of the Lesson:

2.0 Introduction

Globalization of capital markets is one of the most important aspect global businesses. Capital markets globalization refers to removal of all restrictions on capital flows. One can export or import capital without restrictions. In a truly global capital market banks involved in foreign exchange can convert one currency into another without asking questions. One can maintain foreign exchange account in one country or another legally. There is absolute freedom to acquire foreign assets at the official exchange rate since the barriers between one country and the rest of the world would vanish for all economic reasons. The phenomenon of global capital market is fallout of the new emerging trend in borderless world due to the virtual abandonment of trade and exchange controls in most developing countries which makes capital truly global in nature. This enables global capital market flow freely to wherever it can earn the highest reward with commensurate risk.

2.1 Capital Markets Globalization and Financial Mix of Firms

The Globalization of capital markets has two impacts: First a firm raises its capital, fit the simplest level, access to the world's capital markets allows the firm to substitute money raises in foreign countries for money raised in domestic capital market. There may be number of motives for making such substitution, the most important being lower cost of foreign capital and the lower foreign exchange risk. Next is firms that internationalize their financing strategy have a greater range of opportunities for raising debt capital. Recess to international capital markets may result into a firm altering its target capital structure. When a firm gains access to a foreign capital market where the cost of debt is lower than the cost of debt in the domestic capital market it is inclined to increase the proportion of debt in its capital structure.

The capital structure decision has become complicated with the globalization of capital markets,. The firm must decide where to raise capital (London, Tokyo, the United States etc,). It should decide the currency in which to borrow (Pounds, yen or Dollar). It should also decide on a target debt ratio in the capital structure. Since the decisions are interrelated there is a difficulty in making these decisions. Proper decision-making procedure should be adopted in order to arrive at a simultaneous solution to all these problems identified.

2.2 The Risks involved in raising finance internationally

A company can do international financing by either issuing equity shares or raising debt in the international capital market. The issue of equity shares for raising capital does not involve any exchange risk as a company is not required to return the money procured through the issue of equity capital. However the same is not true in the case of debt financing. The money raised through the issue of debt has to be returned in future. Therefore debt financing poses a risk the degree of which depend upon the fluctuations in the exchange

rates. International borrowings can be broadly categorized into three classes on the basis of foreign exchange risk involved.

1. Financing in the currency in which cash inflows are expected.
2. Financing in a currency other than that in which cash inflows are expected, but with cover in the forward or swap market.
3. Financing in currency other than in which cash inflows are expected, but without forward cover or an appropriate swap

Financing by way of the first two methods avoids foreign exchange risk. Financing through the third option is risky. While the interest rates and capital repayments are fixed in foreign currency terms, the amount of home currency required to serve and repay the debt is not known with certainty due to the fluctuating exchange rates.

International borrowing is safer when:

(1) Stability in Exchange rates

(2) Inflows are expected in the same currency in which borrowing is effected and

(3) Cash inflows are expected in a currency other than the currency of borrowings but a forward cover or an appropriate swap is available.

Globalization of capital markets has led to supply of cross border equity from the emerging capital markets for cross listing and this in turn has fostered intense competition in major international exchanges. Firms all over the world now have broader investor groups and the most commonly used vehicles for cross listing are American Depository Receipts (ADRs) and Global Depository Receipts (GDRs).

ADRs are negotiable certificates issued by an American Bank that are backed by ownership claims on the company's equity, which trades in the home market. These are denominated in US dollars and dividends on the

underlying shares are paid in dollars. Similarly GDRs are traded in exchanges outside US mainly in the London Stock Exchange.

The international listings can significantly reduce the degree of segmentation by providing an avenue through which firms and investors can sidestep some of the restrictions on capital flows that contribute to the segmentation of international capital markets. The increasing integration of equity markets across the world made listing of shares on the major world exchanges a natural choice for companies. Though this process is too costly because of very heavy legal and accounting fee coupled with the obligation of reconciling the accounts to international standards, companies perceive great strategic, financial, and operational benefits through ADR and GDR issues. A major benefit perceived by the company is savings in the cost of capital as the market risk gets diversified and is also protected against liquidity of trading in its shares. The real effect of globalization of Indian Capital markets and cross listings started only post mid 90s. As of the middle of the year 2001 about 72 companies had issued ADRs and GDRs of which over 30 were cross listings, which was between the periods 1995 to 2001.

2.3 Foreign Currency Convertible Bonds (FCCBs)

FCCBs are a medium/long term debt instrument carrying a fixed rate of interest and having an option for conversion into fixed number of shares of the issuing company. If the issuer company desires, the issue of such bonds may carry two options:

(a) Call option:

Where the terms of the issue of the bonds contain a provision for call option, the issuer company has the option of calling (buying) the bonds for redemption before the date of maturity of the bonds. Where the share prices of the issuer company have appreciated substantially, i.e. for in excess of the redemption value of the bonds, the issuer company can exercise this option.

(b) Put Option

Provision of put option gives the holder of bonds a right to put (sell) his bonds back to the issuer company at a predetermined price and date.

2.4 Types of Bonds

A number of variations of FCCBs have evolved in past few years. They are as follows:

- **Deep Discount Convertible**

Such bond is usually issued at a price which is 70 to 80 per cent of its face value and the initial conversion price and the coupon rate level are lower than that of a conventional Euro Bond, since there are no interest payments. The maturity period in some cases may extend even up to 25 years.

- **Zero Coupon Convertible bonds**

Zero coupon convertible bonds have been mainly used in U.S. markets. These bonds are Zero Coupon securities issued at deep discounts to par value. Thus, the investor's return is the accretion to par value over the life of the instrument. The issuer escapes the periodic interest payments in gestation period of the project and yet is allowed to deduct the implied interest from taxable income.

- **Bulldog Bonds**

This is an issue in sterling in the domestic Uk market by a non-UK entity.

- **Vankee Bonds**

Vankee Bonds are domestic US dollars issue, aimed at the US investor made by non-US entity.

- **Samurai Bonds**

Samurai Bonds are long term, domestic yen debt issue targeted at Japanese investors and mode by a non-Japanese entity.

- **Bunny Bonds**

These bonds permit the investors to reinvest their interest income into more such bonds with the some terms and conditions. Such an open to invest interest at the original yield is attractive to long term investors, pension funds, etc. and the companies find it as a cheap source of finance.

- **Euro Rupee Bonds**

Although these bonds do not exist, several foreign institutions are considering this instrument as a means for rising finance. Denominated in Rupees, Euro Rupee Bonds can be listed in Luxembourg. Dividends will be paid in Rupee and investors will face the risk of currency fluctuation.

- **Dragon Bond**

Dragon Bonds come in dollars, yen, and other currencies to attract the Russian investors.

- **Bonds with Equity or Warrants**

A derivative of Euro bonds is bonds with Equity Warrants, which are a combination of debt, with the investor on option on the issuer's equity. A warrant is attached to the host bond and entitles the investor to subscribe to the equity of the issuing company at a predetermined price. The warrant price of shares is normally 10-15% above the share price at the time bond is issued and the warrants exercisable on or between specified dates. Warrants are physically separate from bonds and therefore, can be detached and traded as securities. Therefore, an investor has the benefit of having two separately marketable instruments. Based on risk involved yield and the expectations of both issuer and the lender, there may be structural variations in these instruments.

- **Bull-Spread Warrants**

These warrants provide an exposure to the investors to underlying shares between a lower level X and on upper level 'U'. The lower level is set to provide a return above the dividend yield on the shares. After the maturity

period (which is normally three years) if the share price is below the lower level X, the investor receives the difference from level 'U' the issuer has to pay only the amount at level 'U' In case, the stock is between X and 'U' on maturity, the issuer has a choice of either paying the cash to the investor or delivering shares. Such a variation is best suited to companies having low dividend yield since the lower level is set above the dividend yield on shores.

- **Money Back Warrants (MBWs)**

MBW entitles an investor to receive a certain predetermined sum from the issuer provided the investor holds the warrant till it matures and it is not converted into shares. To the investor the cost of doing so is not only the cash he loses, but also the interest foregone on that sum of money. Therefore in order to compensate, the companies must offer a higher premium than what they normally do.

- **Reset Warrants**

The pioneers of issuing such warrant are the Japanese companies. Reset warrants are suitable for those stock markets where there is tremendous volatility. If a share has not performed and its market price is below the exercise price after a couple of years then the exercise option is reset to level just above the current price; typically 2.5 percent above the prevailing price. However there is a downward revision, which is deeply pegged at 20 per cent. Besides the above derivatives, there are a number of instruments in the Euro bond market. Also there can be number of variations depending upon the variations in interest rates and/or maturity redemption period.

2.5 Major Bond Markets

The major capital markets where a company can raise funds through the issue of bonds are:

(1) US capital market

(2) Euro bond market

(3) Japanese bond market and

(4) Medium term notes market

1. US Capital Market

US Capital market is the largest and most liquid capital market in this world. This enables companies to borrow larger amount of funds at fixed interest rates with longer maturities. The U.S debt market is predominantly comprised of large insurance companies, pension funds, fund managers, and credit corporations. With the historical low interest rates in US as compared to Asian countries US institutional investors have become more receptive towards Asian issuers/emerging market economies in order to increase their yield on investment. There are three ways for an issuer company to raise funds in US capital market.

(a) Private placement market

(b) The rule 144-A market (Quasi Public Market) and

(c) The Vankee bond market (Public market).

2. Euro Bond Market

Euro bond market is another major source of foreign capita through the issue of debt instruments. Recent years have shown tremendous growth in the Euro bond market due to low interest rates which has attracted fixed income investors to look beyond traditional investment grade credit to lower quality credit in order to enhance yield.

3. Japanese Bond Market

There has been a significant growth in the Japanese Bond Market due to attractive interest rates on yens. Companies may consider issue of Samurai Bond in Japanese bond Market in order to diversify the investor's base.

However, growth of the Samurai market is limited due to appreciation of Yen as compared to other currencies.

4. Medium Term Notes Market

Medium Term Notes (MTNs) are debt instrument offered on a continuous basis in a broad range of maturity primarily through lead managers/managers. MTNs provide issuers with more flexibility then straight Euro bonds by allotting them to access subject to market demand, the international capital market on a continuous basis with multiple issues of varying face amounts and tenors.

2.6 Emerging Markets for Capital Investment

Of late emerging markets have become a buzzword among the international investors for reaping greatest potential rewards which would be impossible if they stayed put in their affluent hinterlands. The term emerging markets (EMs) is a collective reference to the stock markets of the developing nations. IFC (International Finance Corporation) has listed 35 countries as emerging markets. The first place in terms of GDP/Capita is occupied by Greece and India ranks poor 20th in this list of 20 countries. In terms of capitalization Mexico ranks first and 20th rank is secured by Zimbabwe. India occupies fifth position in capitalization. In term of listed companies India occupies the top most position. India has largest number of stock exchanges among the emerging markets. India has a share of 46 per cent of the total companies in the emerging markets and 21 per cent of the total global listed companies. A question, which overpowers a discerning mind, is why the international investors are looking towards emerging markets for investing their funds instead of established markets like US? Three reasons can be given to answer this question.

First, the average total return of EMs has outstripped those of developed markets. Investble total return index computed by the IFC which

measures the total return for each country based on those stock available to foreign investors shows that return on investment in IFC composite of EMs is 61.64 per cent higher than the return on investment in US market over the years. The institutional investors like the corporate pension funds; insurance companies and international mutual funds are looking towards investments in GMs to magnify their earnings.

Secondly the emerging markets provide excellent scope for diversification, as their correlation with the US and other developed markets is often exceptionally low. The EMs has low correlations not only with the developed markets, but also with each other. The fact that EMs (individually and as a group) has low correlations with the developed markets implies that there is an opportunity for diversification for the global investor. Thirdly as the EMs are generally inefficient markets, the opportunity of finding bargain stocks increase for the highly knowledgeable money managers.

It is comparatively easier to beat the markets in the EMs as compared to developed markets. In developed markets more arcane ones with mixed results have supplemented the traditional tools of fundamental and Technical Analysis. For example, there are computer programmes called Neutral Networks, which seek to identify underlying general patterns in share price movements to obtain clues about future prices. The evidence so for is inconclusive. The problem may be that such tools are quickly adopted by a large number of players so that they soon become history. In such a situation the investors are attracted by what they consider to be the relatively inefficient markets of developing countries. Perhaps their tools of analysis will yield good results there.

Emerging market equities had their best performing year ever in 1993 as measured by IFC benchmark indices. Even in the latter part of 1993 price a gains in many EMs were on an upswing while valuation measures were

higher, Added to this fall in the real interest rotes in US coupled with a strong growth in the developing world spurred on the demand for emerging market equities which pushed market beyond their fundamental values.

Considered on the risk from EMs are extremely risky when compared with developed markets. Apart from the obvious threats (political instability, insider trading and others), there are a number of possible reasons why these markets are extremely volatile. First they tend to be fairly concentrated; the larger stocks have a high proportion of the overall capitalization. As a result, there are fewer opportunities for diversification, and returns of these stocks dominate overall market return. Second, unlike the developed markets, which tend to have forces that affect diverse sectors of the economy differently, the EMs tend to have a strong market related force that affects all stocks within a market. This widespread effect tends to accelerate volatility.

It is true that emerging markets are extremely risky taken individually, but considered together EMs provide a good scope for diversification as these markets have low correlations not only with each other, but also with the developed markets. It is a generally accepted fact that investment in unrelated markets reduces the degree of risk.

2.7 Developments in Global Finance, Markets, and Institutions in the Asian Region

Three interrelated developments in global capital markets are:

- the sustained rise in gross capital flows relative to net flows;
- the increasing importance of securitized forms of capital flows; and
- the growing concentration of financial institutions and financial markets.

Taken together these trends may signal what some others have referred to as a ‘quiet opening’ of the capital account of the balance of payments, which is resulting in the development, strengthening and growing integration of domestic financial systems within the international financial

system. Finance is being rationalized across national borders, resulting in a breakdown in many countries in the distinction between onshore and offshore finance. It is particularly evident and most advanced in the wholesale side of the financial industry, and is becoming increasingly apparent in the retail side as well.

Taken together these three effects have contributed to a sharp rise in volatility – in both capital flows and asset prices – which may be characterized as periods of turbulence interspersed with periods of relative tranquility. Investor behaviour (the supply of international capital) is a critical reason behind the rise in volatility. These broad trends have some important implications for the ongoing development of capital markets and institutions, including those in Asia.

2.8 Key Trends in International Capital Markets

- ***The sharp rise in gross capital flows***

The evidence points to an acceleration of capital account opening in most regions of the world since the late 1980s. The effects of opening in the formal sense of liberalizing transaction taxes and regulatory and legal restrictions on capital movements have been augmented by the liberalization of domestic financial sectors and by technologically induced reductions in transaction costs. This opening has resulted in a sharp rise in gross capital movements relative to net capital movements.

- ***The rise in securitised forms of capital***

International capital flows have increasingly been in a securitised form. At a global level, direct intermediation through bonds and equities has begun to dominate more traditional forms of capital, such as syndicated bank lending and foreign direct investment.

The current trend to securitisation of capital flows to emerging markets possibly had its origins in the global debt crisis of the 1980s. At that

time private capital movements primarily involved syndicated bank credit. Following the extensive losses that many of the large international banks sustained during this period, there was a marked reluctance on their part to extend sovereign credit in the form of syndicated loans. Their espoused strategy has been to focus on so-called bankable business, in the form of trade credit or loans for specific commercial purposes with clearly identifiable cash flows and/or suitable collateral. The debt and debt-service reduction agreements at the end of the decade that resulted in the issuance of tradable, collateral-backed Brady bonds in exchange for outstanding loans provided the basis on which emerging market bonds have been erected. Impetus also came from the accelerating trend in mature markets toward nonbank forms of financial intermediation.

In the United States and Europe, the larger internationally active banks have sought to diversify into higher margin, fee-generating activities in an attempt to raise their return on equity. It is worth noting that this trend has been further stimulated recently by the rapid expansion of Euro-area securities markets, which has accelerated the shift by European banks into wholesale finance. As noted below, the expansion of Euro-securities markets has provided new opportunities for emerging market finance. While bank lending is still the dominant form of corporate finance in Europe, the direction of the trend seems clear enough. Similarly, in Japan, it is a reasonable conjecture that restructuring of the banking system will lead in time to a marked increase in directly intermediated finance.

- ***The consolidation of financial institutions***

The past few years have witnessed an acceleration of consolidation among financial institutions in mature markets and a similar trend is now gathering momentum in emerging market countries. Consolidation has been the subject of a detailed G-10 study of developments in mature markets

(including the G-10 countries, Australia and Spain). The main forces driving consolidation include: attempts to reap economies of scale and scope (a search for cost reductions driven by competitive pressures on margins and shareholder pressure for performance); improvements in information technology, as well as the onset of e-commerce and the spread of e-banking; and deregulation, particularly that which is encouraging the spread of universal banking. Most merger and acquisition activity during the past decade has involved the banking sector, and has resulted in the creation of large and complex financial institutions (LCFIs).

Consolidation is also affecting securities exchanges. In addition to the effect of technology on trading, the main causal factors are the liberalization of commissions, reduction in barriers to foreign entry, removal of antiquated trading rules and changes to governance structures. In many countries, the rapid growth and consolidation of private pension funds has been a major factor driving financial sector consolidation.

2.9 Important consequences due to the Prevailing Trends in International Capital Markets

- ***Volatility***

One of the main consequences of the intersection of these three trends has been periods of extreme turbulence in international capital flows, followed by periods of relative tranquility. This volatility is evident both in the flows themselves and in the prices (or spreads) at which they are transacted. Interestingly, volatility is concentrated in portfolio flows, both bond and equity, and is much less evident in more traditional forms of capital flows such as foreign direct investment and syndicated credit; although in the case of foreign direct investment, there is an important cyclical element connected to the growth cycle in mature economies

The market for emerging market dollar bonds has been a particularly unstable component of international portfolio capital flows, and has been characterized by repeated periods when access by emerging market borrowers has been effectively closed, followed by periods of robust issuance. Indeed, the on-off nature of access by emerging markets appears to have become a key characteristic of international financial markets. IMF analysts have identified 11 periods since 1993 when 'closure' has occurred, including several episodes during 2000–01 (IMF 2001a: 19–20). From mid-August and the most recent turbulence in Argentina (not to mention the events of September 11 until the end of November), borrowing spreads have widened for many countries and the market was effectively closed again.

The IMF analysis shows that these closures typically have been for relatively short periods, the longest to date having occurred when the Russian debt crisis and the problems at Long-Term Capital Management (LTCM) coincided in August/September 1998. That closure lasted for approximately three months. Market closures appear to coincide with periods when spreads widen sharply and volatility increases. Re-opening of markets seems to take place only after volatility dissipates.

Another volatility-related feature of the market for emerging market bonds has been the extent of contagion from one country to another, with events in one country often triggering a flight from other emerging markets without any clear economic rationale. Contagious movements were most notable during the Asian debt crisis in 1997. While still a concern in emerging markets, contagion during the past 12 months has been less of a factor than previously. As a final point, it is worth noting that volatility has not been confined to emerging market bonds but has also, and this is of relevance to the Asian region, affected securities markets.

Coincident with volatility in the NASDAQ market, there has been a sharp decline in issuance of shares in the technology, media, and telecommunications (TMT) sectors, with corporations having fallen back on syndicated credit as a source of finance. It is somewhat ironic that syndicated credit now appears to be acting as a stabilizing force in international capital markets, given its previous role in triggering the debt crisis of the 1980s when it was the dominant form of private capital flow.

- ***Emphasis on the supply of capital***

In seeking to explain the rise in volatility, it is necessary to discuss about the increase in gross capital flows relative to net flows. Capital flows have traditionally focused on the 'demand side' of emerging market financing by examining current account balances, which are equal to the net external financing needs of countries, and then seeking to identify ways in which these financing needs could be met and on what terms. However, this approach ignores trends in capital flows into and out of the major advanced economies, which are the source of most cross-border capital and the main reason why gross flows have risen so dramatically relative to net flows. These flows are typically in a securitized form and, as such, are susceptible to trading in active secondary markets. By one estimate, investors in the mature markets of Europe, the United States and Japan have been accumulating securities issued outside their own countries at the rate of about US$1 trillion a year (Smith 2000). This means that international capital flows are increasingly determined by global asset-allocation decisions made by globally active financial institutions in major industrialized countries. These institutions are becoming increasingly concentrated as a result of the global trend toward consolidation. Understanding capital movements increasingly requires an analysis and understanding of the underlying investor base.

A case in point relates to the on-off nature of the market for emerging market dollar denominated bonds. The dedicated investor base for emerging market securities has contracted in recent years, reflecting the closure of several large hedge funds, the orientation of other hedge funds toward mature market investments and reductions in the capital allocated to support the activities of the proprietary trading desks of some international investment banks. Moreover, the current investor base is dominated by 'crossover' investors; that is, investors who invest short-term and opportunistically in the asset class and whose benchmark portfolio typically has a zero weight on emerging market securities. The holdings of emerging market securities by a particular crossover investor are a small share of the investor's total portfolio and thus can be liquidated quickly without major impact on its overall value; however, the aggregate impact in the emerging debt market of crossover investors as a group reacting to a specific event, making an exogenous shift in risk appetite or rebalancing portfolios in response to losses or gains elsewhere, can be overwhelming. These developments suggest that, unless the dedicated investor base expands significantly, on-off market access is likely to be a regular feature of emerging market finance.

Other examples of the importance of the investor base, and the extent to which developments in mature financial markets impact on the issuance of emerging market securities, have arisen because of the creation of a pan-European debt market since the inception of the euro, and the growth of European pension funds. These events have resulted in the establishment of a market for euro-denominated emerging market debt, at both the retail and institutional level.

The effect has been to mitigate to a degree the access problems associated with the on-off nature of the dollar-denominated market. These markets (along with a market for yen-denominated issuance) are

demonstrably less volatile than the dollar market, and have tended to remain open when the dollar market has closed. Thus, they have become an alternative source of funds, with a more stable investor base that appears to be well worth the time and effort of emerging market countries to cultivate.

2.10 Implications for the Asian region

The consolidation occurring in the banking and financial sectors is a worldwide trend that has gathered momentum in recent years. Initially largely a banking sector phenomenon, consolidation has increasingly also affected the nonbank financial sector and has resulted in the establishment of large and complex financial institutions. In recent years, the trend has begun to gather pace in emerging market financial systems, including those in Asian countries. In addition to the main factors that are driving consolidation in mature markets are improvements in information technology, the progressive deregulation of the financial sector and competitive pressures that have come about as a result of reduced margins in traditional banking business the need to restructure banking systems in the wake of a financial crisis has been an additional factor in emerging markets. Some Asian financial crisis countries appear to be entering a second round of banking and financial sector restructuring where further consolidation and the formation of financial holding companies will play a major role.

A distinguishing feature of consolidation in emerging markets is that it has been a cross border phenomenon that has resulted in substantial foreign penetration of domestic financial systems. Indeed, colleagues in the IMF refer to a ‘staggering increase’ in foreign ownership and control of domestic banks in emerging markets, especially in Latin America and emerging Europe, but also to a lesser degree in Asia. Note, too, that foreign penetration can be

indirect and more subtle than the ownership/control connection. The recent triennial survey of foreign exchange and derivative markets coordinated by the Bank for International Settlements (BIS), for example, revealed that growing volumes traded in the Australian foreign exchange market have a foreign-induced component, with 65 per cent of transactions now occurring between resident dealers and overseas banks, up from 50 per cent in the preceding survey (RBA 2001).

As to the consequences for the Asian region, the trend to further consolidation seems likely to continue for the foreseeable future. In addition to those countries where banking systems are in need of further strengthening and restructuring, there is also a case for consolidation in the Hong Kong and Singapore banking systems, which are increasingly specializing in asset management and unit trusts/mutual funds with the aim of reaping economies of scale and scope.

As to the mature markets in the region, both Australia and Japan were participants in the G-10 study of consolidation and its conclusions presumably apply broadly to them. With the main causal forces still operative in these countries, it seems likely that further consolidation will be in order. For the region as a whole, just how much further foreign penetration will proceed will depend on whether countries are prepared to regard financial services as 'just another industry' that can be allowed to find the least costly, most robust way to provide its product. New Zealand may well be the prototype or limiting case, with foreign control rising to 100 per cent of the banking system. At the same, it is interesting to note that there are forces at play in New Zealand that may result in some rollback of foreign ownership and control.

- ***The premium on liquidity***

From the perspective of an investor, the appeal of securitized forms of investment rests in part on the liquidity of the investment, which depends on

the possibility of continuous valuation of the security and the ability to adjust positions quickly in secondary markets without undue impact on market price. Order-driven markets, such as stock exchanges, need to concentrate trading in order to optimize liquidity; dealer markets, which are the typical form of bond markets, require well-capitalized market-makers capable of position-taking in size to provide the necessary liquidity and depth. From the perspective of the issuer, deep and liquid markets are needed to optimize placing power and thereby minimize issuance costs and risks. As an increasing share of international capital movement takes a securitized form, the need increases for sizeable financial institutions that are prepared to dedicate a substantial capital base to the market-making function. Market-makers in turn need access to well-capitalized, highly liquid banks as a form of support to the financial infrastructure. To provide some idea of the importance and potential scale of needed market-making capacity, it is instructive to look as a benchmark at the market for internationally traded foreign exchange, which is probably the most liquid and deep market in the world. There, according to the just released BIS-coordinated triennial survey, fully 60 per cent of transactions are between dealers.

The problem for emerging markets that rely on securitised flows of capital, including those in the Asian region, is that the institutional capital required to support liquid secondary markets is not always available and, indeed, may be shrinking. In some instances, hedge funds have closed which, in the past, had been active players in emerging market instruments, while others have diverted their activities to mature markets. Proprietary trading desks in some major international investment banks have reduced the scale of their operations. Inadequate market-making capacity inevitably contributes to a further rise in volatility, which further reinforces the on-off nature of these markets. Not only does this increase the risk to countries of a reliance on

securitized forms of capital, but it also establishes the dynamics of a vicious circle by providing a motivation for existing market-makers to further reduce their exposure to market making.

- ***Intense competition between markets***

The past decade has seen a major change in the securities trading industry, driven partly by rapid technological innovation and the globalization of finance. One effect has been a significant decline in trading costs – which has reduced the costs of raising equity capital and has provided an incentive to shift issuance and trading activity to lower-cost centres. This process has put immense pressure on exchanges in emerging markets and smaller mature markets to consolidate liberalize access and deregulate brokerage commissions to maintain competitiveness. The need to concentrate trading activity in order to achieve the necessary depth and liquidity has only added to the intensity of competition. In addition to providing pressure to integrate exchanges within national markets, these forces also create an incentive for cross-border alliances among exchanges and the formation of regional markets. The effects of these forces have been particularly evident in Asian countries, where stock and derivative exchanges have merged and de - mutualised in Hong Kong, and in Singapore.

The change in governance structure through demutualisation has been seen as critical to the ability to respond to the challenges that rapid change in the industry entails. Plans to merge and/or demutualise have occurred or are in train in Malaysia, Korea and the Philippines. Related to the competition among exchanges, the brokerage industry in Asia faces strong pressure to liberalize commissions. For example, Singapore liberalized commissions in October 2000, and fixed commission rules have broken down in Korea. Malaysia is following a two-stage approach, to allow the industry time to

adapt to the change, while in Hong Kong, commissions are due to be liberalized this year.

Another effect of the intense competition has been the tendency for certain markets to specialize as a way of attracting sufficient business to achieve the scale of operations needed to build liquidity and reap cost advantages. Singapore, for example, has sought to implement a strategy of fostering the development of asset management activities. Australia has seen substantial growth in foreign exchange business in the past three years, in marked contrast to the general trend recorded in the BIS-coordinated triennial survey of a marked worldwide decline in daily turnover. The reason has been that a number of global players have focused their Asian time zone business in Australia. As a result, daily turnover in US$/third currency business has grown to the point where it is almost equal in volume to US$/A$ turnover. This growth has added substantial depth and vibrancy to the local financial community.

- ***Modernisation and convergence of regulatory frameworks***

Consolidation and the competition for financial business is leading to the adoption of new legislation in national markets to establish a 'competitively neutral' regulatory environment (e.g., the Financial Services Reform Bill, which came into effect in Australia in March 2002). But the process is driven also by the contestability of financial transactions among financial centres, which risk losing business when antiquated regulatory frameworks raise operation costs.

Convergence is also evident in the development of common legal forms for particular financial instruments that are traded in national markets (e.g., swaps), disclosure standards, and accounting standards. At the same time, the potential for systemic instability and contagion across national

boundaries creates an incentive to adopt best practices in regulatory frameworks.

The recognition of the importance of implementing best practices underlies the Financial Sector Assessment Program (FSAP) by the IMF and the World Bank, which seeks inter alia to assess countries' observance of key regulatory standards such as the Basel Core Principles for Effective Banking Supervision, the IOSCO (International Organisation of Securities Commissions) and the IAIS (International Association of Insurance Supervisors) principles for the securities and insurance industries, and the core principles for systemically important payments systems. Foreign penetration of domestic financial systems places a substantial premium on cooperation among national supervisors.

- ***The growing use of synthetic financial instruments***

It has long been recognized that securitization has brought with it the possibility to unbundled credit and market risks, price them efficiently, and distribute them to institutions and investors most equipped to deal with them.4 Such instruments can be used also as a means for hedging the volatility risk inherent in the modern international capital market. It is therefore important that countries seek to encourage the development and appropriate use of such instruments.

The recent BIS-coordinated triennial survey of foreign exchange turnover provides evidence on the extent to which the use of such instruments is growing worldwide. In contrast to the world-wide decline in foreign exchange market turnover, there has been a 50 per cent rise in derivatives trade in the three years since the survey was last conducted, all of this due to the growth in interest-rate-related products. The trend seems to be well established in Asia. In Australia, for example, the survey pointed to a tripling

in derivatives contracts since the last survey, suggesting rapid strides in the maturation of local capital markets.

In summary, the growth of local debt and equity markets in Asia has been an important step that can be further developed as a defense against high volatility in international capital flows. Somewhat paradoxically, perhaps, joining the trend by completing the development and integration of domestic capital markets may be the best defense against the negative consequences of the global integration of capital markets that is proceeding rapidly in other parts of the world.

2. 11 Role of India in the Global Scenario

Like other emerging markets, role of India in the global scenario has expanded far from being a mere supplier of commodities. Now funds are being brought into the country in anticipation of higher returns. This is a good news for the development of India because in the supply of commodities, the nation had to produce first and then to receive payment. On the other hand in the case of investment funds, the money comes in first and the returns have to be paid later. Higher expected returns, inefficiency of capital market and greater scope for diversification due to low correlations of Indian market with other emerging and developed markets, are the main reasons responsible for attraction of Indian to the global investors. Further the attraction of India is also a product of necessity. The shifting paradigm in current Indian economic thought has transferred the main role in the economic development of the nation from the Government to the private sector. Increasingly it will be the markets rather than the Government planners who will decide on critical issues like the allocation of capital. The virtual elimination of industrial licensing, the easing of restrictive provisions of the MRTP and FERA, the gradual dismantling of price controls on both products and equity markets have all given a strong boost to business enterprises. More business implies

more funding. Businesses are increasingly topping the capital markets to finance their expansions, modernizations, and new projects. To meet the insatisfiable thirst of business enterprises for funds Government has allowed them to raise funds in foreign capital markets. Some established companies have aggressively set out to tap foreign markets by issuing Foreign Currency Convertible Bonds (FCCBs) and equity shares (through the depository receipt mechanism).

Indian companies were first permitted to tap the Euro market in 1992. Since then a number of companies have raised capital in the Euro market through the issue of FCCBs and GDRs. Companies have been drown overseas because the volumes that can be raised are higher. The issuance costs are at 2 to 3 percent being substantially lower than comparable rupee issues. Interest rates in overseas markets are lower as compared to Indian domestic standards

India ranks high among the emerging markets in respect of attraction for capital, as world markets are getting increasingly turbulent, India is still fortunately free from the cascading effects of butterfly in Mexico or an earthquake in Argentina. Also foreign investors need not be worry about over-night seismic policy changes brought therein, as it happened in the case of Mexico, devaluation of local currency, paucity of foreign exchange reserves and serious trade deficit have created a flight of capital from what appears to be the most promising emerging market of the decade. In spite of the attractiveness of Indian capital market for foreign investment, the inflow of foreign capital has not been satisfactory.

To fortify its chances of attracting foreign funds, both in the portfolio and the direct formats, India should make active efforts to improve the functioning of its financial markets that is allocating capital more efficiently, focus on core financial themes such as interest liberalization (which is done to

a large extent), smaller government role in credit allocation, and improvement in the role of banks as financial intermediaries. India has to focus more inwards than outwards. Problems regarding custodial services, clearances, settlements and taxation etc engage most attention. Many Fls did not enter Indian market due to custodial services. Foreign banks custodians alone cannot handle Fls business.

The sole and purchase of securities should be allowed in large marketable lots to reduce the transactional load. The transfer of shares take an average two months and some companies even take six months despite reminders; there is a lack of transparency in the transactions which can justify the genuineness of the quoted prices. SEBI should be given legal power to take drastic action against the erring companies.

Consequent upon efforts towards globalization of business and trade in the recent past capital markets of different countries are turning global. Emerging markets consisting of developing economies have become attraction among the international investors for increasing return on their investment. This is because the developed markets have reached a level of saturated growth. Hence the attractiveness of the emerging markets, since they offer higher return, reflect faster growth rates and show the propensity to absorb the surplus technology and the funds of the investors of developed countries.

To ensure that India does not lose out in the race of capital attraction, there is a need for making radical changes in the functioning of financial markets and government regulations, Indian companies desiring to enter the foreign capital markets most strengthen their information base and make-appropriate modifications than their accounting systems. This is required to fulfill the information needs of foreign investors. Those investors require

information about past performance and future prospects of investor companies for making investment decisions.

Review questions:

1. Discus about 'Globalization of Capital Markets 'and 'Financing Mix' of Firms.
2. Explain the risks of financing internationally.
3. What are the types of Bonds?
4. What are the major capital markets in this world? Explain.
5. Discuss in detail the developments in Global Finance, Markets, and Institutions in the Asian Region
6. Explain the Key Trends in International Capital Markets
7. Explain in detail important consequences due to the Prevailing Trends in International Capital Markets

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Lesson - 3

The International Economic System and Globalization

Objectives of the Lesson:

After studying this unit you should be able to:

- Know the Different Facets of Globalization and their Manifestations
- Understand the Problems and Challenges of Globalization
- Explain the relationship between Investment, Transfer of Technology and Global Business
- Know the Interfacing of the National and International Orders.

Structure of the Lesson:

3.0 Introduction

The prevailing international economic arrangements are an amalgam of facts, rules, and modalities created one at a time rather than a holistic system of cohesive design. The monetary part is a transformation of the old Bretton Woods system, which came into actual collapse in August 1971, but was rescued by successive fixes from 1972 onwards. It remains based on the US dollar, and centered around the IMF whose mission and philosophy have evolved at a politically controlled pace. The monetary and financial systems are covered institutionally by the IMF in monetary matters and by the World Bank in finance matters. Moreover, the World Bank, while an important source of development funds for the poor countries and an instrument for bringing their policies under the scrutiny of the dominant members, shares its role, *de facto*, with the private sector, which is, *de jure*, not a part of the official system and is in the business of profit making.

The trade part of these arrangements, issuing essentially from the GATT, was redesigned in its scope and its law by the WTO agreement. However, it has maintained numerous features of the old GATT; it is still based on the exercise of full sovereignty in granting or not granting concessions; it remains essentially one based on liberal trade access, on non-discrimination in treatment via the application of the most favoured nation clause; and it is now based on equal treatment of countries regardless of their trading capacities. There is yet no sub system for dealing directly and explicitly with investments and the transfer of technology.

3.1 The Different Facets of Globalization and their Manifestations

Globalization is manifested in four interrelated developments:

1. The increase in the international exchange of goods and services, and despite all the restrictions therein, the movements of human resources;
2. The internationalization of production and real investments;
3. The increased integration of financial markets;
4. The relative high degree of policy convergence among countries.

The statistical evidence on these developments is truly impressive. In the trade area, the ratio of international trade to the GDP of practically all countries has more than doubled over the last two decades. Trade has substantially outpaced the growth of the GDP in all but very few years over the past twenty- five years. A major new phenomenon is the size of services in total trade, in particular financial services.

World trade grew at a real per annum rate of 5.5% in 1985-1994. In the following decade, 1995-2004, it registered an annual real growth of 6%3. This is well above the average growth of the GDP in the same periods. For individual countries, even the large and relatively closed ones, the trend is the same .For example, in the US; trade went from a mere 9 % of the US`GDP in 1970 to more than 23 % in 2003. In the small European countries and most of

the small developing countries, trade has gone up from levels in the range of 40-50% percent of the GDP in 1970 to levels in the range of 80 to 90 percent in 2003. The increased importance of trade relative to the GDP, is particularly striking in the developing countries. The twenty developing countries classified by an UNCTAD paper as the most dynamic, have increased their share in total world exports from 9.5% in 1980 to 24.3 % in 1998; this is all the more impressive in view of the large growth of exports.

In the exchange of human resources, the movement of labour across international borders, legally or illegally, together with the growth of immigration from poor to rich countries has reached such levels that immigration has become an explosive political issue in all the recent political campaigns of Western Europe. Even in the US, a traditional country of immigration, the increased scale of economic immigration is beginning to be a standard feature of political campaigns and is heavily exploited by politicians in quest of electoral gains.

In investment cum production area, the internationalization of production is currently manifest in the phenomenal increase of foreign Direct Investment (FDI) in the US, in Europe, and in some twenty or so developing countries, led by China. For example, China has experienced investment inflows reaching 7.9 percent of the GDP in 1993 and 8.1 in 2003. This has taken place against the backdrop of real annual growth of China's GDP of 8-9 percent. In some smaller economies, like Malaysia, these inflows had reached a high of 14.6 percent of the GDP in1993. After dipping in 1997and 1998, net inflows bounced back, but have not resumed a steady pace of growth after 2001. There is also a growing subcontracting of production and a spreading of production facilities by transnational firms.

In the finance arena, businesses have increased their recourse to international sources as testified by the increased volume of floatation of

foreign bond; the increased issuance of international bonds in the Euro markets, and the increased international lending in direct and indirect forms. Moreover, big companies have substantially increased their stock listings on the various public exchanges.

The financial institutions, led by banks, have become truly international not only in doing international financing like their predecessors have done since the nineteenth century, but in addition, by locating in various countries through some times outright establishment or acquisition of local banks. On both the assets and liability sides of their balance sheets, banking is now international: loans and deposits are denominated in different currencies originating from and going to different points of the globe.

Just as telling perhaps but more a typical, is the increased convergence of economic policies of governments. This is the result of several factors: the complete triumph of the liberal model has narrowed the scope of choice in economic policies. All countries want to be seen pursuing the right policy model. The second factor is the emulate- thy- competitor syndrome; countries match the concessions and benefits given by their competitors to foreign investors and trans- national firms in order not to suffer a comparative disadvantage. The third reason is the relative short time the world has had to fashion policies based on some variation on the orthodox liberal model. The policy convergence however, is stronger among smaller economies than the big ones, because the big economies quite frequently pursue policies dictated by short term expediencies.

The spotty results of the government controlled model, already clear in the 1980`s, and the collapse of the socialist economies in 1989, have brought about an almost universal acceptance of liberal and open market organization and a semi consensus on economic policies. A rather extreme version emerged in the so called “Washington Consensus”. This was so called after

the meeting in Washington of economists with views concordant with those of the IMF and the World Bank as to what model of economic policy to follow. Not withstanding the challenge to this consensus by various other economists, there is a wide convergence of views today on what are bad policies and a spectrum of accord on what are good ones.

3.2 The Problems and Challenges of Globalization:

If globalization is a non- stoppable train, as many argue, it seems to be a rather selective one in admitting passengers aboard. Economies possessive of skilled and educated manpower and endowed with well developed production and marketing capacities can get on board to reap significant benefits if they have developed financial systems and access to technology. It is a system where the benefits accrue only to the capable and prepared. Those who do not have the products and services to sell or the means to market them will assuredly be left in the station. The same is also true for individuals who have not invested in their human capital and in obtaining the requisite skills for global jobs. Thus, we are faced with the phenomenon of marginalization of people, of firms and of countries; the global system confers a large rent differential upon the participants and applies exclusion to the non- participants. Unless the means to spread around wealth and prosperity are built into globalization, it will become the domain of the already established, of the capable and skilled. Consequently, enabling capacity -building in trade technology and human- capital is an important issue in the debate on globalization. Unlike export-orientation, globalization involves the entire resource base and know-how of the economic agents. Thus, participatory capacity is an important issue.

Faced with the reality of the requirements of the global economy, Nation states confront a host of problems: they have to accept the relative loss of sovereign control and the erosion of the fiscal base if they want to keep up

with competitors who grant tax holidays and wave off social charges. At the same time, they are forced to increase their expenditure on infrastructure and education to enter into or keep their presence in the global system. To all that must be added the system consequence of accepting global openness: national governments must extend safety nets for taking care of the casualties of globalization, be it firms, banks or workers, if they are to maintain the social compact and preserve domestic civil peace. These are contradictory demands on national governments. Another problem concerns the timing and location of the short run benefits and losses in the trade sector. While the countries with higher wages and more exigent environmental standards stand to lose jobs as business shifts some branches of industry to cheaper locations abroad, higher paying jobs have not followed the lost ones in the short run. The theory of international trade asserts that higher value added jobs would replace the lost ones. But the theory does not have a clear time- line for the working out of comparative advantage; it has always assumed that the replacement technology is available and the costs of conversion, in particular labour retraining, are insignificant. Obviously, this is not so when replacement technologies are the private property of businesses, which no longer have national allegiance and will use the technology and locate the jobs where they make the highest profits. In today's world, the major concern of business is the overall global bottom line and the increase in the wealth of the stock-holders. The empirical evidence on industry replacement is hardly clear- cut in the short run. In the US, the evidence over 1992-2004 shows that the number of jobs lost has been less than the number of newly created jobs10. This is true over a decade but not necessarily true for a particular year. In the short run, job replacement seems to carry migration born for some time by the displaced workers. There are also costly structural impediments to the transition to new jobs. The risk of creating significant constituencies in

democratic countries opposed to globalization, as witnessed in Genoa and Seattle, is becoming quite high. Even when international firms own or have access to new technology; the relative cost difference between different locations might tempt them to relocate some jobs abroad. There is evidence on that in the low white- collar jobs such as soft- wear and high information skill jobs.

India has invested in education and developed a large and surplus stock of skilled manpower, have succeeded in attracting lost jobs form global businesses on account of their low wages. Traditionally, wage levels and productivity gains have moved together. However, with openness it is possible that higher productivity might be associated with lower wages for skilled unemployed workers in a different country. We have therefore a break in the observed historical association between wages and productivity across countries with different cost of living. The historical pattern of investment in education is now playing a large role in the working out of the law of comparative advantage. Second, the new jobs generated in the US have an average hourly pay lower than the lost ones. In fact, quite many of the new jobs are in services with lower productivity and lower wage rates than lost manufacturing jobs; for example the average hourly wage in some of the fastest growing service jobs, the food industry, is $10.64 with a median of $8.98 per hour, as compared to $18.07 mean and $ 17.10 median hourly wages for the lost jobs in production, construction and extraction occupations.

Finally, the asymmetric distribution of benefits across countries is breeding theories about disguised and new forms of economic domination under globalization. Even though such views are often not empirically demonstrated, nonetheless, they are voiced by important segments in open societies, which have become permanent and non-discriminating opponents of WTO and globalization.

3.3 Investment, Transfer of Technology and Global Business

Trans-national investment in its forms, portfolio and Foreign Direct Investment (FDI), has become a striking feature of globalization. Net external worldwide financing has gone up from less than $10 billion in the early 1970`s to a high of $243 billion in 1996. It receded in 2001 from these historical heights, but reached an estimated $148 in 2003 and a forecast of $149 billion in 2004.14 Portfolio investment, foreign direct investment, and external borrowing, all exhibit the same trend. These impressive figures mask to a certain extent the scale of the growth of gross inflows in the net receiving countries because the data are in aggregate net terms. Despite that, the figures remain quite impressive. In some developing countries such as China, Tran's border investments, largely emanating from overseas Chinese investors, have accounted for 10 to 12 percent of fixed capital formation. Consequently, they rendered possible the sustained high- growth of the country over the last three decades. With few exceptions in closed economies, all countries developed and developing now welcome such investments, especially in the form of FDI. The competition for foreign investment is keen enough that countries resort to competitive concessions and more and more uniformity in macroeconomic policies to attract the investors. The potential benefits of foreign investment as a supplement to domestic savings, as a source of technology transfer in the case of FDI and as a more efficient use of savings world wide, are undeniable. But, such investments raise questions for the global system. In the case of portfolio investment, the Asian crisis has graphically shown how the wave can turn around, and cause panic flights of capital engendering balance of payments difficulties and currency crisis in the host countries.

Another asymmetry is implicit in the agreement on the TRIPS, negotiated in the WTO package. It protects the property rights of the owners

but does not fully address the twin issues of the impact of the protections on the transfer of technology, to developing countries, and the need to make possible and feasible, the acquisition of drugs indispensable for public health. Quite naturally, the incidence of R&D favours the rich countries with their established capacity to develop and apply new technology and to use qualified cadres of educated people from all over the world. Since all of the new technology is essentially in private business hands, the TRIPS confirm the exclusion principle of the market place internationally. The AIDS crisis in Africa and the recent disputes between governments and drug companies protected by the certificates of intellectual property rights are examples in point. There is thus an undeniable need to bring the private holders of copy right, mostly big Trans- Nationals, into some system of internationally controlled exploitation where, as a *quid pro quo* for copy -right protection, they adhere to an internationally agreed code of behavior.

Finally, the WTO system opens up the possibility of enmeshing the trade system into the investment and other subsystems in the application of trade law. Developing countries have long signaled their opposition to applying trade sanctions in disputes involving non- trade issues. By invoking the WTO dispute- settlement mechanisms in non- trade disputes, the strong trading countries can exploit their trade dissuasion power (the trade capacity and the associated value of trade concessions) all across the issues; and that would create unexpected problems for those who negotiated the WTO law in good faith within the strict confines of the trading system.

3.4 The Interfacing of the National and International Orders

The establishment of the WTO revived sharply the old disputes of where the demarcation between the national and international domains lies and how they should interface. The IMF provided an early example of this tension, but the WTO has escalated the debate. The rules and obligations of

the trade organization, and indeed the new international trade law, on the reasoning that some domestic policies have international consequences, step into domains of policy hereto squarely in the national domains. Prime examples are to be found in industrial policies and agricultural subsidies, both of which violate the new WTO rules. To be sure, the essential purpose of industrial policies is to give extra impulse to economic development, and of agricultural policies to impart balance to the environment and to preserve certain modes of living and traditions. However, both policies are found contrary to the international order because they violate the international principle of level playing field. In many countries, wide segments of society do not accept this encroachment upon the national sphere and place greater value on the accomplishment of the above-mentioned goals in the national domains than on the rules and efficacy of the international system. Moreover, a certain historical duplicity is assessed upon the advocates of liberal trade in that many of them, e.g. Japan, the US, European countries and South Korea, to cite some examples, have in the past practiced and benefited from these same currently forbidden policies.

In the case of the IMF, certain conditionality targets such as ceilings on debt and money supply and the size of public budget are seen to be contrary to the sovereign right of governance and the self- determination of domestic affaires. Governments accept them more by the pressures of need than by any conviction about their merits. The same is even more egregious in the IMF surveillance and conditionality provisions regarding countries that need Fund resources. For example, the recent Fund packages for Turkey and for Argentina, get into budgets, pension reforms, privatizations, financial domestic regulations and social security, areas that countries not in need for IMF support would strictly keep under their sovereign prerogatives. It is clear that there are no ready or agreed criteria as to where the demarcation lines

should be, since what might be required by international concerns is sometimes of a predominantly domestic nature and what might be done domestically could have large international implications. Nor could one make an easy trade- off between the national interest and those of the international order because the national benefits are felt directly while the international ones are often felt indirectly. This evaluation of globalization is not accepted by every one. There are some who argue that, in some areas like agriculture, poor countries would stand to reap great benefits from globalization. However, the research on the implications of removing the European agricultural subsidies CAP shows that not all poor countries stand to benefit from it. The example of Bangladesh in textile is brought up to bolster this view for industrial sectors.

Review Questions:

1. Discuss the different Facets of Globalization and their Manifestations
2. Explain in brief the problems and Challenges of Globalization
3. Explain the relationship between Investment, Transfer of Technology, and Global Business

References:

1.MauricS'"Dlevi,'International Financial Management., McGraw-Hill.

2. C. Jeevanandham, EXCHANGE RATE ARITHMETIC, Sultan Chand.

Lesson - 4

The International Monetary and Financial Systems

1.0 Introduction

It can be argued that the international monetary and financial systems are the main driving force of globalization. It is evident that the free movement of capital affecting exchange rates and in the process, unsettling financial conditions and economic policies, leads to boom and bust conditions and currency gyrations in most economies. It is also evident that in a global economy, the variation of economic policies and financial conditions in the major countries spill over into the small countries and overwhelm their small economies. Yet, the prevailing international monetary system dates back some forty years and was designed for the conditions of the world economy prior to the arrival of globalization.

The outstanding features of the two organizations established at Bretton Woods in 1944, namely, the IMF and the IBRD, and their underlying systems, can be succinctly described.

The International Monetary System (IMS) was to have no resources of its own, contrary to the original proposals of Keynes and the British Treasury. It was instead based on national quotas negotiated with members upon entry, which constitute the key to resource contributions and to decision -making as well as to access to the financial facilities. The IMF was to be essentially concerned with the area of current account adjustment and current account flows, though article IV of the Articles of Agreement, provided that one of its main purposes was establishing a framework for capital exchange among members. The exchange rate system was to be initially fixed, but eventually adjustable. The US dollar was put at the centre of the international reserve system, to be later on complemented by other key currencies.

The IBRD evolved from a post war reconstruction agency for post - war Europe, as the name says, to a development funding institution called the World Bank, essentially concerned with developing countries. Interestingly, it was not endowed with much authority in the governance of the global financial system. Once again, the quota system was enshrined at the centre of its resources, its operations, and its governance.

In 1972-1974, a window of opportunity opened up to revamp the system in order to bring it up to date and render it consistent with the evolution of capital markets, the exchange rate experience, the development issues and the evolution of international trade. This however, failed again to secure consensus agreement, with the United States and Germany objecting to different sets of recommendations made by the Committee of Twenty (C.20).

The reform issue was subsequently put on the back burner for more than a decade. The system has had two amendments to the Articles of Agreements: to create the SDRs as the system currency and unit of account in 1968 and to legalize *ex post facto* floating in 1978. In the wake of the Latin American and the Asian crises of 1997, many authorities, and even some states, called for a new architecture of the system more suitable to the global economic conditions. Many worthwhile ideas have been put forward since 1972, and particularly after 1997. However, despite all that has been said about the inadequacy of the old system under the new global conditions, there has been no official agreement on substantial reforms.

4.1 The outstanding issues in the International Monetary and Financial Systems

The outstanding issues in the International Monetary and Financial Systems can be listed under the following headings:

A- The Governance and Regulation of the Capital and Monetary Flows:

B- The Management of Financial Crisis and the Function of the Bank of Last Resort.

C- The Foreign Exchange System

D- The Reform of the IMF

4.1.1 The Governance and Regulation of Financial Flows

The Breton Woods system provided no governance for international financial flows. Although Keynes was quite keen on the topic, the other conferees did not seem in 1944 to be much concerned about it. However, the achievement of capital account convertibility in the advanced countries as of 1959 (some four years after realizing current account equilibrium) and the subsequent development of capital markets in the 60`s, 70`s and 80`s, propelled this issue to the fore. In the wake of the Asian crisis in 1997, and the demonstrated globalization of financial markets, it could no longer be ignored.

The Articles of Agreements of the IMF contained disparate references to financial flows in Articles IV and VI. As indicated above, Article IV made the free exchange of finance among member states a fundamental objective of the IMF. Article VI provides permissibility of capital controls as long as they do not impede or restrict payments made for the current account transactions (the balance of trade and unilateral transfers). It also disallows the use of the resources of the fund to support large capital outflows.

The concern with the growth of financial instability impelled the G.7 (the group of seven major industrial countries) in February 1999 to establish the "Financial Stability Forum" with the aim of promoting international financial stability through improved exchange of information, cooperation with respect to financial supervision and surveillance, and streamlining standards and norms in the various participant countries. Naturally, this work cannot be confined to financial flows and the financial institutions, as it has

direct implications with respect to macroeconomic policies, the various standards of the financial system and its judicial framework.

In each of the various areas, a key standard was established with a lead institution responsible for developing the necessary codes, rules, norms, and standards. Consequently, the BIS has over the last decade been the forum in which officials from the participating countries and international organizations, without the presence of private sector agents, have concluded numerous agreements aiming at establishing cooperative modalities for collecting systematically information on capital and monetary flows and disseminating them to members and the public. The forum has reached numerous agreements on codes of behaviour such as the code of "Good Practices on Transparency in Monetary and Financial Policies", and the same for transparency in fiscal policy. It reached agreements on financial regulation and supervision such as "The Core Principles of Effective Banking Supervision" and those of security and insurance. It also agreed on regulation standards for insolvency, for corporate governance, for auditing and accounting and principles to deal with money -laundering. It also agreed to rules and procedures for the treatment of important financial concepts such as risk and exposure as well as setting up modalities of cooperation among officials of member states. An important part of what was achieved is the collection of data and the establishment of a shared data- base.

Unfortunately, the private sector was not involved directly in devising the new rules and principles and not asked to share any responsibilities. Furthermore, no modalities were agreed for securing its continuous involvement in financial governance, let alone setting up a non- voluntary code of investors` behavior.

All of this work, with all its due importance, amounted in effect to organizing in the source countries the supervision of their institutions and

setting up financial regulations and behavior standards for their institutions. Naturally, global financial governance involves conduct in crises, obligations on the source authorities as well as the recipient country authorities and above all, setting up proper models of conduct and codes of standards for private investors. But this was not to be, as the private sector participation remained strictly voluntary.

As noted earlier, the increased globalization of the world economy and the evolved integration of financial markets have resulted in enormous increase in cross border financial flows, with a concomitant increase in financial instability and frequent eruptions of financial and currency crises. No doubt the purpose of the new codes and standards is to increase financial stability and prevent, or at least, forewarn of impending crises.

In this context, several other proposals have been put forward to set up a system authority to carry out and enforce financial governance since the 1980`s. Some proposals suggest the creation of a world-wide supervisory and regulatory authority, the "World Financial Authority", to regulate and supervise all institutions and markets. Another variant more concerned with system issues and policies, developed proposals to establish a super agency over all the relevant international organizations to be responsible for the whole system: its policies, regulations, supervision, and crisis management.

All these proposals share the aim of establishing a global authority with a global perspective and enforceable authority to deal with the application of regulations, codes of behaviour, and methods of controls and rules of functioning on radically different basis than the piece meal, patchy approach of the present institutions. It is argued that the globalization of the world economy now calls for such an approach.

Another problem concerns the treatment of the private sector. Since private investors and speculators in the source countries are responsible for the

bulk of the financial flows, the voluntary character of the application of the established rules and codes to them stands in stark contrast to the summons to obey with consequent sanctions addressed to the recipient and their private concerns. A code of behavior for investors would be an enormous development. However, there are several objections to such a binding code. The first argues that it is exceedingly difficult to enforce it. The second is an efficiency argument about the distortion of allocation of international investment funds in the case of involuntary controls. The third concerns the deterrence to capital movements it might bring about, in particular, inflows to the poorer countries. The fourth is the desirability of avoiding bureaucratic decision- making and conflict of jurisdictions in case of crisis. The counter arguments are familiar from the work of the BIS and the literature on capital controls and the Tobin tax. Briefly, it is argued that feasibility is an open empirical question; that the efficiency argument assumes that a code -free system is optimal and is already in place and that the fear of bureaucratic conflicts is exaggerated. On balance, a universal code applied by all and enforced by an impartial international authority, such as the IMF, should be feasible.

4.1.2 The Management of Financial Crises: the Bank of Last Resort

Without a reserve system with a base in the Fund, any arrangement will ultimately depend on the political decisions of the dominant Fund members in accepting or not to fulfil this function. In the event, this function is exercised on case-by-case basis. In other words, it is not an established and regular system function. And it will not be a system function until, and perhaps unless, the IMF has the capacity, like any national monetary authority, to initiate action on its own with its own resources as the custodian of the international monetary and financial systems. For this reason, the first amendment to the Articles of Agreement in 1968, introduced the SDRs as the

base of the system. However, after much improvement in their characteristics and much extension in their use within the Fund, the SDRs have remained a mere 2% fraction of international reserves. The last time one heard of the SDRs was in 1994, when M. Camdesue, the then Managing Director of the Fund, proposed a third issue of the SDRs, destined primarily to the newly joined Eastern European countries. That proposal was scuttled by the developing countries who objected to the preferential treatment accorded to the new members. Politically speaking, the issue remains on the back burner and for the time being, there seems to be no advocates.

From inception, the IMF was created without resources of its own. Even before Bretton Woods, the vision of Keynes of an autonomously financed Union with flexible and discretionary resource base was abandoned in view of the opposition of the US. In its place, the US concept, articulated by Under Secretary Harry Dexter White, was to enshrine an institution based on a resource pool contributed and controlled by the countries with majority quotas. Thus, the new global conditions in financial and currency markets have thrust the institution into areas for which it has no adequate resource base independent of the political decisions of its major members.

In recent years, several proposals have been formulated to deal with this lacuna, the most ambitious of which is the proposal of the Meltzer Commission set up by the US Congress. There are a number of issues to be pointed out in this context, some political, some institutional and some technical. The lender of last resort role requires not only resources, but as well enforceable control on all countries.

The financial crises in both Asia and Latin America have some common features and similar sequences. They were predominantly crises in the financial system. In the majority of cases in Asia, there was no macroeconomic policy mismanagement signaled by the Fund in its prior

surveillance consultations with the members. Typically, there was a mal-functioning domestic financial system interacting with the typical behavior of the open international financial system. Usually, the start is ignited by banks carrying on their books a great deal of large assets that are non –performing. This leads in short order to failure of the banks to cope with servicing liabilities denominated in foreign exchange. Swiftly, a currency crisis explodes and the balance sheets of the banks and other institutions suffer severe deterioration in their domestic currency net worth. The swift and simultaneous reaction of creditors to these developments ushers in a country balance of payments crisis and requires usually severe adjustment. The crisis soon propagates into all sectors of the economy and spills over into other countries by, *inter alia,* altering the risk perception of international investors. The international official system then becomes involved to stem possible systemic risk. As a result, rescue packages would be negotiated with the stricken countries. These seem to have some important common features.

Dramatic increases in interest rates, damaging to the macroeconomic performance in the first place, increase greatly the interest rate risk of debt and other fixed- income securities and inflicts large capital losses on the balance sheet of banks and other financial institutions of the debtors. The hiking of interest rates inflicts a net capital loss on the asset side. The result is severe deterioration in banks balance sheet that might wipe out their net worth.

This problem has recently attracted a good deal of attention. For example, Barry Eichengreen of Berkley has just published a proposal to float bonds denominated in a synthetic unit of account based on a basket of developing country currencies for choosy investors unwilling to invest except in bonds or securities denominated in key currencies. The effective exchange rate of such bonds is more stable than individual currencies. These bonds would further entice the creditor banks to carry them for reducing their

exposure to country risk. He calculated that the increased premiums to be paid would be a small fraction of the cost of the Asian crises.

4.1.3 The Foreign Exchange System

The foreign exchange system used to be one of two major topics of discussion regarding the IMS in the 1960`s- the other was the international reserve system. These discussions emphasized the choice of regimes: fixed or floating. After the break down of the old Bretton Woods system of fixed but flexible rates, in August 1971, there was no official willingness to suggest radical changes in the prevailing system The first Smithsonian agreement of December 1971, amounted to tinkering with the old parities, while the second Smithsonian in1972, was a surrender to reality, as major currencies started floating against each other in March 1973. In 1978, the agreement embodied in the second amendment to the Articles of Agreement of Jamaica, aimed *ex post facto* at legalizing the *status quo*. The revision of article IV on surveillance, laid such vague guidelines as to amount to generalities. There was no statement of obligations, no standards to judge misalignments and no authority to enforce action on countries not in need for IMF resources. It was left to macroeconomic policies to carry the burden of arriving at orderly conditions.

The instability of real exchange rates, defined by any statistical measure of volatility, has increased under floating, thereby spilling over into developing countries, and in the event, unsettling their macroeconomic and financial conditions. The IMF estimates that more than half of the volatility of developing country exchange rates is explained by the volatility of the real exchange rates of the G.3 countries, i.e., the dollar, the yen, and the Euro. It also holds that" the greater volatility of real exchange rates has been associated with greater real effective exchange rates misalignment"

During the past thirty years, the major currency countries undertook only two coordinated interventions following the Plaza Accord of 1985, and the Louvre Accord of 1987. In all other instances, where volatility aroused concerns, the major countries refused to intervene on the argument that intervention does not resolve the fundamental problems and that the markets are better at deciding the parities. This is an argument that rejects dealing with the manifestations of the symptoms but says nothing about how and when it will deal with the problem.

In 2003, almost half of the emerging market economies used an intermediate peg system, i.e., one of pegged but adjustable rates. This is a decline from the level of more than two thirds in 1991, according to the former chief economist of the Fund. Simultaneously, the proportion of countries using a hard peg (a fixed peg with narrow limits), or free- floating regimes has risen to 58%. It is not difficult to see the reason for this shift: the floating of major currencies unsettles the financial conditions of the small economies; it creates boom and bust gyrations and overshooting of their exchange rates.

The proposals of reform in this area are a market -basket variety of currency bands and intervention limits around them together with guidelines of misalignment, such as price movements, and quantitative triggers of action.

Several policy instruments can be used to track these rates. Among such instruments are: sterilized intervention- where assets are not perfect substitutes, temporary capital controls and in the longer term, interest rates, and monetary policy. Naturally, an important requirement is to have an anchor either in the form of exchange rate or another quantitative policy anchor.

4.1.4 The Reform of the IMF

There are three main issues in this area: the governance of the IMF, the surveillance and conditionality and the reserve system together with the function of the bank of last resort. This lesson has already dealt with the last topic above.

a. The Governance of the IMF

The Fund governance has been a contentious issue between the developing and developed countries since the mid of 1950`s. The familiar argument of the former is that the quota system is not fair as a key for decision- making and access to resources. The response of the latter is that it is only normal and fair that each country share in decision-making be commensurate with its contribution to the Fund resources.

The economic system is one in which states are not equal, some are certainly more economically important than others even though they all have "equal" political sovereignty. This holds in fact when it comes to the contribution of member states to the system. It also holds in economic theory in analyzing big economy influence over international adjustment. The economic conditions and policies of the major countries fundamentally affect the international economy. Similarly, the effects of global economic changes are more important for the big economies. It is uncontroversial to assert that a decision by the IMF requires more the assent and active cooperation of the large economy countries than the small ones. Economic analysis explicitly distinguishes between large and small economies when it comes to the international influence of their macroeconomic policies.

The developing countries have created two institutional modalities to strengthen their influence on the IMF: the Group of Twenty Four and the Development Committee. The G.24 was established more than three decades ago by the Group of Seventy Seven, which founded UNCTAD. It has had a good working program supported by UNCTAD and other international

secretariats as well as by the service of independent experts of distinction. It is fair to say that it has had beneficial influence on the IMF and has, to certain extent, served the interests of developing countries.

b. The Surveillance Function and Conditionality

Conditionality was developed by the IMF in the early 1950`s to ensure the paying back of members purchases, thereby preserving the revolving character of its resources. Some time later, in the 1960`s and 1970`s, a paternalistic aspect to conditionality came into evidence as the IMF meant to guide the countries under its adjustment programs towards what it regarded the *correct path* to equilibrium using th*e correct model40* In the 1980`s as the debt crisis erupted in Mexico and later on in other indebted countries, conditionality expanded beyond current account problems to cover many aspects of financial accounts and to bear on disparate aspects of domestic economic policies. The debt crisis brought domestic financial systems and policies under the purview of conditionality. At the behest of the dominant members, policy reform emerged into the forefront at the close of the eighties and beginning of the nineties. The Fund acting in coordination with the World Bank began to lay restrictions and performance clauses on macro and micro economic policies and the two institutions divided the enforcement work among them selves. By the 1990`s, the avowed intent and priority of conditionality was placed on policy and structural reforms and new facilities were created to finance such programs.

Review Questions:

1. Outline in detail the outstanding issues in the International Monetary and Financial Systems
2. Explain the Governance and Regulation of Financial Flows
3. Discuss the Reform of the IMF

References:

1.MauricS"'Dlevi,'International Financial Management., McGraw-Hill.
2. C. Jeevanandham, EXCHANGE RATE ARITHMETIC, Sultan Chand.

Lesson - 5

Global Finance: Current Trends and Difficulties

Objectives of the Lesson:

After studying this unit you should able to:

- To know the Current Trends and Difficulties faced in the Capital Markets
- To understand the issues relating to Liberalization Vs Protectionism
- Explain the Constituents of Sound Governance in the Contemporary World

Structure of Lesson

5.0 Introduction

The explosive growth of international financial transactions and capital flows is one of the most far-reaching economic developments of the late 20th century. Net private capital flows to developing countries tripled – to more than US$150 billion a year during 1995 to 1997 from roughly US$50 billion a year during 1987 to 1989. At the same time, the ratio of private capital flows to domestic investment in developing

countries increased to 20% in 1996 from only 3% in 1990. Hence, this has affected a shift from the national economy to global economies in which production and consumption is internationalized and capital flow freely and instantly across borders.

Powerful forces have driven the rapid growth of international capital flows, including the trend in both industrial and developing countries towards economic liberalization and the globalization of trade. Revolutionary changes in information and communications technologies have transformed the financial services industry worldwide. Computer links enable investors to access information on asset prices at minimal cost on a real time basis, while increased computing power enables them to rapidly circulate correlations among asset prices and between asset prices and other variables. At the same time, new technologies make it increasingly difficult for governments to control either inward or outward international capital flows when they wish to do so.

In this context, perhaps financial markets are best understood as networks and global markets as networks of different markets linked through hubs or financial centers. This means that the liberalization of capital markets and with it, likely increases in the volume and volatility of international capital flows is an ongoing, and to some extent, irreversible process.

Generally, world GDP and trade growth slowed in the past 1997/1998 as the East Asian crisis deepened and its repercussion were felt increasingly outside the region. Asia recorded the strongest import and export contraction in volume and value terms of all regions of the world. The dollar value of Asia's imports registered an unprecedented decline of 17.5%. The five Asian countries most affected by the

financial crisis that broke in mid-1997, that is, Malaysia, Indonesia, Philippines, the Republic of Korea and Thailand experienced import contraction by one-third. In the context of these powerful trends, a few significant the issues relating to them are, particularly from a capital market regulator's perspective.

5.1 Current Trends and Difficulties faced in the Capital Markets

Developments in computer and information technology have made dramatic changes to the way the financial services industry operates. These changes are affecting and will affect every aspect of the financial services industry and offer the possibility of reduced costs in raising capital, greater efficiencies in the mobilization of domestic and international savings and the provision of better, cheaper investment products more closely tailored to the needs of different investor segments. The convergence of computer and communications technology is promoting the development of computer mediated networks, allowing for users to communicate and transmit data and other information regardless of boundaries and distance. As communication costs continue to fall, the potential of outsourcing grows.

These changes will affect –

- The way investment products are offered, distributed and marketed and the way in which investors access information about the products and entities involved;
- The activities of financial services intermediaries, especially advisers, and the way they deal with investors;
- The continued blurring of product and institutional boundaries, and even the scope of financial services sector itself as non-traditional entities take on some of the functions of financial intermediaries;

- The methods of distribution and marketing of investment products which will increasingly draw upon the techniques of mass marketed consumer products; and
- The way secondary trading in investment products takes place as greater scope for direct investor transactions and low cost competitors to established securities and futures markets becomes more of a reality.

Just as electronic commerce affects investors and providers of financial products and services; it will affect the role of corporations and capital market regulators. Just as electronic commerce facilitates activities across jurisdictional borders; it poses in clear terms questions about the practical enforceability of national laws. As well as practical enforcement questions, electronic commerce also raises issues about the role that capital market regulators should play and the effectiveness of many of the traditional regulatory approaches and mechanisms that have been employed by them. An example might be an offering of securities made without a prospectus or registration statement on the Internet by a person in a jurisdiction with which the capital market regulator has no regular contact or mutual enforcement arrangements. There are also concerns about illegal and fraudulent activity on the Internet.

5.2 Liberalization Vs Protectionism

On the issue of liberalization vis-à-vis protectionism, there has been a proliferation of multi-lateral trade agreements since the middle of the century. Such agreements provide for a framework of rules within which nations are 'obligated' to assure other nations signatory to the agreement of a sovereign's approach towards international trade. The globalization of economies is intrinsically linked to the internationalization of the services industry. It plays a fundamental

role in the growing interdependence of markets and production across nations. Information technology has further expanded the scope of tradability of this industry. Access to efficient services matters not only because it creates new potential for export but also it will be an increasingly important determinant of economic productivity and competitiveness. The main thrusts of the 'services revolution' are the rapid expansion of the knowledge-based services such as professional and technical services, banking and insurance, healthcare and education. Responding to this phenomenon, regulatory barriers to entry in service industries are being reduced worldwide, either through unilateral reforms, reciprocal negotiation, or multilateral agreements. Developing countries are increasingly looking at foreign direct investment in services as an especially powerful means of transferring technical and managerial know-how, besides attracting foreign capital and investment to the country.

5.2.1 Liberalization of Capital Account

A most obvious impact of globalization of trade is pressures exerted on developing nations to liberalize their financial markets and capital accounts. However, it is important to recognize that domestic and international financial liberalization heighten the risk of crises if not supported by prudential supervision and regulation and appropriate macroeconomic policies. Domestic liberalization, by intensifying competition in the financial sector, removes a cushion protecting intermediaries from the consequences of bad loan and management practices. It can allow domestic financial institutions to expand risky activities at rates that far exceed their capacity to manage them. By allowing domestic financial institutions access to complex derivative instruments it can make evaluating bank balance sheets more difficult

and stretch the capacity of regulators to monitor risks. External financial liberalization in allowing foreign entry into the domestic financial markets may facilitate easy access to an abundant supply of offshore funding and risky foreign investments. A currency crisis or unexpected devaluation (such as in the Asian crisis) can undermine the solvency of banks and corporations which may have built up large liabilities denominated in foreign currency and are unprotected against foreign exchange rate changes.

The ideal free market is one that every one should be free to enter, to participate in, and to leave. However, events in the recent financial crises have led many of us to believe that in the freest of markets, there is a need to ensure that free flow of capital does not destabilize the market itself.

Indeed, calls for reform have gained increasing support and credence within the international community with the unfolding of the devastating effects of the crisis beginning mid-1997. There are fundamental weaknesses in the existing global financial infrastructure that have caused and exacerbated these effects. These weaknesses include the inordinate power of highly leveraged institutions to move markets, the destabilizing force of volatile short-term capital flows and the failure of existing credit assessment systems to adequately inform market participants of increasing risk of default. One example of this mounting consensus was the express recognition by G7 countries at a meeting in Cologne of the need to strengthen the international financial architecture. There are now increasing calls for greater transparency and regulation of hedge funds and greater awareness of the dangers of volatile short-term capital flows.

5.3 Constituents of Sound Governance in the Contemporary World

On the domestic front, we would have to ask ourselves this question: has our Indian financial markets kept pace with change? Whilst markets have become global, applicable rules and regulations remain predominantly parochial or local. From a regulator's perspective, the challenge for us in a global market is to design the regulatory and structural framework which will allow the market to function efficiently, competitively in a fair and level playing field environment, ensuring at the same time that the market is not subject to highly concentrated or destabilizing forces that would disrupt its functioning.

The recent crisis also shows up the need for a careful and sequenced approach towards liberalizing a country's capital account. The experiences of Thailand, Korea, and Indonesia clearly tell us that there is no prescribed formula on sequencing. However, it is important to recognize that countries vary greatly in their levels of economic and financial development, in their institutional structures, in their legal systems and business practices, and their capacity to manage change in a host of areas relevant for financial liberalization. It is in recognition of this that the IMF policy-setting committee and subsequently the Finance Ministers and central bank governors of the G7 industrial nations, in the fall of 1998, stressed that a country opening its capital account must do so in an orderly, gradual, and well sequenced manner.

Issues of liberalisation versus protectionism would need to be considered at great length to ensure that a country is competitive in a global trading environment

Giving certainty to international financial transactions and protection to Foreign Investments

International trade and finance, because of its global nature, necessarily involves many areas which may give rise to uncertainty as to the applicability of the contract under which certain trade and financing arrangements are made. These areas range from political issues and political stability to sovereign intervention of the economy, certainty of applicable laws as well as independence of the judiciary.

In less than half a century, the states of Asia have moved through a whole range of stances which could be adopted towards foreign investment. The immediate post-colonial period was characterized by a period of hostility towards foreign investment, motivated by the belief that the ending of economic imperialism alone will bring about true independence. The ensuing period was dominated by a debate about the regulation of multinational corporations and the fear that they posed a threat to state sovereignty. In this period, laws were devised to control the entry of foreign investment and the manner in which such foreign investment operated in the host country after entry. The third and present period is a period of pragmatism where the dominant view is that foreign investment, if properly harnessed, can be an instrument which generates rapid economic development. Competition for the limited investment that is available means that each state country which is bent on a foreign investment led growth strategy must make its laws as hospitable to the foreign investor as the other state which is also bent on a similar strategy.

As much as there is competition among countries to attract foreign investment, there is competition among multinational corporations to enter host countries. Whereas previously the market

was dominated by large multinationals, now, there are small and medium enterprises which can transfer more appropriate technology and bring sufficient assets for investment.

This "open door" policy towards foreign investment in developing countries is typically achieved through careful screening of entry by administrative agencies which have been established for the purpose and regulation of the process of foreign investment after entry has been made. After entry, there is continued surveillance of the foreign investment to ensure that the foreign investment keeps to the conditions upon which entry was permitted. In this regard, attitudes to foreign investment protection and dispute resolution will be affected by the new strategies adopted towards foreign investment.

In the context of the new strategies which have been developed by controlling entry and the later surveillance of operations of foreign investment, the foreign investment has ceased to be a contract based matter and had become a process initiated by a contract no doubt but controlled at every point through the public law machinery of the state. The old notions of foreign investment protection which concentrated on the making of the contract and the contract as the basis of all rights of the foreign investor would inevitably become obsolete. This transformation which has taken place is crucial to the devising of effective methods of foreign investment protection. The subject matter of the protection has also changed in that not only physical assets of the foreign investor but his intangible assets which include intellectual property rights as well as public law rights to licences and privileges have become the subject of protection.

The proposition that contractual provisions in an agreement concluded with a host country offer little protection to foreign

investment must be qualified in a situation when a bilateral investment treaty has been entered between the state of the foreign investor and the host country. The result will be different, for the contract becomes effectively internationalized as a result of the existence of such a treaty. It is a basic proposition of international law that any matter that is essentially within the domestic jurisdiction of any state could be internationalized if it is made the subject of an international treaty. The existence of a bilateral investment treaty which covers the foreign investment then internationalizes the whole process of foreign investment which would otherwise have been a process that takes place entirely within the sovereign jurisdiction of the host state. But, whether this result will follow depends on the terms of the bilateral investment treaty.

Bilateral investment treaties are obviously regarded as important by both capital exporting and capital importing states. But, these treaties are not uniform and they do not have the ability to create any uniform law on foreign investment protection. But their existence adds to investor confidence and creates an expectation of investor protection. The importance of these treaties lies in the several results they achieve. The first is a signaling function about the national policy towards foreign investment.

Another advantage is that the foreign investment contract in the context of bilateral investment treaties could have the effect of forming assets protected by the bilateral investment treaties. This will also include licences and other advantages obtained from the government during the course of the foreign investment. Whereas without the bilateral investment treaty these licences and advantages may have been without protection under general international law, they new

receive protection as a result of the wide definition of property in the bilateral investment treaty. Whether the host country did intend that its administrative decisions be subjected to international review as a result of the treaty will remain a moot point. But, it remains a possible result if the treaty.

5.4 The Investment Guarantee Agreement (IGA)

The Investment Guarantee Agreement protects parties involved in an international transaction from non-commercial risks such as nationalization and expropriation. The IGA will provide a foreign investor with the following:

- protection against nationalization and expropriation;
- prompt and adequate compensation in the event of nationalization or expropriation under a lawful or public purpose;
- free remittance of currency, profits, capital or other fees on investment;
- settlement of investment disputes either through a process of consultation through diplomatic channels or if such process fails, for referral to the International Court of Justice. Disputes in connection with investments, under IGAs should first be resolved through local judicial facilities. In the event of failure to settle, it would be referred to the Convention on the Settlement of Investment Disputes or the International Adhoc Arbitral Tribunal established under the Arbitration Rules of the United Nations Commission on International Trade Law.

5.5 Trade Disputes Settlements

Another aspect of international trade is the availability of acceptable dispute resolution form. Globalization of trade obviously involves greater potential for generating international trade disputes. The international business community looks for prompt, economical,

and fair conflict-resolution mechanisms. Negotiation, conciliation, litigation, and arbitration are well-known conflict-resolution devices. Direct negotiations and conciliation may resolve a conflict. However, when parties fail to solve the controversy through direct negotiations, they have two choices: litigation or arbitration.

Within the context of the GATS, there is an express provision for trade settlement dispute where countries have disputes in relation to commitments made under the agreement. The WTO have provided for procedures in relation to a dispute settlement process. The dispute settlement procedure is considered to be the WTO's most individual contribution to the stability of the global economy. The WTO's procedure underscores the rule of law, and it makes the trading system more secure and predictable. It is clearly structured, with flexible timetables set for completing a case. First rulings are made by a panel, appeals based on points of law are possible, and all final rulings or decisions are made by the WTO's full membership. No single country can block a decision. It is indeed a challenge to us all to be able to grapple with some of the abovementioned issues and adopt appropriate responses.

Review Questions

1. Discuss the Current Trends and Difficulties faced in the Capital Markets.
2. Explain in detail the issues relating to Liberalization Vs Protectionism
3. What do you mean by open door?
4. What is Investment Guarantee Agreement (IGA)?
5. Explain Trade Disputes Settlements in detail.

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LESSON - 1

EXCHANGE RATES DETERMINANTS

Objective: In this lesson, we will introduce you the meaning of exchange rates determinants. This lesson is concept based. After you workout this lesson, you should be able to:

- Know the meaning of exchange rate determinants.
- Understand the theories of exchange rate determinants.

EXCHANGE RATES DETERMINANTS: AN OVERVIEW

Forex market is the largest financial market in terms of size. This is so irrespective of the fact that it is fully over the counter market. By far the largest market for currencies is the inter-bank market, which trades spot and forward contracts. The market can be termed as efficient with enough breadth, depth and resilience.

The basic theories underlying the exchange rates –

1. **Law of One Price**: In competitive markets free of transportation costs barriers to trade, identical products sold in different countries must sell at the same price when the prices are expressed in terms of their same currency.

Purchasing power parity: As inflation forces prices higher in one country but not another country, the exchange rate will change to reflect the change in relative purchasing power of the two currencies.

2. **Interest rate effects**: If capital is allowed to flow freely, the exchange rates stabilize at a point where equality of interest is established.

The Fisher Effect: the nominal interest rate (r) in a country is determined by the real interest rate R and the inflation rate *i* as follows: $(1 + r) = (1 + R)(1 + i)$

International Fisher Effect: the spot rate should change in an equal amount but in the opposite direction to the difference in interest rates between two countries.

$$\frac{S1 - S2}{S2} \times 100 = i2 - i1$$

Where: S1 = spot rate using indirect quotes at beginning of the period;

S2 = spot rate using indirect quotes at the end of the period;

i = respective nominal interest rates for country 1 and 2.

Though the above principles attempt to explain the movement of exchange rates, the assumptions behind these two theories *[free flow of capital]* are seldom seen and thus these theories can't be applied directly.

The dual forces of demand and supply determine exchange rates. Various factors affect these, which in turn affect the exchange rates.

The business environment: Positive indications (in terms of govt. policy, competitive advantages, market size etc) increase the demand of the currency, as more and more entities want to invest there. This investment is for two basic motives –purely business motive, and for risk diversification purposes. Foreign direct investment is for taking advantage of the

comparative advantages and the economies of scale. Portfolio investment is mainly done for risk diversification purposes.

Stock market: The major stock indices also have a correlation with the currency rates. The Dow is the most influential index on the dollar. Since the mid-1990s, the index has shown a strong positive correlation with the dollar as foreign investors purchased US equities. Three major forces affect the indices: 1) Corporate earnings, forecast and actual; 2) Interest rate expectations and 3) Global considerations. Consequently, these factors channel their way through the local currency.

Political Factors: All exchange rates are susceptible to political instability and anticipations about the new ruling party. A threat to coalition governments in France, India, Germany or Italy will certainly affect the exchange rate. For e.g. Political or financial instability in Russia is also a red flag for EUR/USD, because of the substantial amount of Germany investment directed to Russia.

Economic Data: Economic data items like labor report (payrolls, unemployment rate and average hourly earnings), CPI, PPI, GDP, international trade, productivity, industrial production, consumer confidence etc. also affect the exchange rate fluctuations. Confidence in a currency is the greatest determinant of the exchange rates. Decisions are made keeping in mind the future developments that may affect the currency. And any adverse sentiments have a contagion effect. The observers have generally concluded that devaluations should be avoided at all costs, since the panics have almost all followed currency devaluations. Some are of the view that is it not the devaluation, but rather the defense of the exchange rate preceding the crisis that opens the door to financial panic. The devaluation, which follows the depletion of reserves usually, alerts the market to the exhaustion of reserves, a state of affairs, which is not fully apparent to many market participants before the devaluation takes place. Holders begin to convert their money into foreign exchange in expectation of devaluation, and suppose that the central bank defends the exchange rate, by buying high-powered money and selling dollars. Thus, a panic can unfold simply by the belief of creditors that it will indeed occur. In the past four years, mainly three types of events have triggered such panics:

1) The sudden discovery that reserves is less than previously believed

2) Unexpected devaluation (often in part for its role in signaling the depletion of reserves); and,

3) Contagion from neighboring countries, in a situation of perceived vulnerability (low reserves, high short-term debt, overvalued currency).

Government influence: A country's government may reduce the growth in the money supply, raising interest rates, and encouraging demand for its currency. Or a government may simply buy or sell forex to maintain stability or to support either exporters or importers.

Productivity of an economy: An increase in productivity of an economy tends to impact exchange rates. It affects are more prominent if the increase is in the traded sector. A recent study by the federal reserve bank of New York shows that over a 30 yrs. Period [1970-1999] productivity changes and the dollar /euro real exchange rates have moved in tandem.

AN ILLUSTRATION

1. The exchange rate often fluctuated quite a lot over the short term, but followed a more rational path over the long term.

2. That against the background of over the twenty-one month period from the beginning of 2000 to 11 September 2001 the rand maintained an almost consistent and fairly well-defined declining trend against the US dollar.

Possible reasons attributed:

1. The internal purchasing power of a currency and its exchange rate tend to move together over time. Historically, South Africa has had a faster than average inflation rate and rand has had a declining trend against, for example, US dollar.

2. A currency with above average inflation and that tends to depreciate will tend to have higher than average inflation rates. The more than average interest rates in South Africa made rand more attractive and valuable.

2. Due to steady depreciation of the rand during 2000 and the first half of 2001 most market *participants came to the view that the currency was weak* and it is likely that they took decisions to help protect themselves against *the contagion effect* A perfectly legitimate large transaction by one of the major market players might have led to the emergence of a herd

mentality resulting in the run on the rand. The steady decline was a result of economic, political, policy and confidence factors and other factors that build over months.

3. The South African exchange rate is determined by forces of demand and supply. The system of a managed float is by its nature unstable. Volatile movements in the exchange rate can be expected from time to time.

4. There were a number of variables at play at the same time and certainly in our attempts to try and understand what was going on, we have been unable to say what caused it was A and not B. It was a complex set of issues not least of which is the confidence that South Africans have in their own country and their own economy and so it has been difficult for us to say that there was one. There were lots of things happening at the same time.

LESSON - 2

FOREIGN EXCHANGE EXPOSURE, EXPOSURE & RISK AND CLASSIFICATION, ESTIMATION & PRACTICE OF THE EXPOSURE

Objectives: In this lesson, we will introduce you to the meaning and nature of foreign exchange exposure, risk and estimation of the exposure line. This lesson is concept based. After you workout this lesson, you should be able to:

- Know the meaning of foreign exchange exposure, risk and classification, estimation & practice of exposure.
- Understand the nature of foreign exchange exposure and risk.

THE MEANING AND NATURE OF FOREIGN EXCHANGE EXPOSURE

The values of a firm's assets, liabilities and operating income vary continually in response to changes in myriad economic and financial variables such as exchange rates, interest rates, inflation rates, relative prices and so forth. We can label these uncertainties as macro-economic environmental risks. In addition, uncertainties related to its operating business such as interruptions in raw materials supplies, labour troubles, success or failure of a new product or technology and so forth obviously have an impact on the firm's performance. These can be grouped under the heading of core business risks.

While core business risks are specific to firm, macro-economic uncertainties affect all firms in the economy. However, the extent and nature of impact of even macro-economic risks crucially depend upon the nature of a firm's business. For instance, fluctuations of exchange rate will affect net importers and net exporters quite differently; the impact of interest rate fluctuations will be very different on a bank from that on a manufacturing firm; oil price gyrations will affect an airline in one way and an oil producer in a quite different way.

The nature of macro-economic uncertainty can be illustrated by a number of commonly encountered situations. An appreciation of the value of a foreign currency (or equivalently, a depreciation of the domestic currency), increases the domestic currency value of a firm's assets and liabilities denominated in the foreign currency-foreign currency receivables and payables, bank deposits and loans, etc. It will also change domestic currency cash flows from exports and imports. An increase in interest rates reduces the market value of a

portfolio of fixed-rate bonds and may increase the cash outflow on account of interest payments. Acceleration in the rate of inflation may increase the value of unsold stocks, the revenue from future sales as well as the future costs of production. Thus the firm is "exposed" to uncertain changes in a number of variables in its environment. These variables are sometimes called Risk Factors.

Uncertainties arising out of fluctuations in exchange rates, interest rates and relative prices of key commodities such as oil, copper, etc, create strategic exposure and risk for a firm. As we will see below, the long run response of the firm to these risks can involve significant changes in the firm's strategic posture choice of product-market combinations, sourcing of inputs, and choice of technology, location of manufacturing activities, strategic alliances and so forth.

The primary focus of this book is on the firm's exposure to changes in exchange rates and interest rates. However, as we will see later, exchange rates, interest rates and inflation rates are intimately interrelated and, are in turn related to a whole complex of macroeconomic variables. In many cases, it may be very difficult to isolate the effect of changes in anyone of them on the firm's assets, liabilities and cash flows.

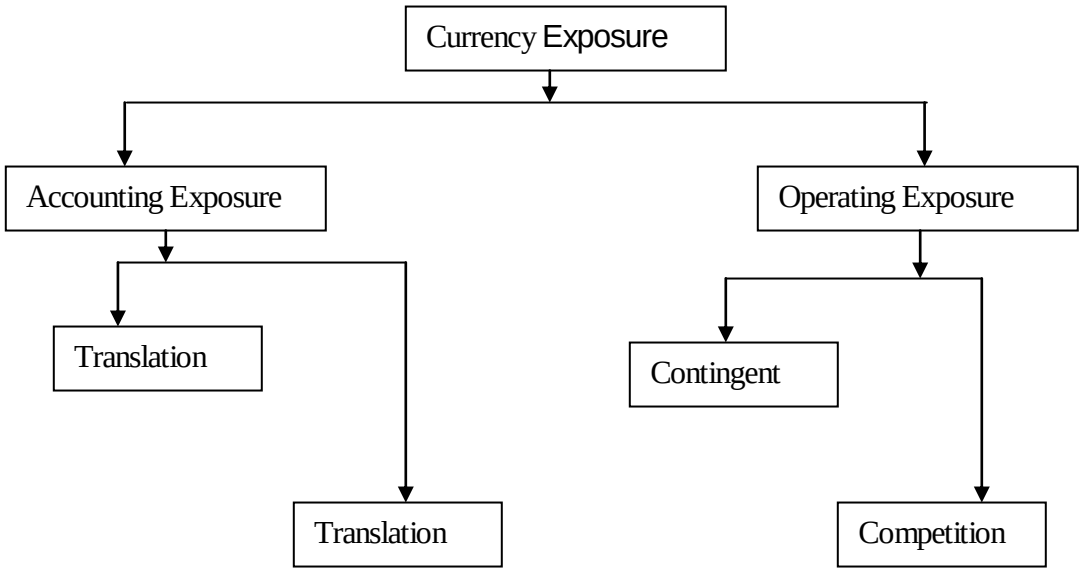
It is not uncommon to find the terms exposure and risk being used interchangeably. However, as several authors have pointed out the two are not identical. Exposure is a measure of the sensitivity of the value of a financial item (asset, liability or cash flow) to changes in the relevant risk factor while risk is a measure of the variability of the value of the item attributable to the risk factor. Let us understand this distinction clearly: from April 1993 to July 1995 the exchange rate between rupee and US dollar-was almost rock steady. Consider a firm whose business involved both exports to and imports from the US. During this period the firm would have readily agreed that its operating cash flows were very sensitive to the rupee-dollar exchange rate i.e. it had significant exposure to this exchange rate; at the same time it would have said that it did not perceive significant risk on this account because given the stability of the rupee exchange rate, the probability of large fluctuations in its operating cash flows on account of rupee dollar fluctuations would have been perceived to be minimal. Thus the magnitude of risk is determined by the magnitude of exposure and the degree of variability in the relevant risk factor.

EXPOSURE AND RISK

Exposure of a firm to a risk factor is the sensitivity of the real value of a firm's assets, liabilities or operating income, expressed in its functional currency, to unanticipated changes in the risk factor. The important points of risk are as follows:

- Values of assets, liabilities or operating income are to be denominated in the functional currency of the firm. This is the primary currency of the firm and in which its financial statements are published. For most firms it is the domestic currency of their country.
- Exposure is defined with respect to the real values i.e. values adjusted for inflation. While theoretically this is the correct way of assessing exposure, in practice due to the difficulty of dealing with an uncertain inflation rate this adjustment is often ignored i.e. exposure is estimated with reference to changes in nominal values.
- The definition stresses that only unanticipated changes in the relevant risk factor are to be considered. The reason is that markets will have already made an allowance for anticipated changes. For instance, an exporter invoicing a foreign buyer in the buyer's currency will build an allowance for the expected depreciation of that currency into the price. A lender will adjust the rate of interest charged on the loan to incorporate an allowance for the expected depreciation. From an operational point of view, the question is how do we separate a given change in exchange rate or interest rate into its anticipated and unanticipated components since only the actual change is observable? One possible answer is to use the relevant forward rate as the expected value of the underlying risk factor. For instance, one possible estimate of what the exchange rate will be three months from now is today three month forward rate. Suppose that the price of a pound sterling in terms of rupees for immediate delivery (the so called spot rate) is Rs. 80.00 while the six month forward rate is Rs. 80.20. We can say that the anticipated depreciation of the rupee is 20 paisa per pound in six months. If six months later, the spot rate turns out to be Rs. 80.30, there has been an unanticipated depreciation of 10 paisa per pound.

The change in exchange rate is the only risk factor affecting the value of the exposed item. This will indeed be the case if the foreign currency value of the item is fixed.



ESTIMATION OF THE EXPOSURE LINE

The interpretation of the exposure relationship as a regression equation suggests that an estimate of β_1 can be obtained by the method of ordinary least squares. We can collect historical data on V and S^U and fit a straight line to the data by the least squares method. The slope of the fitted line then is the measure of exposure.

As we have seen above, in the case of items with contractually fixed foreign currency values, there is an exact systematic relation between V and S^u and all our data points will fall precisely on the line. In the case of items whose foreign currency values can change, there will be "noise" in the relationship due to the random element ε. The data points will not fall exactly on

a straight line; we can statistically estimate the parameter β_1' However, in this case, the reliability of the estimated equation will depend upon the relative strengths of the systematic and random components of equation.

More pertinent however is the fact that the exposure relation may not be stable, i.e. the underlying "true" values of the parameters β_0 and β_1 may be changing over time particularly if the relationship is being estimated for the entire collection of a firm's assets or liabilities and the composition of these collections changes over time. Further, in practice it may be quite difficult to obtain estimates of changes in real domestic currency values of exposed items. In practice therefore, estimation of exposure requires that the finance manager should construct alternative scenarios of exchange rates, interest rates and inflation rates and examine the impact of each combination on the various items in the firm's balance sheet and projected income statement.

The idea of foreign exchange exposure as the systematic relation between the change in real domestic currency value of an item and the unanticipated change in exchange rate can be extended to multiple exposures, for example when the firm has receivables in many foreign currencies. The relationship can be written as

$$V = \beta_0 + \beta_1 (S^u_1) + \beta_2 (S^u_2) + ... + \beta_n (S^u_n) + \varepsilon$$

The slope coefficients β_1, β_2 ... β_n measure the exposure with respect to the corresponding exchange rate. One can also include other risk factors in the above equation to estimate the exposure to them.

Finally, it must be recognized that exchange rate changes can affect a firm even if all or most of its assets, liabilities and cash flows are denominated in its home currency. This is because of the intimate connection between exchange rates and other macro-economic variables like interest rates and price level. For instance, in response to an actual or incipient depreciation of the home currency, the monetary authorities might resort to raising interest rates at home in order to attract short-term foreign capital or make it difficult for domestic residents to borrow home currency to buy and hold foreign currency. This in turn will adversely affect the market

value of a portfolio of fixed interest securities held by the firm. For a non financial firm selling consumer durables like cars, higher interest rates may be bad news. Changes in exchange rates will affect the relative competitiveness of a firm which produces an import substitute and hence will affect its future sales and cash flows. An appreciation of the home currency reduces home currency price of imports; if a firm produces an import-competing product, such an event would have a depressing effect on its sales. Thus even a "purely domestic" firm is exposed to exchange rate changes.

In contrast to exposure which is a measure of the response of value to changes in the relevant risk factor, **risk** is a measure of variability of the value of an item attributable to variations in the risk factor. There are many ways to quantify this concept of variability. The one most often used by statisticians is the so called **variance** or its square-root known as **standard deviation.** The variance of a random variable is a probability-weighted measure of departures from its average value. Using this measure of variability, foreign exchange risk can be defined as:

The variance of the real domestic currency value of assets, liabilities or operating income attributable to unanticipated changes in exchange rates.

Risk as defined here depends upon the exposure as β_1 appears in this relation. It also depends upon the variance of the unanticipated changes in exchange rates.

Consider an example; a firm has a 90 day payable of 100,000 Swiss francs. The current spot rate is Rs 37.00/SFr. The 90 day forward rate is Rs 37.50. The spot rate 90 days hence is assumed to have a, normal distribution with a mean of Rs 37.50 and a standard deviation of Rs *0.05.11* Denote the spot rate by So' and the spot rate 90 days from today by *S3'* The total change in exchange rate from today to 90 days from today is *(S3* - So). This can be broken down into

$$S_3 - S_o = [S_3 - E(S_3)] + [E(S_3) - S_o] = S^u + S^a$$

Where, E(S3) means "expected value of S_3", S^U is the unanticipated component of the change and S^a is the anticipated component. Thus suppose the spot rate 90 days hence is 37.90. The total change is Rs 0.90 (S_3-S_o), anticipated change is 0.50 [= $E(S_3)$ - So] and unanticipated change is *0.40* [= S_3 - $E(S_3)$]. Since S_3 has a normal distribution with mean 37.50 and standard

deviation Rs *0.05, [S_3 - $E(S_3)$]* will have a normal distribution with mean zero and identical standard deviation of Rs *0.05.* Since the unanticipated change in the rupee value of the payable is given by 100,000 (S^U*),* it will also have a normal distribution with mean zero and standard deviation of Rs 5,000. Using the properties of the normal distribution, one can say with 95% confidence that the unanticipated change in the value of the payable will lie between -10,000 and +10,000. Since the anticipated change is Rs 50,000 [= 0.50 x 100000] the total change will be between Rs 40,000 to Rs 60,000.

Thus, the measure of risk tells us how volatile the values of the firm's assets, liabilities or operating income are in the face of fluctuations in the underlying risk factor, in this case, the exchange rate.

Instead of variance, one can estimate the possible range i.e. the difference between the highest and lowest values of the item given certain assumptions about the possible range of variation in the exchange rate. In a similar vein, one can construct alternative scenarios of exchange rate movements (or movements in any other risk factor). The "best case" and the "worst case" scenarios correspond to the most favourable and the least favourable circumstances. For instance, for a company with a payable in foreign currency, "best case" would correspond to the largest depreciation (or smallest appreciation) of the foreign currency considered likely and the "worst case" would consider the maximum appreciation.

CLASSIFICATION OF FOREIGN EXCHANGE EXPOSURE AND RISK

Since the advent of floating exchange rates in 1973, firms around the world have become acutely aware of the fact that fluctuations in exchange rates expose their revenues, costs, operating cash flows and hence their market value to substantial fluctuations. Firms which have cross-border transactions-exports and imports of goods and services, foreign borrowing and lending, foreign portfolio and direct investment, etc.-are directly exposed; but even "purely domestic" firms which have absolutely no cross-border transactions are also exposed because their customers, suppliers and competitors are exposed. Considerable effort has since

been devoted to identifying and categorizing currency exposure and developing more and more sophisticated methods to quantify it.

In the short-term, the firm is faced with *two* kinds of exposures. It has certain contractually fixed payments and receipts in foreign currency such as export receivables, import payables, interest payable on foreign currency loans and so forth. Most of these items are expected to be settled within the upcoming financial year.

An unanticipated change in the exchange rate has an impact-favorable or adverse on its cash flows. Such exposures are known as Transactions Exposures. In essence it is a measure of the sensitivity of the home currency value of assets and liabilities which are denominated in foreign currency, to unanticipated changes in exchange rates, when the assets or liabilities are liquidated. The foreign currency values of these items are contractually fixed i.e. do not vary with exchange rate. Hence it is also known as contractual exposure.

Some typical situations which give rise to transactions exposure are:

(a) A currency has to be converted in order to make or receive payment for goods and services-import payables or export receivables denominated in a foreign currency.

(b) A currency has to be converted to repay a loan or make an interest payment.

(c) A currency has to be converted to make a dividend payment, royalty payment, etc.

Note that in each case, the foreign currency value of the item is fixed; the uncertainty pertains to the home currency value.

It is March 18, 2005. An Indian company has cleared an import shipment of specialty chemicals. The invoice is for US$ 250,000 payable on September 20. The current exchange rate is Rs 43.67 per dollar. The recent history of the exchange rate depicted below shows some volatility. During the last six months or so, dollar has shown considerable weakness against all currencies including the rupee. An adverse movement in exchange rate Viz. a sharp rise in dollar, will reduce the firm's cash flows. There is also the problem of how to value the imports for the purpose of product costing and pricing decisions.

- What should the firm do?

A US firm has exported some computer peripherals to a German buyer. For customer

relationship reasons the sale has been invoiced in buyer's currency viz. Euro. The invoice is for $1,000,000 to be settled 60 days from now. The current exchange rate is $1.3250 per Euro. The recent history of the dollar-euro rate Sl10wn below indicates an upward trend with some fluctuations. The firm's bankers are fairly bullish about the Euro despite the reversionary conditions in the major European economies viz. Germany and France. However, US treasury secretary has expressed concern about the weak dollar.

- What should the firm do?

Suppose a firm receives an export order, it fixes a price, manufactures the product, makes the shipment and gives 90 days credit to the buyer who will pay in his currency. A company has acquired a foreign currency receivable which will be liquidated before the next balance sheet date. The company has a transaction exposure from the time it accepts the order till the time the payment is received and converted into domestic currency. The exposure affects cash flows during the current accounting period. If the foreign currency has appreciated between the day the receivable was booked and the day the payment was received, the company makes an exchange gain which may have tax implications. In a similar fashion, interest payments and principal repayments due during the accounting period create transaction exposure.

Transaction risk can be defined as a measure of variability in the value of assets and liabilities when they are liquidated.

The important points to be noted here are (1) transactions exposures usually have short time horizons and (2) operating cash flows are affected.

Sometimes, a transaction is being negotiated, all the terms have been more or less finalized but a contractual arrangement is yet to be entered into. In such cases the firm has an anticipated cash flow exposure.

The other kind of short-term exposure is known as Translation Exposure also called Accounting Exposure. A firm may have assets and liabilities denominated in a foreign currency. These are not going to be liquidated in the foreseeable future but accounting standards which govern the reporting and disclosure practices require that at the end of the fiscal year the firm must translate the values of these foreign currency-denominated items into

its home currency and report these in its balance sheet. Translation risk is the related measure of variability.

The key difference between transaction and translation exposure is that the former has impact on cash flows while the latter has no direct effect on cash flows. (This is true only if there are no tax effects arising out of translation gains and losses.)

Translation exposure typically arises when a parent multinational company is required to consolidate a foreign subsidiary's financial statements with the parent's own statements after translating the subsidiary's statements from its functional currency into the parent's home currency. Thus suppose an Indian company has a UK subsidiary. At the beginning of the parent's financial year the subsidiary has real estate, inventories and cash valued at, respectively, £1,000,000, £200,000 and £150,000. The spot rate is Rs 80 per pound sterling. By the close of the financial year, these have changed to £950,000, £205,000 and £160,000 respectively. However, during the year, there has been a drastic depreciation of the pound to Rs 75. If the parent is required to translate the subsidiary's balance sheet from pound sterling into rupees at the current exchange rate, it has "suffered" a translation loss. The translated value of its assets has declined from Rs 10.80 crore to Rs 9.8625 crore. Note that no cash movement is involved since the subsidiary is not to be liquidated. Also note that there must have been a translation gain on the subsidiary's liabilities e.g., debt denominated in pound sterling.

There is broad agreement among finance theorists that translation losses and gains are only national accounting losses and gains. The actual numbers will differ according to the accounting practices followed and, depending upon the tax laws, there mayor may not be tax implications and therefore real gains or losses. Accountants and corporate treasurers however do not fully accept this view. They argue that even though no cash losses or gains are involved, translation does affect the published financial statements and hence may affect market valuation of the parent company's stock. Whether investors indeed suffer from "translation illusion" is an empirical question. Some evidence from studies of the valuation of American multinationals seems to indicate that investors are quite aware of the notional character of these losses and gains and discount them in valuing the stock. For Indian

multinationals, translation exposure is a relatively less important consideration since as of now; the law does not require translation and consolidation of foreign subsidiaries' financial statements with those of the parent companies.

The second group of exposures, classified as long-term exposures consists of operating exposure and strategic exposures. The principal focus here is on items which will have impact on the cash flows of the firm in years to come and which may have a serious impact on the competitive posture of the firm forcing it to restructure its business and redefine its long-term strategy. Horizons are long, nothing is contractually fixed and the impact of exchange rate fluctuations can have substantial, sustained implications for the firm's bottom line and whose values are not (yet) contractually fixed in foreign currency terms.

Of the two kinds of long-term exposures, operating exposures capture the impact of unanticipated exchange rate changes on the firm's revenues, operating costs and operating net cash flows over a medium-term horizon-say up to three years.

Consider a firm which is involved in producing goods for export and/or import substitutes. It may also import a part of its raw materials, components, etc. A change in exchange rate(s) gives rise to a number of concerns for such a firm:

1. What will be the effect on sales volume if prices are maintained? If prices are changed? Should prices be changed? For instance, a firm exporting to a foreign market might benefit from reducing its foreign currency price to the foreign customers following an appreciation of the foreign currency; a firm which produces import substitutes may contemplate an increase in its domestic currency price to its domestic customers without hurting its sales. A firm supplying inputs to customers who in turn are exporters will find that the demand for its product is sensitive to exchange rates.
2. Since a part of the inputs are imported, material costs will increase following a depreciation of the home currency. Even if all inputs are locally purchased, if their production requires imported inputs, the firm's material costs will be affected following a change in exchange rate.

3. Labour costs may also increase if cost of living increases and wages have to be raised.
4. Interest costs on working capital may rise if in response to depreciation the authorities resort to monetary tightening.
5. Exchange rate changes are usually accompanied by; if not caused by differences in inflation across countries. Domestic inflation will increase the firms' material and labour costs quite independently of exchange rate changes. This will affect its competitiveness in all the markets but particularly so in markets where it is competing with firms from other countries.
6. Real exchange rate changes also alter income distribution across countries. A real appreciation of the US dollar *vis-à-vis* say the Euro implies an increase in real incomes of US residents and a fall in real incomes of Euro land. For an American firm which sells both at home and exports to Europe, the net impact depends upon the relative income elasticity in addition to any effect of relative price changes.

Thus, the total impact of a real exchange rate change on a firm's sales, costs and margins depends upon the response of consumers, suppliers, competitors and the government to this macro-economic shock.

In general, an exchange rate change will affect both future revenues as well as operating costs and hence the operating income. As we will see later, the net effect depends upon the complex interaction of exchange rate changes, relative inflation rates at home and abroad, extent of competition in the product and input markets, currency composition of the firm's costs as compared to its competitors' costs, price elasticity of export and import demand and supply, and so forth.

In the long run, exchange rate effects can undermine a firm competitive advantage by raising its costs above those of its competitors or affecting its ability to service its market in other ways. Such competitive exposure is often referred to as "Strategic Exposure" because it has significant implications for some strategic business decisions. It influences the firm's choice of product-market combinations, sources of inputs, location of manufacturing activity, decisions

as to whether foreign operations should be started.

A number of examples from recent and past history clearly bring out the nature of operating and strategic exposure:

1. In the late '70's Laker Airways started offering cut-price, trans-Atlantic air travel to British tourists taking vacations in the US. The dollar was weak and tourist traffic was strong. Laker then expanded its fleet by buying aircraft financed with dollar borrowing. In late 1981 the dollar started rising and continued to climb for nearly four years. On the one hand, the transaction exposure on servicing the dollar liabilities and on the other the operating exposure due to falling tourist traffic created a severe cash crunch for Laker. The strong dollar meant that US vacations were an expensive proposition for British tourists. Ultimately, Laker Airways went bankrupt.
2. The relentless rise of the dollar during the first half of eighties eroded the competitive position of many American firms. Corporations like Kodak found that most of their costs were dollar denominated while their sales were in all parts of the world, denominated in a number of foreign currencies which were falling against the dollar. They faced stiff competition from Japanese firms such as Fuji both in the US market as well as third country markets. Kodak could not raise its prices without significant loss of sales. Companies like International Harvester found themselves in a similar position and even moved some of their manufacturing operations out of US.
3. Conversely, when the dollar started falling against the Yen and Deutschemark around mid-1985 and continued to fall for over two years, Japanese and German car makers found their operating margins being squeezed. They responded partly by starting manufacturing operations in US and partly by moving up-market into premium-priced luxury cars where consumer sensitivity to price increases are relatively less.
4. Closer home, Indian manufacturers of cars and two-wheelers with significant

import content denominated in Yen have found that the persistent strength of the Yen has meant cost increases which they have not always been able to pass on to the consumer because of depressed demand conditions and competitive considerations.

5. American pharmaceutical multinationals like Merck have found that during periods of strong dollar, their cash flows denominated in dollars tend to shrink. Bulk of their R&D expenditures is denominated in dollars, and shortage of internally generated cash tends to have adverse impact on their R&D budgets which are a crucial factor in their long-run competitiveness.

In all these cases, exchange rate changes coupled with concomitant changes in relative costs have had significant impact on the firms' ability to compete effectively in particular product-market segments, to undertake good investment projects and thus to enhance their long-run growth potential. This is the essence of operating and strategic exposure.

If a firm has no direct involvement in any cross-border transactions it is not immune to exchange rate exposure. This "indirect" exposure is also in the nature of operating exposure faced by the firm. Changes in exchange rates will most likely have an impact on its customers, suppliers and competitors which in turn will force the firm to alter its operations and strategies. Thus a firm which produces an import substitute for purely domestic consumption with inputs denominated exclusively in home currency is nonetheless exposed to competitive exposure. An appreciation of the home currency puts it at a disadvantage relative to its competitors who sell the imported product. Similarly, a firm which buys its inputs from local firms who in turn have significant import content is as surely affected by exchange rate changes as a firm which directly imports some of its inputs. A firm which supplies intermediates to an exporter faces operating exposure even though it has no direct involvement in exports or imports. Finally, changes in exchange rates may trigger policy responses by the government which affects all the firms in the economy.

An alternative but similar in spirit approach to classification of currency exposure focuses on the length of the time horizon and whether or not the exposure impacts on the end-of-the-

horizon financial statements. For detailed discussions of this approach the reader should consult Antl (1989) and Hekman (1989). In this approach the term accounting exposure is used for short-term exposures which will have an impact on the financial results-income statement and balance sheet-for the immediate upcoming financial reporting period. It includes contractual transactions exposures as defined above, exposures on anticipated cash flows denominated in foreign currency and balance sheet exposures of foreign operations-what we have referred to as translation exposures. Depending upon the time profile of the anticipated cash flows and the changes in exchange rate, the cash flows impact would show up partly as operating variance and partly as a translation adjustment. Operating exposure is defined as above as the sensitivity of future operating profits to unanticipated changes in the exchange rate. Here the horizon is medium-term-say about 3 years-and the firm is expected to have some operational flexibility such as varying prices, sourcing and so forth. Balance sheet impact of translation gains or losses is left out of consideration. Strategic exposure refers to a still horizon and contemplates longer-term operational flexibility such as changing product-market mix, shifting location of operations and adopting new technologies. Finally, a comprehensive concept-which is very difficult to operational- is: "value-based" exposure which focuses on the impact of currency fluctuations on market value of the firm. It must take into account both short-term accounting exposures as well as operating and strategic flexibility in responding to currency movements.

THE PRACTICE OF EXPOSURE MANAGEMENT

There have been a number of investigations of corporate currency exposure management practices. The Important ones among these are Bodnar and Gentry (1993), Bodnar, Marston and Hayt (1998), Bodnar and Gebhardt (1999) and Loderer and Pichler (2000). Using secondary data, these studies investigate the reasons why corporations do or do not manage currency risk, the methods and instruments they use, whether they make any conscious effort to assess and quantify their currency risk profiles and whether they are any systematic relationships between firm characteristics such as size and risk management practices. While detailed findings vary, some broad patterns seem to be common across industries and

countries. The key findings can be summarized as follows:

1. Very few corporations undertake an accurate, quantitative assessment of how unanticipated exchange rate changes impact on the value of their firm. Even firms which are aware of the serious imp~ currency risk can have on the valuation of their stock have at best a qualitative understanding currency exposure-whether a depreciation of their home currency will improve or adversely after their value.
2. Most firms find it very difficult to gauge the long-term exposure of their businesses to currency fluctuations.
3. Relatively more but still a minority of the firms have some reliable quantitative understanding of II exposure of their operating cash flows to currency fluctuations.
4. A surprisingly large number of firms appear to think that they are not exposed to currency risk or that the risk is trivial. Most firms do not seem to be aware that indirect exposure can some times be quite significant.
5. Even among firms which engage in systematic assessment of their currency risk currency risk management, the focus is almost exclusively on short-term transactions exposures extending up to a year. Here too, firms do not appear to take an aggregate view of exposures preferring to deal with them individually.
6. Long-term operating exposures are dealt with by "on balance sheet" operating mechanisms. An such structural defense mechanisms are:
    (i) Setting up plants and sourcing of inputs in different currency areas.
    (ii) Have foreign subsidiaries borrow in local currencies
    (iii) Employee wages indexed to the ex change rate
    (iv) Redesign or upgrade products to cater to more price inelastic market segments.

Firms also react to exchange rate changes after the fact by revising pricing policies. Thus the practice of currency risk management, particularly long-term exposure, is much less precise and sophisticated than what the development of the theory would suggest even among the large firms in advanced countries.

LESSON - 3

EXPOSURE MANAGEMENT SYSTEM

Objectives: In this lesson, we will introduce you corporate exposure management policy and MIS for exposure management. After you workout this lesson, you should be able to:

- Know the meaning of corporate exposure management policy, MIS for exposure management and transaction exposure.
- Understand the application of corporate exposure management policy and MIS for exposure management.

CORPORTAE EXPOSURE MANAGEMENT POLICY

Here we focus on the risk management process and addresses the issues involved in setting up and implementing an exposure management system. Management of risk and exposure is an extremely important task and the effectiveness with which it is performed can have serious implications for a company's survival. It is not just a question of using particular instruments like forwards, futures or options to hedge individual exposures; deeper issues have to be addressed. Among them are:

(a) The company's strategic business posture, attitude towards risk and its risk tolerance.

(b) Organizational design to implement a coherent policy.

(c) Monitoring and control mechanisms.

(d) Implications for managerial performance evaluation.

(e) Possible conflict of interest between a parent company and its global subsidiaries.

Consequently, top management must get intimately involved in the process of designing the policy and ensure the participation of all those who have contributions to make as also those who might be affected by it.

It is obvious that exposure management policy and its implementation cannot be divorced from the particular set of circumstances which condition a firm's decision-making and

operations. Hence it would be foolhardy to attempt to provide a framework with universal applicability. Our aim in this chapter is only to bring out the critical dimensions-the questions that must be addressed in the process of evolving a risk management policy and related systems. The answers to these questions must be situation specific.

In the next section, we briefly outline the steps involved in the risk management process. Our exposition here draws on Lessard (1995) who discusses these issues in a somewhat different context. Following this, we discuss the issues related to organizational structure, allocation of responsibility and performance measurement. In the last section, we briefly outline the arguments for and against centralization of the exposure management function in the case of a global corporation.

INFORMATION SYSTEM FOR EXPOSURE MANAGEMENT

Effective exposure management requires a well-designed management information system (MIS). Exposures above a certain minimum size must be immediately reported to the executive or department responsible for exposure management. The three types of exposures-transactions, translation and operating must be clearly separated. In the case of cash flow exposures, the report must state the timing and amount of foreign currency cash flows, whether either or both are known with certainty or, if uncertain the degree of uncertainty associated with timing or amount. The exposure management team must evolve a procedure of assessing the risk associated with these exposures by adopting a clearly articulated forecasting method scenario approach. The benchmark for comparing the alternative scenarios must be clearly stated. As argued above, the appropriate benchmark for short-term transactions exposures is the relevant forward rate.

If a discretionary hedging posture is to be adopted, stop-loss guidelines must be clearly articulated. These can take the form of specified levels of forward rate or specified changes in the spot rate which when crossed would automatically trigger appropriate hedging actions.

All exposed positions including their hedges if any should be monitored at frequent intervals to estimate the mark-to-market value of the entire portfolio consisting of the underlying

exposures and their corresponding hedges.

When a particular exposure is extinguished, a performance assessment must be carried out by comparing the actual all-in rate achieved with the benchmark. This should be done at regular intervals with the frequency of assessment being determined by the size of exposures and their time profiles. Periodic reviews must be carried out to ensure that the risk scenarios being considered are not far removed from actual developments in exchange rates due to large forecasting errors.

Effective management of operating exposures requires far more information and judgmental inputs from operating managers. Pricing and sourcing decisions must involve the exchange rate dimension and its likely impact on future operating cash flows. A strategic review of the entire business model must incorporate realistic assessment of the impact of exchange rate fluctuations on the firm's entire operations in the medium to long term.

MANAGEMENT OF TRANSACTIONS EXPOSURE

Here we have defined the various types of exchange rate exposure and the associated risk that firms are subject to as a consequence of fluctuating exchange rate. We must now address the question of how to reduce or avoid this exposure. It deals with management of transactions exposure call that transaction exposure refers to the change in the home currency value of an item whose foreign currency value is contractually fixed.

The terms hedging and speculation that appear in the title of this chapter need to be clearly defined. The former will be understood to mean a transaction undertaken specifically to offset some exposure arising out of the firm's usual operations while the latter will refer to deliberate creation of a position for the express purpose of generating a profit from exchange rate fluctuations, accepting the added risk. With this definition, a decision not to hedge an exposure arising out of operations is also equivalent to speculation.

Management of transactions exposure has two significant dimensions. First, the treasurer must decide whether and to what extent any exposure should be explicitly hedged. The nature of the firm's operations may provide some natural hedges. Its market position may occasionally

permit it to entirely avoid transaction exposure. At other times, these internal hedges may be quite imperfect or too costly because of their adverse effects on sales or profit margins. Having decided to hedge whole or part of an exposure, the treasurer must evaluate alternative hedging strategies.

USING THE FORWARD MARKETS FOR HEDGING TRANSACTIONS EXPOSURE:

In the normal course of business, a firm will have several contractual exposures in various currencies maturing at various dates. The net exposure in a given currency at a given date is simply the difference between the total inflows and total outflows to be settled on that date. Thus suppose Fantasy Jewelry Co. has the following items outstanding:

Item	Value	Days to maturity
1. *USD* receivable	800,000	60
2. EUR payable	2,000,000	90
3. *USD* interest payable	100,000	180
4. *USD* payable	200,000	60
5. *USD* purchased forward	300,00	60
6. *USD* loan instalment due	250,00	60
7. EUR purchased forward	1,000,000	90

Its net exposure in *USD* at 60 days is

(800,000 + 300,000) - (200,000 + 250,000) = + *USD* 650,000

Whereas, it has a net exposure in EUR -1,000,000 at 90 days.

The use of forward contracts to hedge transactions exposure at a single date is quite straightforward. A contractual net inflow of foreign currency is sold forward and a contractual net outflow is bought forward. This removes all uncertainty regarding the domestic currency value of the receivable or payable. Thus in the above example, to hedge the 60-day *USD* exposure Fantasy Jewelry Co. can sell forward *USD* 650,(0) while *for* the EUR exposure it can buy EUR 1,000,000 90 days forward.

What about exposures at different dates? One obvious solution is to hedge each exposure separately with a forward sale or purchase contract as the case may be. Thus in the example, the firm can hedge the 60-day *USD* exposure with a forward sale and the 180-day USD

exposure with a forward purchase.

The Cost of a Forward Hedge

An important and often misunderstood concept is that of cost of forward hedging. It is a common fallacy to claim that the cost of forward hedging is the forward discount or premium. (If the foreign currency is sold at a discount, the discount is claimed to be the "cost" of the hedge; if it is bought at a premium, the premium is regarded as the cost. On this view, premium gained on forward sale or discount obtained on forward purchase is a "negative cost" or a gain).

The genesis of this fallacy is in the accounting procedure used to record transactions denominated in foreign currency and for which a forward hedge is used. Suppose an Indian firm buys equipment worth Euro 1,000,000 from a German supplier on 90-day credit. The accounts payable is then valued at today spot rate which is say Rs 52.50. The firm covers the payable with a 90-day forward purchase of Euros at 'premium of say Rs 0.20 i.e. the 90-day forward offer rate is Rs 52.70 per Euro. The firm has to pay Rs 52,700,000 to settle the payable valued at Rs 52,500,000. In recording this transaction, the following entries are made:

A/C Payable	52,500,000
Forward Loss	200,000
Bank Account	52,700,000

Thus the premium paid is recorded as the cost of forward cover. By the same logic, if the Euro had been at a forward discount, cost of forward cover would have been negative. However, this is a conceptually erroneous way of interpreting cost of forward cover.

The point is, the forward hedge must be compared not with today's spot rate but the ex-ante value of the payable if the firm does not hedge. Since the latter is unknown today, the relevant comparison is between the forward rate and the expected spot rate on the day the transaction is to be settled. The expected lost of forward hedge for the above Indian firm is given by

$$F_{1/4}\,(EUR/INR)_{ask} - S^{e}_{1/4},\,(EUR/INR)_{ask}$$

Where the notation $S^{e}_{1/4}$, denotes "spot rate expected to rule 90-days from today'".

The former when speculators are on balance forward sellers and the latter when they are net

forward buyers. The argument here is that speculators will demand a risk premium for assuming the risk of an uncertain future spot rate.

Even in this case the expected cost of hedging is zero. This is because the hedgers are passing on the risk to the speculators and the risk premium paid is the price of risk avoidance. The forward rate is the market certainty equivalent of the uncertain future spot rate. This can be understood as follows. Suppose me current USD/INR spot rate is 45.00 and the three month forward is 45.75. If you take an uncovered bog p'1sition in the forward contract, you would gain-the bank which sells you the forward contract would lose-if the spot three months later turns out to be greater than 45.75 and you would lose-the bank would gain-if it turns out to be below 45.75. If the forward rate quoted by the bank is inordinately high, say Rs 60, so that the probability of your gaining is very small, you would demand an upfront payment for liking a long position; similarly if it is ridiculously low, say Rs 20, the probability of the short side gaining is very low and the bank would demand up front compensation. The actual forward rate is such that risk adjusted gains equal risk adjusted losses so that the forward contract has zero value-neither the buyer nor the seller demands any payment at the initiation of the contract.

Hence presence of risk premium does not invalidate the contention that the expected cost of forward hedging is zero. Transaction costs are a different matter. As we have seen, the bid-ask spreads are generally wider in the forward segment than in the spot segment so that even if there is no risk premium

$$F_{t,T}(\text{EUR/INR})_{ask} > S_{t,T}(\text{EUR/INR})_{ask}$$

and $$F_{t,T}(\text{EUR/INR})_{bid} < S_{t,T}(\text{EUR/INR})_{bid}$$

Thus the only cost of a forward hedge is the larger spread in the forward market compared to the spot market. The extent of the difference depends on the relative depth of the two markets. For transaction between the major convertible currencies, the short-maturity forward markets are nearly as deep as the spot markets and the difference in spreads tends to be quite small.

The accounting problem mentioned above arises because the invoice amount is converted into domestic currency at today's spot rate. The correct procedure is to use the forward rate for this

purpose. To elaborate this argument considers the following example:

- A firm has exported textiles to a German customer for which it would like to get Rs 10,00,000 cash However keeping in view the competitive factors it has to give 90-day credit. The domestic interest rate is 8% p.a. The firm should charge Rs 10,20,000

(= 1.02 x 10,00,000) for 90-day credit sale. How should it translate this into a EUR denominated price? The interest rate in Eurozone is 4% p.a.

The spot EUR/INR exchange rate is 52.50

Obviously it is wrong to calculate the EUR price as (1,020,000/52.50) = EUR 19,428.57. To see why, suppose the export bill is discounted with a German bank, the proceeds will be EUR (19,428.57/1.01) = EUR 19,236.21 which converted into rupees will be worth Rs 10,09,901 (=19,236.21x 52.50) whereas the firm's target is to realise Rs 10,00,000. To realise this, the firm should quote EUR [(10,00,000/52.5) x 1.01) = EUR 19,238.10. Thus the appropriate rate for translating the price is (10,20,000/19,238.10) = 53.0198

But this is precisely the forward rate arrived at by the interest parity theorem viz.

(52.50)(1.02/1.01) = 53.0198

Of course the example overlooks the fact that in a context like the Indian market the forward premiums/discounts are not necessarily determined by interest rate differentials and hence the actual forward rate may be quite different from the interest parity rate. However, the point we wish *w* emphasize is that the appropriate rate is the interest parity forward rate and not today's spot rate. The major convertible currencies departures from interest parity are well within the bounds imposed by transaction costs.

It must be emphasized that forward hedging of contractual exposures does not stabilize a firms cash flows. Suppose an Indian exporter who has continuing exports to the USA invoices his exports in US dollars and maintains US dollar prices so as to retain its competitive position in the US market. Each m~ receivable is sold forward. The firm's rupee cash flows will then fluctuate as the USD/INR forward the fluctuations; if it does not hedge, the fluctuations in the cash flow will be proportional to the changes in the spot rate. Empirically, the volatility of the forward rate is not significantly less than the spot rate. It could also remove its contractual

exposure by invoicing each shipment in rupees on some kind of a cost plus basis. Now, the dollar prices will fluctuate and so will the firm's export volume and market share. Thus hedging a contractual exposure just removes the uncertainty regarding the home currency value of that particular item; it cannot stabilize the firm's cash flows or profits.

Choice of Invoice Currency

This is also the appropriate place to dispose off the issue of the choice of invoice currency insofar as it bears on transactions exposure. Choice of invoice currency has important implications for operating exposure of the exporter/importer but the foreign exchange risk dimension is relatively unimportant. Consider the Indian exporter of textiles to Germany in the above example. After the quantity and price of exports have been negotiated, it does not matter whether the invoice is in rupees or Euros provided both parties have access to efficient forward markets. If the invoice is in EUR, the exporter faces exposure which can be covered in the forward market as seen above; if it is in rupees, the importer can buy Rs 10,20,000 in the forward market at a total cost of EUR 19,238.10 to be incurred three months from today. Problems arise if a well functioning forward market does not exist or cannot be accessed by one of the parties. With controls on capital movements for instance, the spot-forward differential in the case of the rupee is not always very closely related to the interest rate differential. Suppose the EUR/INR forward rate is 52.75. Now the Indian exporter would like to quote a price of EUR 19,336.49 (= 10,20,000/52.75) for a 90-day credit sale or would prefer to invoice in rupees. To the German buyer this would mean an annualized interest cost of 6.06%.4 This might make the deal unattractive to the importer. A price of EUR 19,238.10 would make the deal unattractive to the exporter because this would imply a cost of funds {[19,238.10/19047.62) – 1.0]*4.0} or 5.92% when in fact it is 8%.

The choice of currency of invoicing is often dictated by marketing considerations and exchange control factors. An exporter may wish to Invoice in the buyer's currency to gain competitive advantage. Invoicing in a weak currency-which may be neither the buyer's nor the seller's currency-may be an indirect way of offering discounts which otherwise may be difficult to offer. In some countries, due to exchange control, the only way a company can take

a position in a currency is by invoicing a trade transaction in that currency. As mentioned above, if forward markets in a particular currency are thin or non-existent it is better to avoid invoicing in that currency since the exposure cannot be effectively hedged. Finally, it should be kept in mind that any gains from the choice of currency of invoicing made by one party are always at the expense of the other party. Hence for invoicing intra-company transactions as between different subsidiaries of a parent company, overall tax considerations and minority interests of the local shareholders will playa significant role.

Exposures with Uncertain Timing

Sometimes the timing of the exposure may be uncertain though the amount is known with certainty. Suppose a Hong Kong firm has ordered machinery from a Swiss supplier worth CHF 5,000,000. Payment is to be made when the shipment arrives and documents are handed over to the importer. There is some uncertainty regarding the exact time of arrival of the shipment. It may arrive at any time during the fourth month after a firm order is placed.

Option forwards are generally an expensive device to deal with exposures with uncertain timing. Using swaps may turn out to be cheaper. Thus suppose, on May 1 a company expects to settle a foreign currency payment on August 1 but feels that the payment date may get postponed by as much as three months. instead of buying a 3-6 option forward, it can buy the foreign currency forward for delivery on August!; suppose by June 15, it knows with certainty that the payment will have to be settled on September 10; It can do a forward-forward swap i.e. sell the foreign currency for delivery August 1 and buy for delivery September 10. The first leg of the swap-the sale-cancels its outstanding forward commitment to buy while the other leg takes care of the payment due on September 10.

Cancellation of Forward Contracts

Cancellation of forward contracts at the customer's option is also possible. The customer may cancel the entire amount-e.g. when the underlying export or import deal could not materialize-or a part as when the actual payment to be made or received is less than the amount booked in the forward contract. For a forward sale (by the customer to the bank), cancellation on due date is deemed as purchase by the bank at the contracted forward rate and a simultaneous sale at the

then ruling spot rate. If the currency has appreciated beyond the forward rate, the difference is recovered from the customer any gain is paid to the customer. For a forward purchase, cancellation is deemed as a sale by the bank at the contract rate and a simultaneous purchase at the spot rate. Any difference in favour of the customer is paid to the customer; any loss is recovered from the customer. In both cases the bank will charge a flat fee over and above any gains/ losses.

For cancellation before the due date, an opposite forward contract is deemed to have been entered into. Thus suppose a firm buys $20,000 three-month forward on September 12 at a rate of Rs 45.50. The due date is December 12. On November 12, the firm would like to cancel the entire contract. The bank would deem this as a one-month forward purchase from the customer and do the cancellation at the one-month forward purchase rate on November 12. It would make a one month forward sale to the market to cover its original three month forward purchase from the market (which had offset its three month sale to the firm). A forward sale (by the customer to the bank) is cancelled at the relevant forward sale rate. Once again a flat fee is charged apart from any difference paid to or recovered from the customer.

LESSON - 4

OPERATING EXPOSURE

Objectives: In this lesson, we will introduce you operating exposure and exchange rate. After you workout this lesson, you should be able to:

- Know the meaning of operating exposure and exchange rate.
- Understand the use of operating exposure and exchange rate.

OPERATING EXPOSURE AND REAL EXCHANGE RATE

Operating exposure arises mainly on account of changes in real exchange rates. Consider an example to reinforce this point.

- An Indian firm exports carpets to the UK. At the beginning of the year, the exchange rate is Rs 75.00 per pound. Competitive considerations suggest that the exporter should invoice in sterling and price the carpets at £200. At this price it is able to sell

100 carpets per month. The firm's costs are all domestic at Rs 9,000 per carpet. Thus its operating margin is Rs 6,000 per unit. Over the year, UK prices increase by 5% and Indian prices by 8%. It can raise the UK price to £210 without affecting sales. Its operating costs increase to Rs 9,720. To maintain operating margin in real terms i.e. Rs 6,480 per unit in end-of-the year prices, it must get Rs 16,200 from each unit. If the exchange rate appreciates to Rs 77.1429, the firm is unaffected. But this means that real exchange rate must remain unchanged since 77.1429 = 75.00(1.08/1.05).

This example makes it clear that operating exposure depends upon:

- Change in nominal exchange rate
- Change in the selling price (output price)
- Change in the quantity of output sold
- Change in operating costs i.e. quantities and prices of inputs.

Changes in real exchange rates are among the consequences of real macro-economic shocks like for instance changes in oil prices. Consumers, firms, labour and governments react to such shocks by altering their buying patterns, wage demands, input choices, technologies, taxes, subsidies. The magnitude and speed of response depends on factors like magnitude of the shock, whether it is perceived to be permanent or transitory, and possibilities of substitution in consumption and production, bargaining power of unions, market structures and political compulsions. Real exchange rate changes alter both the relative prices faced by consumers and their incomes.

For instance, a real appreciation of the US dollar versus the Indian rupee makes American imports more expensive relative to their home made substitutes (and Indian exports to US cheaper than their substitutes made in the US). However, such an appreciation also reduces real incomes of Indian consumers (and in. creases real incomes of American consumers). What will be the net impact on the sales of a firm which sells in both the markets? Obviously it depends upon the price and income elasticity of demand for its products in the two markets and the relative share of the two markets in its total sales.

Real exchange rate changes may also give a relative cost advantage to some firms over their

competitors. As we will see below, the extent of this advantage is largely determined by the degree of mismatch in the currency composition of recurring costs of a firm and its competitors. Such a cost advantages may or may not be translated into competitive price cutting.

Real exchange rate changes will generally have an impact on the costs of a firm's suppliers. Their reactions will be determined by the degree of market power they enjoy and availability of substitutes.

Long lasting changes in real exchange rates produce persistent trade imbalances forcing governments to take corrective actions such as import restraints, export subsidies, controls on capital flows and shifts in monetary policies. Some or all of these can affect a firm's cash flows.

Finally, it must be borne in mind that changes in real exchange rates do not occur in isolation. Usually they are accompanied by changes in real interest rates. This factor may influence not only expected future cash flows but also the discount rate used to find the PV of these cash flows.

> Operating exposure can be looked upon as a combination of two effects-the conversion effect and the competitive effect. The conversion effect refers to the changes in home currency value of a given foreign currency cash flow while the competitive effect refers to the impact of exchange rate changes arising out of changes in prices and quantities. The former is similar to transactions exposure while a meaningful analysis of the latter must inquire into the factors which determine the price impact and the quantity impact of ex-change rate changes. The most important consideration here is the structure of the markets in which the sells its output and buys its inputs.

In the example above, output price increased in proportion to foreign inflation, output quantity remained unchanged, input costs went up in proportion to domestic inflation and the nominal exchange rate depreciated in line with relative PPP. In practice, one or more of these happy circumstances do not obtain giving, 10 operating exposure. It should also be remembered that the concept of real exchange rate uses some aggregate price index to measure inflation. It is possible that even if exchange rate movements reflect inflation differentials measured by aggregate price indices, the prices of a firm's inputs and outputs may not move in line with inflation rates. Relative price changes in response to exchange rate fluctuations can create

exposure even if real exchange rate remains constant.

The table below provides some data on the nominal and real effective exchange rate of the rupee with van, base periods.

Year/ Month/Day	Base: 1991-92 (April-March) = 100		Base: 1993-94 (April-March+= 100		Base: 1993-94 (April-March+= 100	
	Near	Reer	Near	Reer	Near	Reer
1	2	3	4	5	6	7
1990-91	133.07	121.64	175.04	141.69	259.84	141.99
1991-92	100.00	100.00	131.54	116.48	195.26	117.75
1992-93	89.57	96.42	117.81	112.31	174.89	112.38
1993-94	76.02	85.85	100.00	100.00	148.45	100.40
1993-94	76.02	85.85	100.00	100.00	148.45	100.40
1994-95	73.06	90.23	96.09	105.81	142.85	106.24
1995-96	66.67	87.23	87.69	102.29	130.19	102.71
1996-97	65.67	88.20	86.38	103.43	128.38	106.26
1997-98	65.71	9.25	86.43	105.84	128.38	106.26
1998-99	58.12	83.38	76.45	97.79	113.49	98.18
1999-00	58.42	82.49	74.22	96.74	110.17	97.13
2000-01	56.08	85.92	73.77	100.76	109.51	10 1.18
2001-02	55.64	87.05	73.18	102.09	108.64	102.49
2002-03	52.29	83.46	68.78	97.88	102.11	98.24
2003-04	51.21	84.93	67.36	99.60	100.00	100.00
2004-05 (P)	50.24	86.90	66.09	101.91	98.11	102.32
2002-03 September	52.25	83.72	68.73	98.18	102.03	98.58
October	52.56	84.24	69.14	98.79	102.64	99.18
November	52.15	83.76	68.59	98.23	101.82	98.61
December	52.00	83.10	68.40	97.46	10 1.55	97.86
January	51.24	82.11	67.40	96.30	100.06	96.68
February	51.33	82.61	67.51	96.88	100.21	97.27
March	51.48	83.61	67.72	98.06	100.55	98.47
2003-04 April	51.83	84.88	68.18	99.55	101.20	99.93
May	50.85	83.49	66.88	97.91	99.29	98.31

These data indicate that since 1985 there was been real appreciation of the rupee between 1993-94 and 1994-95 and again a very mild appreciation between 1995-96 and 1996-97. Otherwise the rupee has by and large depreciated in real terms. Conventional wisdom says that this should have benefited exporters and producers of import-competing goods and services and hurt importers.

In practice, unanticipated exchange rate changes are a part of macro-economic risks faced by a firm. A relevant question is the degree to which exchange rate changes get reflected in the changes in prices of goods and services. This is known as "pass through". Suppose an Indian firm imports tennis racquets from US. The US price is $50 and the exchange rate is Rs 44.00. The importer sells the racquets at a price of Rs 2,750 and earns a margin of 25%. Now suppose the exchange rate depreciates to Rs 45. The rupee price would increase to [(45/44)2,750] or Rs 2,812.50 and the importer's margin would be unchanged at 25%. However, competitive factors may prevent full pass through subjecting the importer to operating exposure. Also, even in the absence of competitive pressures, decision and implementation would generally mean that the full impact of exchange rate changes does not get absorbed in price changes immediately but only after a lag, the length of which depends on many factors. The time profile of 'pass through" is also relevant in determining the degree of operating exposure.

CURRENCY OF INVOICING. QUANTITY INERTIA AND OPERATING EXPOSURE

In our analysis so far we have assumed that prices and quantities respond instantaneously to changes in exchange rates. In practice, a substantial amount of trade involves contractual arrangements between the exporter and the importer wherein both the quantities supplied and prices-in either party's currency-are fixed for sometime. In addition, even in the absence of contracts, while prices respond to exchange rate changes rather quickly, quantity response to price changes is likely to be considerably slower. .

Consider the case of an Indian exporter who has entered into a one-year contract to supply a fixed quantity of leather jackets per month to a French importer, at a fixed rupee price per unit.

This means that on the revenue side, operating exposure has been totally eliminated. On the cost side however exposure continues. When rupee depreciates in real terms, rupee revenues remain fixed while rupee costs may rise because of imported inputs, wage increases as well as general inflation. Such an exporter is adversely affected by a real depreciation of the rupee.6 By the same logic, an importer may temporarily gain from a depreciation of the home currency. What if the price had been negotiated in French francs instead of the rupee? There is transactions exposure on the revenue side. A depreciation of the rupee will increase rupee revenues by the full extent of depreciation while costs may not go up to the same extent. In terms of the h franc, revenue is now fixed whereas costs are not. Despite rupee depreciation, costs in terms of h franc can increase e.g. suppose the French inflation is at 5%, Indian inflation at 15% and the rupee depreciates 12% p.a. If all costs are rupee costs and they keep pace with home inflation, they will increase in terms of French franc.

Look at the situation from the French importer's point of view. Invoicing in rupees means there is uncertainty both on cost and revenue side. If rupee appreciates, the importer must pay a larger amount of French francs. However, unless the French firm faces stiff competition from domestic producers, it will be to increase its selling price in proportion to the rupee appreciation without any significant loss of sales. The firm faces transactions exposure on the cost side (which can be covered) and operating exposure on the revenue side. If it agrees to be invoiced in French franc and the rupee appreciates, it will be better off but if rupee depreciates, it will suffer particularly if other competitors also import from India and agreed to be invoiced in rupees. On balance, it should prefer to be invoiced in rupees. Our analysis of Indian exporter indicates that if India is prone to very high rates of domestic inflation, the exporter would prefer to invoice in French francs.

Choice of invoicing currency has other dimensions. If the importer does not have easy access to forward markets or if bid-ask spreads in forward markets are very large, an exporter insisting on invoicing in his currency will face a competitive disadvantage if other exporters (from the same or another country) willing to accommodate the importer by invoicing in the latter's currency. The regularities in invoicing patterns in international trade found by

Grassman Bilson (1983) provide a theoretical explanation of these patterns and their implications for the relation between the current account and the exchange rate.

We will conclude this section with a simple numerical example of effects of contracting and invoicing an exporter's profits.

- An Indian jewellery exporter has entered into an agreement with a Dutch buyer to supply 50 neck laces per month over the next year. The Dutch party has agreed to be invoiced in rupees at Rs 50,000 per necklace. At the time of initiating the agreement the EURJINR exchange rate is 50.00. The Indian firm estimates that it will need to import raw gemstones worth EUR 500 per necklace from Holland and other operating costs would be Rs 5,000 per unit. Soon after the contract is signed, the rupee depreciates to Rs 54.00 per Euro.

By invoicing in rupees, the exporter has removed exposure from the revenue side. On the cost side, there is transactions exposure of EUR 25,000 per month. At the time of contracting the expected annual profit is Rs {(50,000 x 50 x 12) - [5,000 + (500 x 50)](50 x 12)} = Rs 1,20,00,000

As a result of devaluation the actual profit will be

Rs [3,00,00,000 - 1,92,00,000] = Rs 1,08,00,000

When the first contract ends, the exporter is subject to operating exposure. He renegotiates the price at Rs 53,250. In Euros this translates to EUR 986. At this price, the Dutch buyer is willing to take 55 pieces per month.1o In the meanwhile, the euro cost of the raw stones has gone up by 5% to EUR 525, and other operating costs have gone up by 10% to Rs 5,500 per unit. The exporter's profits are now expected to be Rs {(53,250 x 55 x 12) - [(525 x 54) + 5,500](55 x 12)} = Rs 1,28,04,000

In inflation adjusted terms, profits have declined to Rs 1,16,40,000 (=1,28,04,000/1.1) despite a real depreciation of the rupee. You can convince yourself that if the exporter had raised the price such that in guilder terms it had kept pace with Dutch inflation, the firm's rupee turnover would have declined, 11 but its operating profit measured in rupees would have increased in real terms compared to the pre-devaluation situation.

COPING WITH OPERATING EXPOSURE

A variety of external and internal devices are available to a firm to hedge its transactions exposure. When it comes to operating exposure, none of these instruments are of much use in reducing it. Forward and futures contracts, options and money market cover can protect a firm from nominal exchange rate effects on contractually fixed foreign currency assets, liabilities and cash flows. As we have seen above, to the extent the firm can correctly identify and estimate its operating exposure to exchange rates, it can in principle use forward contracts to hedge. The difficulty as we have seen above is in identifying and estimating the exposure coefficients. Also, operating exposure covers a much longer horizon that contractual transactions exposures; long-maturity forward contracts are not easily available even in major currencies.

Given these difficulties in using financial hedges, operating exposure must be managed by altering the firm's operations-pricing, choice of markets, sourcing, location of production, etc. This requires considerable flexibility in these areas. Not all businesses may permit such flexibility in the sense that costs associated with shifting location of production facilities, changing sourcing, etc. may be quite high. We briefly discuss below how each of the above functional groups might contribute to reduction of operating exposure.

- As we have seen above, operating exposure depends upon price elasticity of demand. In the area of marketing, improved knowledge of customers' price sensitivity, competitive response, and effect of non-price variables on sales, etc. is of great importance. The firm can reduce the adverse effects of exchange rate changes on its revenue by moving into product lines which are fewer prices sensitive and by countering the effect of increased prices by means of other competitive weapons such as local advertising and promotion. Note that shifting product-market combinations is a long-term strategic decision.
- If inputs are purchased in markets where the local content in their costs is high, exchange rate changes will significantly alter the relative costs of sourcing from alternative sources. When the input markets are global in scope e.g. crude petroleum

and petroleum products, sourcing decisions are relatively less important. In some cases, use of commodity options and futures may enable the firm to hedge commodity price risk.

- Shifting the location of production to countries whose currencies have depreciated in real terms can reduce the adverse impact of exchange rate changes provided production costs in different locations have a large local content (e.g. labour) and economies of scale are relatively less important.

Frequent shifts in product-market combination, sourcing and location of production facilities imply changing currency composition of costs and revenues. This will call for a more quick-footed response from the treasury in terms of short-term management of funds and borrowings.

A number of authors have suggested that currency matching of inputs and outputs will enable the firm to reduce its operating exposure i.e. reduce the variance of its profits. For instance, Pringle and Connolly (1993) argue that "Economic exposure results most directly in cases of direct exposure in which there is an imbalance in revenue and cost streams with respect to currency-that is when the revenue and cost 'currency footprints' do not match. There are basically two possible ways to hedge economic exposure: operational hedges and financial hedges. An example of an operational hedge is a change in sourcing to better match revenue and cost currency footprints".

LESSON - 5

INTEREST RATE EXPOSURE

Objectives: In this lesson, we will introduce you interest rate exposure. After you workout this lesson, you should be able to:

- Know the meaning of interest rate exposure.
- Understand the application of interest rate exposure.

MANAGEMENT OF INTEREST RATE EXPOSURE

The important thing to note is that there is no exchange of principal amount. If the settlement

rate on the settlement date[5] is above the contract rate, the seller compensates the buyer for the difference in interest on the agreed upon principal amount for the duration of the period in the contract. Conversely, if the settlement rate is below the contract rate, the buyer compensates the seller.

The compensation is paid up-front on the settlement day and therefore has to be suitably discounted since interest payment on short-term loans is at maturity of the loan. One of the following two formulas is used for calculating settlement payment from the seller to the buyer:

$P = (L - R) \times DF \times A / [(B \times 100) + (DF \times L)]$

$P = (R - L) \times DF \times A / [(B \times 100) + (DF \times L)]$

This means that the FRA is only a hedge; the actual underlying deposit or loan is a separate transaction which may not be-and most often is not-with the same bank that traded the FRA.

The settlement rate is the rate with which the contract rate is to be compared to compute the settlement payment. In each market there is a clearly specified procedure to determine the settlement rate. The fixing date is the day on which the settlement rate is determined. For US dollar FRAs, fixing date is the settlement date itself i.e. t=S. while for other currencies it is two business days before the settlement date. In the Indian rupee market it is one day before the settlement date. See calculation of settlement payment discussed below.

Here the notation is

L: The settlement rate (%)

R: The contract rate (%)

DF: The number of days in the contract period

A: The notional principal

B: Day count basis (360 or 365)

The first formula is used when $L > R$ and the payment P is from the FRA seller to the FRA buyer; the second formula is used when $L < R$ and the payment is from the buyer to the seller. In effect, if the settlement rate is higher, the FRA seller compensates the buyer *for* the extra interest; if the settlement rate is lower, the buyer surrenders the interest saving to the seller.[6] Let

us illustrate this with an example.

Consider the 6-9 FRA quotation given above:

USD 6/9 months: 7.20-7.30% p.a.

Suppose a company which intends to take a 3-month loan starting 6 months from now wishes to lock in its borrowing rate. It buys the FRA from the bank which is giving the above FRA quotes, at the banks ask rate of 7.30% *for* an underlying notional principal of USD 5 million. Suppose on the settlement date, the reference rate e.g. 3-month USD LIBOR is 8.5%. The number of days in the contract period is 91 and the basis is 360 days. The bank will have to pay the company

$$\frac{(L - R) \times DF \times A}{[(B \times 100) + (DF \times L)]}$$

$$= \text{USD } [(8.50 - 7.30)(91)(5{,}000{,}000)]/[(36000) + (91 \times 8.50)]$$

$$= \text{USD } 14{,}847.65$$

The numerator is the extra interest the company will have to pay because the actual borrowing rate is higher than the contract rate. This will be paid at the expiry of the loan. The FRA seller pays the company the PV of this discounted at the actual rate viz. 8.5% for 91 days.

In the global financial markets, FRAs are traded in all convertible currencies. The minimum principal amount is around 5 million units of a currency. Like the forward exchange contract, FRAs are an over the counter product and therefore not standardized.

In a forward foreign currency contract, the parties fix the rate of exchange between two currencies for future delivery. In a FRA, the rate of interest on a future borrowing or lending is locked in. Just as the forward exchange rate reflects the market's expectations regarding the future spot rate, the rate fixed in an FRA reflects the market's expectations of future interest rates.

The expectations theory of the term structure says that forward interest rates implicit in a given term structure equal the expected future spot interest rates. Thus, the 3 month rate expected to

rule 6 months from today is implied by the 6 and 9 months actual rates today: where, as usual, the superscript "e" denotes expected. In general, given the spot interest rates for a short and a long maturity, the rate expected to rule for the period between the end of short maturity and the end of long maturity is given by *DS, DL* and *DF* are as explained above. *B* is the day count basis (360 or 365 days). Interest rates $i_{o,s}$ $i_{O,L}$ stated as fractions, (not per cent) are the spot interest rates at time *t* = 0 *for* maturities Sand *L* respectively. When L> R the FRA buyer incurs extra interest cost equal to [(L - *R)*/100](A)(DF/B). This is discounted by a discount factor equal to [1 + (L/100)(DF/B)], This gives the formula above.

Note that the rate so calculated will only serve as a benchmark for a FRA quotation. The actual quote will be influenced by demand-supply conditions in he market and the market's expectations.

We will now illustrate applications of FRAs for borrowers and investors the former to lock in the cost of short term borrowing and the latter to lock in the return on short-term investment.

FRA for a Borrower

A firm plans to borrow £5 million for 3 months, 6 months from now. The current 3 month Euro-sterling rates are 10.50-10.75%. The firm has to pay a spread of 25 b.p. (0.25%) over LIB OR. The treasurer is apprehensive about the possibility of rates rising over the coming six months. He wishes to lock in the cost of loan. Sterling 6/9 FRA is being offered at 10.8750%. The treasurer decides to buy it. We will work out the firm's cost of borrowing under alternative scenarios of 3month rates 6 months from today. The anticipated borrowing is for 91 days.

Scenario 1: Six months later, sterling settlement LIBOR is 11.50. The bank, which sold the FRA compensates the firm by immediately paying an amount A calculated as

A = (0.1150 - 0.10875) x 5,000,000 x (91/365) / [1 + 0.1150(91/365)]

= £7,573.94

Notice that the upfront payment by the FRA seller equals the difference in interest on £5 million, for 91 days at the actual LIBOR and the contracted rate, discounted at the actual LIBOR. The discounting is necessary because the firm will be paying interest on its loan at maturity (i.e. at the end of 91 days from the settlement date) while the bank pays the difference

on the settlement date. The firm borrows £5 million at 11.75% including a spread of 25 b.p. The compensation received can be invested at 11.25% (This is the LIBID). The cost of the loan is Interest on 5 million at 11.75% for 91 days

$$= (0.1175) \times 5{,}000{,}000 \times (91/365)$$

$$= 146{,}472.60$$

From this we must subtract the compounded value of the compensation received from the FRA selling bank. This is given by

$$(7573.94) \times [1 + 0.1125(91/365)]$$

$$= 7{,}786.37$$

So the net cost is £1, 38,686.23 which works out to an annual rate of 11.1254%. This is the rate locked in by the firm (10.8750 + 0.25 = 11.1250).

Scenario 2: 6 months later the settlement rate LIBOR is 10.25%

The firm pays the bank an amount A given by

$$A = \frac{(0.10875 - 0.1025) \times 5{,}000{,}000 \times (91/365)}{[1+0.1025(91/365)]} = 7{,}596.95$$

The firm has to borrow this at 10.50% in addition to the loan of £5 million. Its total cost now consists of interest on 5 million plus the repayment of the loan taken to pay the compensation. This works out to £1 38,686.23 which is again an annual cost of 11.1254%.

FRA for an Investor

A fund manager is expecting to have $5 million 3 months from now to invest in a 3 month (92 days) Eurodollar deposit. The current 3 month rates are 8.25-8.375%. The $3/6 FRA bid rate is 8.1250. The manager sells a FRA for $5 million.

1. 3 months later, the settlement rate is 7.50% The bank pays the manager an amount A given by

$$A = \frac{(0.08125 - 0.0750)(5{,}000{,}000)(92/360)}{[1 + 0.075(92/360)]} = \$7\,835\,92$$

The manager invests this along with $5 million at 7.50%. His total return is $103,819.44 which is 8.125% annual return contracted in the FRA.

You can check out that if the settlement rate had instead been above the contract rate, the investor would have had to pay the bank and his net return would again be 8.125%.

FRAs, like forward foreign exchange contracts are a conservative way of hedging exposure. It removes ~l uncertainty from cost of borrowing or rate of return on investment. The relationship between a FRA and an interest rate futures contract is exactly~ analogous to that between a forward foreign currency contract and a currency futures contract. Like in a currency forward, FRAs imply credit risk for both parties though inaFRA the risk is limited only to the amount of settlement payment since there is no actual borrowing or lending transaction involved. Also, being an OTC product, FRAs are not liquid and compared to futures, the bid-offer spreads tend to be wider.

There is another product similar to a FRA for locking in borrowing cost or the return on investment. This is known as a "forward-forward" contract. Here too, the two parties agree to fix an interest rate for a, lending or a borrowing transaction covering a specific period, starting at a specified future time; however, unlike a FRA, here the lending or borrowing is not notional. There is actually a loan or deposit transaction at the contract rate.

Banks who make a market in FRAs find interest rate futures such as Eurodollar futures a convenient hedging device for hedging their FRA commitments. Technically, a bank which sells say a 3/6 FRA or forward-forward, can borrow funds for 6 months, invest them for the first three months and then "lend" them to the FRA buyer. Alternatively, it can hedge itself against rising interest rates by selling eurodollar or similar futures. FRAs (like futures) can also be used as a form of highly leveraged speculation on interest rate movements. Such speculative use of FRAs is largely confined to market making banks.

FRAs were introduced in the Indian money market in 1999. The Reserve Bank of India circulated the guidelines applicable to FRAs in a circular dated July 7, 1999. The benchmark rate may be any domestic money market rate such as T-bill yield or relevant MIBOR (Mumbai Interbank Offered Rate) though the interbank term money market has not yet developed sufficient liquidity. FRA is viewed as an exchange of interest payments on a notional principal wherein the FRA buyer agrees to pay interest at a fixed rate (the contract

rate) while the seller pays interest at the settlement rate. Settlement is done by payment of the net difference by one party to the other. Here is an example:

Bank A and Bank B enter into a 6 x 9 FRA. Bank A pays fixed rate at 6.50%. Bank B pays a rate based on 91 day T -bill yield fixed the day before the settlement date.

Other details:

- Notional principal = Rs. 10 crore
- FRA start and settlement date 10/12/04, Maturity date 10/3/05
- T bill yield on fixing date (say 9/12/04) = 5.50%
- Determine cash flow at settlement (assume discount rate as 7%)

The calculations are as follows:

(a) Interest payable by bank A = (10 crore) (0.065) (91/365) = Rs 16,20,547.9

(b) Interest payable by bank B = (10 crore) (0.055) (91/365) = Rs 1,371,232.8

(c) Net payable by bank A on maturity date {(a) - (b)} = Rs 24,9315.1

(d) Discounting (c) to settlement date

= (c)/(1+ discount rate*discount period) .

= Rs 2,49,315.1/[1 + 0.07(91/365)] = Rs 2,45,038.67

Amount payable on settlement date = Rs 2,45,038.67 payable by Bank A.

RBI guidelines state that corporate are permitted to do FRAs only to hedge underlying exposures while market maker banks can take on uncovered positions within limits specified by their boards and vetted by RBI. Capital adequacy norms are applicable and the minimum required capital ratio would depend upon the underlying notional principal, the tenor of the agreement and the type of counterparty.

INTEREST RATE OPTIONS

A less conservative hedging device for interest rate exposure is interest rate options. A call option on interest rate gives the holder the right to borrow funds for a specified duration at a specified interest rate without an obligation to do so. A put option on interest rate gives the holder the right to invest funds for a specified duration at a specified return without an obligation to do so. In both cases, the buyer of the option must pay the seller an upfront

premium stated as a fraction of the face value of the contract or the underlying notional principal.

An interest rate cap consists of a series of call options on interest rate or a portfolio of calls. A cap protects the borrower from increase in interest rates at each reset date in a medium-to-Iong-term floating rate liability. Similarly, an interest rate floor is a series or portfolio of put options on interest rate which protects a lender against fall in interest rate on rate rest dates of a floating rate asset. An interest rate collar is a combination of a cap and a floor.

In the following subsection we will analyze simple interest rate options.

A Call Option on Interest Rate

Consider first a European call option on 6-month LIBOR. The contract specifications are as follows:

Time to expiry: 3 months (say 92 days)

Underlying Interest Rate: 6-month LIBOR

Strike Rate: 9%

Face Value: $5 million

Premium or Option Value: 50 b.p. (0.5% of face value) = $25,000

The current three and six month LIBORS are 8.60 and 8.75% respectively. Let us work out the pay-off to a long position in this option. Assume that the option has been purchased by a firm, which needs to borrow $5 million for six months in three months time.

The pay-off to the holder depends upon the value of the 6 month LIBOR 3 months later:

The option is not exercised. The firm borrows in the market. The pay-off is a loss of compounded value of the premium paid three months ago. The present value of the loss (at the time of option expiry) is the premium compounded for three months at the 3-month rate, which prevailed at option initiation. In the above example it is

$$\$25,000[1 + 0.0860(92/360)] = \$25,549.44$$

If the loss is to be reckoned at the maturity of the loan, this amount must be further compounded for 6 months at the 6-month LIBOR at the time the option expires.

The option is exercised. The option writer has to pay the option buyer an amount, which

equals the difference in interest on $5 million for 6 months at today's 6 month LIBOR and the strike rate 9%:

$$(i - 0.09) \times 5{,}000{,}000 \times (182/360)$$

where i is the 6-month LIBOR at option expiry.

Thus suppose 6-month LIBOR at option expiry is 10%, the option writer has to pay

$$(0.10 - 0.09)(5{,}000{,}000)(182/360) = \$25{,}277.78$$

This amount would be paid not at the time of exercise of the option but at the maturity of the loan 6 months later. Alternatively, its discounted value using the 6-month LIBOR at option exercise can be paid at the time of exercise.

The break-even rate is defined as that value of LIBOR at option expiry at which the borrower would be indifferent between having and not having the call option i.e. the total cash outflow at loan maturity would be identical with and without the option. Obviously, because of the upfront premium, the break-even rate must be higher than the strike rate in the option. It is the value of i, which satisfies the following equality:

$$A[1 + i(M/360)] = A[1 + R(M/360)] + C[1 + i_{t,T}\,(T/360)][\,1 + i(M/360)]$$

where A is the underlying principal, R is the strike rate, it, T is the T-day LIBOR at time t when the option is bought, C is the premium paid at time t, and, T and M are number of days to option expiry and maturity of the underlying interest rate. For the example at hand, A = 5,000,000, R = 0.09, it, T= 0.086, C = 25,000, T = 92 and M = 182. The breakeven rate works out to 10.06%.[9] lf the 6-month LIBOR at option expiry is above (below) the break-even rate, the call buyer makes a net gain (loss).

A Put Option on Interest Rate

Consider an investor who expects to have surplus cash 3 months from now to be invested in a 3-month Euro-deposit. The amount involved is $10 million. The current 3-month rate is 10.50%, which the investor considers to be satisfactory. A put option on LIB OR is available with the following features:

Maturity : 3 months (91 days)

Strike Rate : 10.50%

Face Value : $10 million

Underlying : 3-month LIBOR.

Premium : 25 b.p. (0.25% of face value) = $25,000

To hedge the risk, the investor goes long in the put. Three months later, if the 3-month LIBOR is less than 10.50% he will exercise the option or else let it lapse. Suppose the 3-month LIBOR at option expiry is 9.5%. The option writer must pay the option buyer a sum equal to

$$(0.105 - 0.095)(10{,}000{,}000)(91/360) = \$25{,}277.78$$

This is paid 3 months after option exercise or its discounted value at option exercise.

The break-even rate is the value of i satisfying the following equality:

$$A[1 + i(M/360)] = A[1 + R(M/360)] - P[1 + i_{t,T}\,(T/360)][1 + i(M/360)]$$

Where P is the put premium and other notation is same as in the case of a call option. In the example, A = 10 million, R = 0.105, T = 91, M = 91, $i_{t,T}$= 0.105 and P = 25,000. The break-even rate works out to 9.46%. If the 3-month LIBOR 3 months later are less than this, the put buyer makes a net gain.

Interest rate options are thus similar to currency options in their pay-off profiles and hedging applications. Valuation of these options also has many similarities with valuation of currency options.

A Put-call Parity Relation

It is easy to see that a long position in a call option with strike rate R and a short position in a put with the same strike and same maturity, both on the same underlying index (such as 6-month LIBOR), are equivalent to a long position in an FRA at RY to prove this we proceed as follows. Consider the following three securities at time t:

1. A call option on M-day LIBOR, at strike rate R, maturing T-days from today, face value A, premium C.

2. A put option on M-day LIB OR, at strike rate R, maturing T-days from today, face value A, premium P.

3. An FRA, on M-day LIB OR, maturing T-days from today, face value A, contract rate R.

Thus irrespective of the outcome you gain. The discounted value of the gain at time t (today) is (P - C) as it should be since the FRA is costless.

Now suppose C > P. You can verify that by selling a call, buying a put and buying an FRA profit can be made irrespective of what the interest rate is at option expiry.

Thus, if the strike rates in the put and the call both equal the current rate in a corresponding FRA, the call and put must have identical premia. To put it in another manner, a long position in a call and a short position in a put both with same maturity, the same strike rate and the same underlying interest rate is equivalent to buying an FRA 'on the same interest rate at a contract rate equal to the strike rate in the put and call.

INTEREST RATE CAPS, FLOORS AND COLLARS

Interest rate caps and floors are portfolios respectively, simple calls and puts on interest rate. We will begin by looking at examples of applications of caps and floors.

Interest Rate Caps

A corporation borrowing medium-term floating rate funds wishes to protect itself against the risk of rising interest rates. It can do so by buying an interest rate cap for the duration of the loan. The following example illustrates the working of this instrument.

A corporation has borrowed $50 million on floating rate basis for 3 years. The interest rate reset dates are March 1 and September 1. The spread over LIBOR is 25 b.p. (0.25%). It is a bullet loan I (i.e. repayment of the entire principal is at maturity).

It buys a 3 year cap on 6-month LIBOR with the following features: lf i > R, your gain from exercising the call exactly offsets what you have to pay the buyer of the FRA leaving you with the difference between the compounded values of the put premium you received and the call premium you paid. The put you sold will lapse.

If $i \leq R$, the put will be exercised against you but the loss will be offset by your gain from the

FRA. Your call will lapse again leaving you with the same net gain. In the equation that immediately follows, the first term is the compounded value of the call option premium you paid. The second term is the gain from exercising the call, the third term is the payment you have to make to the FRA buyer and the last term is the compounded value of the put option premium you received.

Term : 3 years

Underlying : 6-month LIBOR

Reset Dates : March 1, September 1

Strike Rate : 9%

Face Value : $50 million

Up-Front Fee : 2% of face value or $1 million

The cap is traded on February 27, 2000, the settlement date is March 1,2000. The current level of 6-month LIBOR is 9%.

Since the rate applicable to the first 6-month period is known, there are five interest rate call options in this cap maturing at six monthly intervals starting six months from March 1. Each option has a strike rate of 9% and face value of $50 million.

To determine the effective cost of borrowing with the cap we must assume an interest rate scenario. Measuring time in half-years suppose the 6-month LIBOR at subsequent reset dates moves as follows:

Reset Date	LIBOR (%)
1/9/00	10.0
1/3/01	9.5
1/9/01	9.5
1/3/02	9.0
1/9/02	8.5

The premium cost is amortized over a $2^{1/2}$ year period using a discount rate of 9%. This gives annuity of $227,790.43 for 5 periods starting 6 months from September 1,2000. Table 15.1 sets out the cash flows associated with the capped loan. For simplicity of calculations we have

assumed that each half-year period consists of $182^{1/2}$ days. The first column of the table shows semi-annual periods 0-6. The second column shows cash flows from the loan. For instance at t=1, interest to be paid is 50,000,000[0.0925(182.5/360)]= 2,344,618.1

A Floating Rate Loan with an Interest Rate Cap

Time t	Cash Flow from Loan	Amortisation of Premium	Cash Flow from Cap	Total
0	+50,000,000	-	-	+50,000,000
1	-2,344,618.1	-227,790.43	-	-2,572,408.5
2	-2,598,090.3	-227,790.43	+253,472.2	-2,572,408.5
3	-2,471,354.2	-227,790.43	+126,736.1	-2,572,408.5
4	-2,471,354.2	-227,790.43	+126,736.1	-2,572,408.5
5	-2,344,618.1	-227,790.43	-	-2,572,408.5
6	-52,154,514	-	-	-52,154,514

While at t = 3 the interest outflow is

$$50,000,000[0.0975(182.5/360)]=2,471,354.2$$

The third column is amortization of the upfront premium. The next column shows payments received from the cap seller. Thus at t=2, the borrower gets

$$50,000,000(0.10 - 0.09)(182.5/360)=253,472.2$$

This is because LIBOR applicable for the second six-monthly period was 10%, one percent higher than the strike rate of 9%. The last column shows the net cash flows from the capped loan. The effective cost of borrowing is found by finding the IRR of this stream. It works out to a semi-annual rate of 5.02% corresponding to an annual rate of 10.29%.

Interest Rate Floors

A fund manager is planning to invest $50 million in 5-year FRNs. The notes pay 6-month LIB OR + 0.50%, the rate being reset every 6 months. The current 6-month LIBOR is 8.60%. As protection against falling rates the manager decides to buy an interest rate floor with the

following features:

Term : 5 years

Underlying Interest Rate: 6-month LIBOR

Reset Dates : June 1, December 1

Strike Rate : 8%

Face Value : $25 million

Up-front Fee : 1.5% of the face value or $375,000

This is a portfolio of nine simple put options on 6-month LIBOR with maturities 6, 12, 18...54 months. As in the case of the cap above, the upfront premium is amortized in 9 equal 6 monthly installments discounted at today's 6 month LIB OR viz. 8.5%. The corresponding annuity is $51,126.84. Now, the effective return on investment depends upon the value of LIB OR at all future reset dates. The cash flows in the following table are based on the following scenario:

t	LIBOR(%)
0	8.50
I	8.75
2	8.75
3	8.00
4	7.50
5	7.50
6	7.50
7	7.75
8	8.00
9	8.00

An Investment with an Interest Rate Floor

Time t	Cash flow from investment	Amortisation of Premium	Cash flow from Floor	Total
0	-25,000,000	-	-	-25,000,000
1	1,140,625.0	-51,126.8	-	1,089,498.20
2	1,172,309.0	-51,126.8	-	1,121,182.20
3	1,172,309.0	-51,126.8	-	1,121,182.20
4	1,077,256.9	-51,126.8	-	1,026,130.10
5	1,013,888.9	-51,126.8	63,368	1,026,130.10
6	1,013,888.9	-51,126.8	63,368	1,026,130.10
7	1,013,888.9	-51,126.8	63,368	1,026,130.10
8	1,045,572.9	-51,126.8	31,684	1,026,130.10
9	1,077,256.9	-51,126.8	-	1,026,130.10
10	26,077,257.0	-	-	26,077,257.00

The calculations are quite similar to the case of a cap except the buyer of the floor receives payment 1 from the seller when LIBOR falls below the strike rate. The effective return on investment is the IRR of the cash flows shown in the last column. It works out to 4.24% semi-annual which is equivalent to 8.66% annual.

An interest rate collar is a combination of a cap and a floor. A corporation wishing to limit its borrowing cost on a floating rate liability might find the premium associated with a cap too expensive. It can reduce this by sacrificing some of the potential gain from low interest rates. It buys a cap and simultaneously sells a floor. The premium received from the sale of the floor would partly or wholly compensate for the premium paid for the cap. In the latter case, we have a zero cost collar. Thus suppose the current 6-month LIBOR is 7.50% and the company has a floating rate liability with rate reset every six months indexed to 6-month LIBOR. It might buy a cap with a strike rate of 9% and sell a floor with a strike rate of 7%. Suppose the

premia cancel out. Effectively, its borrowing cost will vary between 7 and 9% (plus of course any spread over LIBOR it must pay). By sacrificing the potential gain if LIB OR falls below 7% (in which case buyer of the floor sold by the company would exercise its option), it has eliminated the upfront premium payment.

VALUATION OF INTEREST RATE OPTIONS

The approach to valuation of interest rate options is quite similar to that for currency options. The risk neutral binomial model can be applied to simple interest rate options. Since caps and floors are portfolios of simple options, they can be valued by simply valuing each of the embedded options separately and adding together the values. While conceptually simple, this approach is not theoretically very satisfactory particularly for options with long lives.

Another approach to valuation uses modifications of the Black-Scholes model. The main modifications required are to view options on interest rate as options on an interest bearing instrument and take account of stochastic interest rates. We will not pursue it here. The interested reader can consult the references cited in the bibliography. A theoretically rigorous approach to valuing interest rate options has to be based on a model of the complete term structure of interest rates.

OPTIONS ON INTEREST RATE FUTURES

The options on interest rate futures contracts are traded on a number of financial exchanges including LIFFE. The underlying asset is a futures contract such as T-bill or Eurodollar futures. The holder of a call has the right to establish a long position in a futures contract while a put holder has the right to establish a short position. Short-term interest rate futures prices are quoted as "points of hundred" i.e. (100-the relevant interest rate in per cent). Consequently, holder of a call option on say a Eurodollar futures benefits from a fall in interest rate while the put holder benefits from a rise in interest rate. Thus pay-offs from a long call (put) on futures are similar to a long put (call) on the underlying interest rate itself. The options traded on exchanges are American options. However, in the examples below we will assume away the possibility of early exercise.

Borrower's hedge: Hedging against a rise in interest rate.

Today is March 1. A corporation is planning to issue 92-day commercial paper with face value $20 million on June 1. To protect itself against a rise in interest rate, it decides to buy a put option on 20 Eurodollar futures contracts. The option has the following features:

Type: American put option

Underlying: June Eurodollar contracts

Expiry date: June 1 (91 days from today)

Strike price: 91

Face value: $1 million per contract, $20 million total

Premium: 0.75 b.p.

The current price of June futures is 92. The current 3 month dollar LIBOR is 8.5%. 3-month CP rate is 9%.

The dollar value of the premium is calculated as follows:

0.75 x (1/100) x (90/360) x $1,000,000 = $1875

For 20 contracts, the premium is $37,500.

On June 1, the payoff from each option is

June futures price F	Pay-off
≥ 91	Option lapses, no pay-off
< 91	[(91 -F)(1/100)(90/360)1,000,000]

Thus suppose the features price has fallen to 90. The total gain from exercising the option and immediately liquidating the position would be

(0.01)(90/360)(1,000,000)(20) = $50,000

On June 1, 3 month LIB OR has risen to 9.9% while the 3 month *CP* rate is lOi4%. Without the option, the *CP* issue would have realised

$(20,000,000)/(1+ 0.104(92/360)] = $19,482,206

With the gain from the option it would realise $19,532,206. Of course we must deduct the compounded cost of the premium which is

37,500[1 + 0.085(91/360)] = 38,305.73

The net realization is therefore $19,493,900. If the issue had been made on March 1, the firm

would have realized $(20,000,000)/[1 + 0.09(92/360)] = $19,550,342

The break-even futures price on June 1 is that value of *F* for which the gain from the option equals the compounded value of the premium. It works out to 90.23.

Pay-off from a Put on Eurodollar Futures

As usual, the firm could have chosen a deeper out-of-the-money option with a smaller premium but lower level of protection. Alternatively, the firm could have written a call option on futures and collected an upfront premium. If interest rates had gone up as before, the call would have lapsed unexercised and the premium gained would have reduced the firm's effective borrowing cost. If the rates had fallen, the call would be exercised limiting the gain from lower rates. In one of the problems at the end of this chapter you are asked to compare this strategy with purchase of a put on futures.

We will conclude with an example in which we compare a number of alternative strategies for an investor to cope with interest rate risk.

- Today is March 1. An investor foresees a cash surp1us of $50 million in 3 months time to be invested in 3-month Eurodollar CDs. The current 3-month LIBOR is 8%. The following alterna

  1. Do not hedge.
  2. Sell a 3/6 FRA at 8%.
  3. Buy a 3-month put option on 3-month LIBOR.
  4. Write a put on June Eurodollar futures.
  5. Write a 3-month call on 3-month LIBOR.
  6. Buy a 3-month call on June Eurodollar futures. .

  We have already seen how (2) and (3) work. Consider (4). Writing a put on Eurodollar futures yields an upfront premium. If rates fall, futures prices will rise and the put will not be exercised. The premium income will lead to a higher return than remaining unheeded or an FRA. If rates rise, beyond a point, the put will be exercised against the investor and gain will be limited. Similarly, strategy (5), writing a call on LIBOR yields an upfront income but limits gains from rising rates. The call will be exercised when rates rise. As to (6), if the rates fall, there will be a gain which will partly compensate for the loss on investment while if the

rates rise, investor can gain as in buying a put on LIBOR.

For simplicity, we will ignore the compounding of option premia paid/received over the maturity period of the underlying rate i.e. from 6 to 9 months from the start date. Also ignore the problem of basis in futures. The strike rates in the interest rate options are all 8% and the strike prices in the futures options are 92.

SOME RECENT INNOVATIONS

As in the case of currency options, a number of exotic products have appeared in recent years that permit more flexible management of interest rate risk. An interest rate cap can be designed that provides protection contingent upon the price of some commodity or asset e.g. an oil producer may want protection against high interest rates only when oil prices are low. Average rate or Asian interest rate options have pay-offs based on the average value of the underlying index (e.g. 6-month LIBOR) during a specified period m look-back options give pay-offs determined by the most favourable value. In a cumulative option the buyer can obtain protection such that cumulative interest expense over a period does not exceed a specific level

A description o*f* some *of* these products can be found in Euro-money. ~

Interest rate options have not yet been permitted in the Indian market. However, the recent trend tow liberalization and widening *of* the financial derivatives market it is expected that these products will 51 make their appearance in the Indian market.

SELF–ASSESSMENT QUESTIONS (SAQs)

- **What are the determinants of exchange rates?**
- **Write short notes on Law of one Price and Purchasing Power Parity.**
- **Explain the International Fisher Effect.**
- **Describe the nature of Exposure and Risk.**
- **Write down the objectives of Hedging Policy.**
- **What are the roles of MIS for Exposure Management?**
- **Explain Operating Exposure with suitable example.**
- **Define Forward Rate Agreements (FRAs).**
- **How you evaluate the Interest Rate Options?**
- **Write down the recent innovations on interest rate exposure.**

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Lesson 1: International Capital Budgeting

Objectives:

After studying this lesson you should be able:

- To know the basics of capital budgeting in international context
- To understand the complexities in long term investments in international projects
- To observe the similarities and differences between capital budgeting for a foreign project and domestic project
- To understand the issues in foreign investment analysis

Structure

1.1 **Introduction:**

Global corporations evaluating foreign investments find their analysis complicated by a variety of problems that are rarely, if ever, faced by domestic firms. Recent times have seen a massive surge in cross-border direct investments. In the following sections we examine several such problems, including differences between project and parent company cash flows, foreign tax regulations, expropriation, blocked funds, exchange rate changes and inflation, project-specific financing, and differences between the basic business risks of foreign and domestic projects. Due to the fact that purchasing power parity does not hold, national capital markets will continue to be segmented and exchange risk will have to be explicitly incorporated in international investment appraisal. Thus the most important factor in appraisal of foreign projects is exchange risk and how to incorporate it in the cost of capital. The lesson will also provide a brief overview of project appraisal practices as reported in the literature for international projects.

Capital budgeting decisions are very crucial for the success of any organization. They are long term and irreversible in nature. Firms have to invest present cash in anticipation of future returns. As future is always uncertain these decisions are complex in nature. These decisions in international context assume further significance, as the very nature of foreign investment is complex. Development of framework for international capital budgeting involves measuring, and reducing to a common denominator, the consequences of these complex factors on the desirability of the foreign investment opportunities under review. The purpose of good framework is to maximize the use of available information while reducing arbitrary cash flow and cost of capital adjustments. International capital budgeting techniques are used in traditional foreign direct investment (FDI) analysis, such as for the construction of a manufacturing plant in another country, as well as the growing field of international mergers and acquisitions

1.2 Basics of Capital Budgeting:

International capital budgeting for a foreign project uses the same theoretical framework as domestic capital budgeting – with a very few important differences. Multinational capital budgeting, like traditional domestic capital budgeting, focuses on the cash inflows and outflows associated with prospective long-term investment projects. The basic steps are as follows:

a) Identify the initial capital invested or put at risk.
b) Estimate the cash flows to be derived from the project over time, including an estimate of the terminal or salvage value of the investment.
c) Identify the appropriate discount rate for determining the present value of the expected cash flows.
d) Apply traditional capital budgeting decision criteria such as net present value (NPV) and internal rate of return (IRR) to determine the acceptability of or priority ranking of potential projects.

Once a firm has prepared a list of prospective investments, it must then select from among them that combination of projects that maximizes the company's value to its shareholders. This selection requires a set of rules and decision criteria that enables managers to determine, given an investment opportunity, whether to accept or reject it. Net present value (NPV) method considered being the most accepted method one to use since its consistent with shareholders wealth maximization. We will briefly review the standard NPV procedure used to appraise a project in the next section.

1.2.1. Net Present Value:

The net present value (NPV) is defined as the present value of future cash flows discounted at an appropriate rate minus the initial net cash outlay for the project. Projects with a positive NPV should be accepted; negative NPV projects should be rejected. If two projects are mutually exclusive, the one with the higher NPV should be accepted. The discount rate, known as the cost of capital, is the expected rate of return on projects of similar risk. In mathematical terms, the formula for net present value is

$$NPV = -I_0 + \sum_{t=1}^{n} \frac{X_t}{(1+k)^t}$$

Where I_o = the initial cash investment

X_t = the net cash flow in period t

k = the project's cost of capital

n = the investment horizon

The most desirable property of the NPV criterion is that it evaluates investments in the same way the company's shareholders do; the NPV method rightly focuses on cash rather than on accounting profits and emphasizes the opportunity cost of the money invested. Thus, it is consistent with shareholder wealth maximization. NPV criterion is also obeys the value additivity principle. That is, the NPV of a set of independent projects is just the sum of the NPVs of the individual projects. This property means that managers can consider each project on its own. It also means that when a

firm undertakes several investments, its value increases by an amount equal to the sum of the NPVs of the accepted projects. However, the simplicity of NPV method is deceptive; there are two implicit assumptions. One is that the project being appraised has the same business risk as the portfolio of the firm's current activities and the other is that the debt: equity proportion in financing the project is same as the firm's existing debt: equity ratio. If either assumption is not true, the firm's cost of equity capital changes and the NPV formula gives no clue as to how it changes.

1.2.2. The Adjusted Present Value (APV) Framework:

Projects with different risks are likely to possess differing debt capacities with each project, therefore, necessitating a separate financial structure. Moreover, the financial package for a foreign investment often includes project-specific loans at concessionary rates or higher-cost foreign funds due to home country exchange controls, leading to different component costs of capital. The APV framework allows us to separate out the financing effects and other special features of a project from the operating cash flows of the project. It is based on the well known value additivity principle. It is a two-step approach:

a) In the first step, evaluate the project as if it is financed entirely by equity. The rate of discount is the required rate of return on equity corresponding to the risk class of the project.

b) In the second step, add the present values of any cash flows arising out of special financing features of the project such as external financing, special subsidies if any and so forth. The rate of discount used to find these present values should reflect the risk associated with each of the cash flows.

The adjusted present value (APV) with this approach is

APV =	Present value of investment outlay	Present value of operating cash flows	Present value of interest tax shield	Present value of interest subsidies

$$APV = -I_0 + \sum_{t=1}^{n} \frac{X_t}{(1+k^*)^t} + \sum_{t=1}^{n} \frac{T_t}{(1+i_d)^t} + \sum_{t=1}^{n} \frac{S_t}{(1+i_d)^t}$$

Where T_t = tax savings in the specific financing package

S_t = before tax dollar value of interest subsidies (penalties) in year t due to project –specific financing

i_d = before-tax cost of dollar debt.

It should be emphasized that the all-equity cost of capital equals the required rate of return on a specific project – that is, the riskless rate of interest plus an appropriate risk premium based on the project's particular risk. Thus cost of capital varies according to the risk of the specific project.

According to the capital asset pricing model (CAPM), the market prices only systematic risk relative to the market rather than total corporate risk. In other words, only interactions of project returns with overall market returns are relevant in determining project riskiness; interactions of project returns with total corporate returns can be ignored. Thus, each project has its own required return and can be evaluated without regard to the firm's other investments. If a project-specific approach is not used, the primary advantage of the CAPM is lost – the concept of value additivity, which allows projects to be considered independently.

1.2.3. Incremental Cash Flows:

The most important and also the most difficult part of an investment analysis is to calculate the cash flow associated with the project; the cost of funding the project; the cash inflow during

the life of the project; and the terminal, or ending value of the project. Shareholders are interested in how many additional rupees they will receive in future for the rupees they lay out today. Hence, what matters is not the project's total cash flow per period, but the incremental cash flow for a variety of reasons. They include;

Cannibalization: When a new product is introduced it may take away the sales of existing products. Cannibalization also occurs when a firm builds a plant overseas and winds up substituting foreign production for parent company exports. In this case company may lose exports because it is supplying from its overseas production center. To the extent that sales of a new product or plant just replace other corporate sales, the new project's estimated profits must be reduced by the earnings on the lost sales. However, it is difficult to assess the true magnitude of cannibalization because of the need to determine what would have happened to sales in the absence of the new product or plant. The incremental effect of cannibalization – which is the relevant measure for capital budgeting purposes – equals the lost profit on lost sales that would not otherwise have been lost had the new project not been undertaken. Those sales that would have been lost anyway should not be counted a casualty of cannibalization.

Sales Creation: This is opposite of the cannibalization. For some firms, when they set up manufacturing facilities abroad their overall image may goes up and sales in the domestic market may increase. At the same time their local units may supply components to their foreign units and achieve synergy. In calculating the project's cash flows, the additional sales and associated incremental cash flows should be attributed to the project.

Opportunity Cost: Project costs must include the true economic cost of any resource required for the project, regardless of whether the firm already owns the resource or has to go out and acquire it. This true cost is the opportunity cost, the cash the asset could generate for the firm should it be sold or put to some other productive use. Suppose a firm decides to builds a new plant on some land it bought ten years ago, it must include the cost of the land in calculating

the value of undertaking the project. Also, this cost must be based on the current market value of the land, not the price it paid ten years ago.

Transfer Pricing: Transfer prices at which goods and services are traded internally can significantly distort the profitability of a proposed investment. Where possible, the prices used to evaluate project inputs or outputs should be market prices. If no market exists for the product, then the firm must evaluate the project based on the cost savings or additional profits to the corporation of going ahead with the project.

Fees and Royalties: Often companies will charge projects for various items such as legal counsel, power, lighting, heat, rent, research and development, headquarters staff, management costs, and the like. These charges appear in the form of fees and royalties. They are costs to the project, but are a benefit from the standpoint of the parent firm. From an economic standpoint, the project should be charged only for the additional expenditures that are attributable to the project; those overhead expenses that are unaffected by the project should not be included when estimating project cash flows.

In general, incremental cash flows associated with an investment can be found only by subtracting worldwide corporate cash flows without the investment from post investment corporate cash flows. In performing this incremental analysis, the key question that managers must ask is, What will happen if we don't make this investment?

Failure to heed this question led General Motors to lose business to Japanese automakers in small car segment. Small cars looked less profitable than GM's then current mix of cars. Eventually Japanese firms were able to expand and threaten GM's base business. Many companies that thought overseas expansion too risky today find their worldwide competitive positions eroding. They didn't adequately consider the consequences of not building a strong

global position. Global investments thus must be considered on their strategic importance and not merely on the basis of risk return analysis in short term.

1.3. Foreign Complexities:

David Eiteman, Arthur Stonehill and Michael Moffett have identified the following complexities regarding capital budgeting decisions of foreign projects. They are;

- Parent cash flow must be distinguished from project cash flows. Each of these two types of flows contributes to a different view of value.
- Parent cash flow often depends on the form of financing. Thus, cash flows cannot be clearly separated from financing decisions, as is done in domestic capital budgeting.
- Additional cash flows generated by a new investment in one foreign affiliate may be in par or in whole taken away from another affiliate, with the net result that the project is favorable from a single affiliate's point of view but contribute nothing to world wide cash flows.
- Remittance of fund to the parent must be explicitly recognized because of differing tax systems, legal and political constraints on the movement of funds, local business norms , and difference in the way financial markets and institutions functions.
- Cash flows from affiliates to the parent can be generated by an array of nonfinancial payments, including payments of license fees and payments for imports from the parent.
- Differing rate of national inflation must be anticipated because of their potential to cause changes in competitive position, and thus change in cash flows over a period of time.
- The possibility of unanticipated foreign exchange rate changes must be kept in mind because of possible direct effects on the value to the parent of local cash flows, as well as indirect effects on the competitive position of the foreign affiliate.
- Use of segmented national capital markets may create an opportunity for financing gains or may lead to additional financial costs

- Use of host-government subsidized loan complicates both capital structure and the ability to determine an appropriate weighted-average cost of capital for discounting purposes.
- Political risk must be evaluated because political events can drastically reduce the value or availability of expected cash flows.
- Terminal value is more difficult to estimate because potential purchasers from the host, parent, or third countries, of from the private or public sector, may have widely divergent perspectives on the value to them of acquiring the project.

1.4. Issues in foreign investment analysis:

Since the same theoretical capital budgeting framework is used to choose among competing foreign and domestic projects, a common standard is critical. Thus, all foreign complexities must be quantified as modifications to either expected cash flow or the rate of discount. Although in practice many firms make such modifications arbitrarily, readily available information, theoretical deduction, or just plain common sense can be used to make less arbitrary and more reasonable choices. Some important issues in foreign investment analysis are discussed below:

- **Parent versus Project Cash Flows:**

A substantial differences can exist between the cash flow of a project and the amount that is remitted to the parent firm because of tax regulations and exchange controls. In addition, project expenses such as management fees and royalties are returns to the parent company. Furthermore, the incremental revenue contributed to the parent MNC by a project can differ from total project revenues if, for example, the project involves substituting local production for parent company exports or if transfer price adjustments shift profits elsewhere in the system. Given the differences that are likely to exist

between parent and project cash flows, the questions arises as to the relevant cash flows to use in project evaluation. According to economic theory, the value of a project is determined by the net present value of future cash flows back to the investor. Thus, the parent MNC should value only those cash flows that are, or can be, repatriated net of any transfer costs such as taxes because only accessible funds can be used for the payment of dividends and interest, for amortization of the firm's debt, and for reinvestment.

- **Exchange rate Changes and Inflation:**

The present value of future cash flows from a foreign project can be calculated using a two-stage procedure:
(1) Convert nominal foreign currency cash flows into nominal home currency terms, and (2) discount those nominal cash flows at the nominal domestic required rate of return.

In order to properly assess the effect of exchange rate changes on expected cash flows from a foreign project, one must first remove the effect of offsetting inflation and exchange rate changes. It is worthwhile to analyze each effect separately because different cash flows may be differentially affected by inflation. For example, the depreciation tax shield will not rise with inflation, while revenues and variable costs are likely to rise in line with inflation. Or local price controls may not permit internal price adjustments. In practice, correcting for these effects mean first adjusting the foreign currency cash flows for inflation and then converting the projected cash flows back into home currency using the forecast exchange rate.

- **Political Risk Analysis:**

All else being equal, firms prefer to invest in countries with stable currencies, healthy economies, and minimal political risks, such as expropriation. But all else is usually not equal, so firms must assess the consequences of various political and economic risks for the viability of potential investments. The general approach recommended previously for incorporating political risk in an investment analysis usually involves adjusting the cash flows of the project rather than its required rate of return to reflect the impact of a particular political event on the present value of the project to the parent. The extreme form of political risk is expropriation. Expropriation is an obvious case where project and parent company cash flows diverge. If all funds are expected to be blocked in perpetuity, then the value of the project is zero.

1.5 Summary:

Capital budgeting for foreign projects involves many complexities that do not exist in domestic projects. A foreign project should be judged on its net present value from the viewpoint of funds that can be freely remitted to the partner. Comparison of a project's net present value to similar projects in the host country is useful for evaluating expected performance relative to the potential. Rates of return have to be calculated from both the project's viewpoint and the parent' view point. Once the most likely outcome has been determined, a sensitivity analysis is normally undertaken. Foreign project returns are particularly sensitive to change in assumptions about exchange rate developments, political risk, and the way the repatriation of funds is structured.

1.6 Glossary:

Net Present Value: The net present value (NPV) is defined as the present value of future cash flows discounted at an appropriate rate minus the initial net cash outlay for the project.

Adjusted Present Value (APV): This model seeks to disentangle the effects of financing and considers only business risks of the project while discounting the cash flows.

Cannibalization: When a new product or project is introduced it may take away the sales of existing products or projects. Cannibalizations also occur when a firm builds a plant overseas and generate sales in the foreign market and lose sales in exports.

Expropriation: Official government seizure of private property, recognized by international law as the right of any sovereign state provided expropriated owners are given prompt compensation and fair market value in convertible securities.

Transfer Pricing: The setting of prices to be charged by one unit such as a foreign affiliate of a multiunit corporation to another unit such as the parent corporation for goods or services sold between such related units.

Weighted average cost of capital (WACC): The sum of the proportionally weighted costs of different sources of capital, used as the minimum acceptable target return on new returns.

1.7 Self Assessment Questions

1. Explain briefly the basics of international capital budgeting decisions.
2. List out the complexities involved in foreign projects.
3. What are the major issues in foreign investment analysis?
4. How Adjusted Present Value approach is different from Net Present Value approach?

1.8. Further Readings:

1. Alan C Shapiro, Multinational Financial Management (2002), Prentice-Hall of India, New Delhi.
2. Prakash G Apte, Global Business Finance, Tata McGraw-Hill Publishing Company Limited, New Delhi.
3. David K. Eiteman, Arthur I. Stonehill, Michael H Moffett, Multinational Business Finance, Addison Wesley Longman (Singapore) Pte. Ltd, New Delhi.
4. Prakash G Apte, International Financial Management, Tata McGraw-Hill Publishing Company Limited, New Delhi.

5. Ephraim Clark, International Financial Management, Thompson Asia Pte. Ltd, Singapore.

Lesson 2: International Working Capital - An Overview

Objectives:

After studying this lesson you should be able

- To understand the basics of working capital management in international context
- To know the objectives of international working capital management
- To observe the complexities involved in managing working capital in international projects
- To know the issues involved in financing the working capital requirements of a multinational corporation's foreign affiliate

Structure

1.3 Introduction:

The Working capital management is an integral part of the total financial management of an enterprise that has a greater impact on Profitability,

Liquidity and Overall performance of the enterprise irrespective of its nature. In fact, working capital is a circulatory money investment that takes place right from the input stage to output. Management of working capital is complicated on account of two important reasons, namely, fluctuating nature of its amount, and a need to maintain a proper balance between current assets and non-current assets in order to maximize profits. The importance of working capital in an industry cannot be over stressed, as it is one of the important causes of success or failure of an industry. Whatever be the size of the business, working capital is its life-blood. Working capital constitutes the funds needed to carry on day to day operations of a business, such as purchase of raw materials, payment of wages and other expenses. For running a business an adequate amount of working capital is essential. A firm with shortage of working capital will be technically insolvent. The liquidity of a business is also one of the key factors determining its propensity to success or failure. In, India, paucity of working capital has become a chronic disease in the industrial sector. This calls for a systematic and integrated approach towards utilizing a company's assets with maximum efficiency.

Managing working capital is a matter of balance. A department must have sufficient cash on hand to meet its immediate needs while ensuring that idle cash is invested to the organization's best possible advantage. To avoid tipping the scale, it is necessary to have clear and accurate reports on each of the components of working capital and an awareness of the potential impact of outside influences. Working capital is the money used to make goods and attract sales. The less Working capital used to attract sales, the higher is likely to be the return on investment. Working Capital management is about the commercial and financial aspects of inventory, credit, purchasing, marketing, and royalty and investment policy. The higher the profit margin,

the lower is likely to be the level of Working capital tied up in creating and selling titles.

Working capital management in international context involves managing cash balances, account receivable, inventory, and current liabilities when faced with political, foreign exchange, tax, and liquidity constraints. It also encompasses the need to borrow short-term funds to finance current assets from both in-house banks and external local and international commercial banks. The overall goal is to reduce funds tied up in working capital. This should enhance return on assets and equity. It also should improve efficiency ratios and other evaluation of performance parameters.

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

i) Minimize the working capital needs consistent with other policies for example, granting credit to boost sales, maintain inventories to provide a desired level of customer service etc.

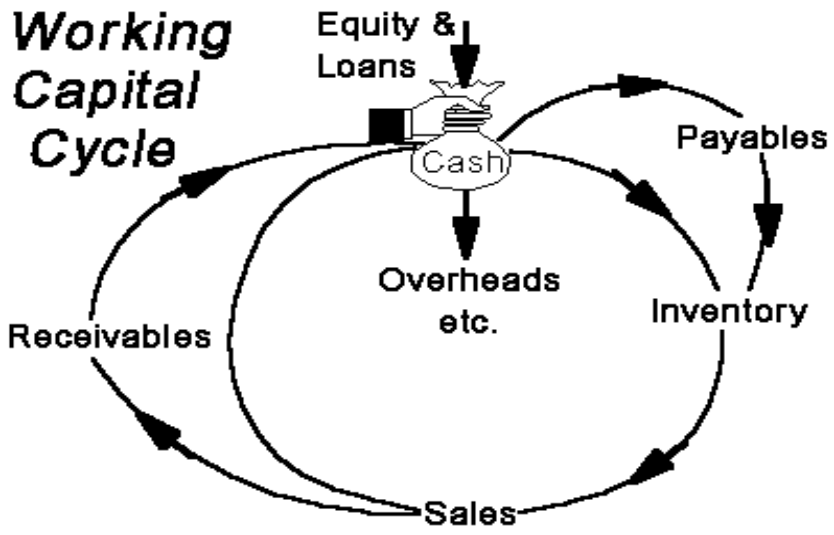
ii) Raise short-term funds at the minimum possible cost and deploy short-term cash surpluses at the maximum possible rate of return consistent with the firm's risk preferences and liquidity needs.

In international context, the added dimensions are the multiplicity of currencies and a much wider array of markets and instruments for raising and deploying funds.

1.2. Working capital cycle:

Cash flows in a cycle into, around and out of a business. It is the business's lifeblood and every manager's primary task is to help keep it flowing and to use the cash flow to generate profits. If a business is operating profitably, then it should, in theory, generate cash surpluses. If it doesn't generate surpluses, the business will eventually run out of cash and expire. The faster a business expands the more cash it will need for working capital and investment. The cheapest and best sources of cash exist as working capital right within business. Good management of working capital will generate cash will help improve profits and reduce risks. Bear in mind that the cost of providing credit customers and holding stocks can represent a substantial proportion of a firm's total profits. There are two elements in the business cycle that absorb cash - inventory (stocks and work-in-progress) and receivables (debtors owing you money). The main sources of cash are payables (your creditors) and equity and loans.

Exhibit .1



Each component of working capital (namely inventory, receivables and payables) has two dimensions: Time and money. When it comes to managing working capital - TIME IS MONEY. If you can get money to move faster around the cycle (e.g. collect monies due from debtors more quickly) or reduce the amount of money tied up (e.g. reduce inventory levels relative to sales), the business will generate more cash or it will need to borrow less money to fund working capital. Consequently, you could reduce the cost of bank interest or you'll have additional free money available to support additional sales growth or investment. Similarly, if you can negotiate, improved terms with suppliers e.g. get longer credit or an increased credit limit; you effectively create free finance to help find future sales. In the next sections an attempt has been made to explain the short-term objectives of working capital management.

1.3.Short-term Financing Objectives:

1. **Minimize expected cost.**

By ignoring risk, this objective reduces information requirements, allows borrowing options to be evaluated on an individual basis without considering

the correlation between loan cash flows and operating cash flows, and lends itself readily to break-even analysis. One problem with this approach is that if risk affects the company's operating cash flows, the validity of using expected cost alone is questionable. If forward contracts are available, however, there is a theoretically justifiable reason for ignoring risk; namely, loan costs should be evaluated on a covered basis. In that case, minimizing expected cost is the same as minimizing actual cost.

2. **Minimize risk without regard to cost.**

A firm that followed this advice to its logical conclusion would dispose of all its assets and invest the proceeds in government securities. In other words, this objective is impractical and contrary to shareholder interests.

3. **Trade off expected cost and systemic risk.**

The advantage of this objective is that, like the first objective, it allows a company to evaluate different loans without considering the relationship between loan cash flows and operating cash flows from operations. Moreover, it is consistent with shareholder preferences as described by the capital asset pricing model. In practical terms, however, there is probably little difference between expected borrowing costs adjusted for systematic risk and expected borrowing costs without that adjustment. This lack of difference is because the correlation between currency fluctuations and a well-diversified portfolio of risky assets is likely to be quite small.

4. **Trade off expected cost and total risk:**

Basically, it relies on the existence of potentially substantial costs of financial distress. On a more practical level, management generally prefers greater stability of cash flows (regardless of investor preferences). Management will typically self-insure against most losses, but might decide to use the financial markets to hedge against the risk of large losses. To implement this approach, it is necessary to take into account the covariances between operating and financing

cash flows. This approach (trading off expected cost and total risk) is valid only where forward contracts are unavailable. Otherwise, selecting the lowest-cost borrowing option, calculated on a covered after-tax basis, is the only justifiable objective.

In the following sections an attempt has been made to explain the various short-term financing and investment options available to MNCs.

1.4. Short-term Financing Options:

International money markets particularly in well-developed financial centres like London, New York, and Tokyo offer a variety of instruments to raise short-term financing as well as place short-term funds. The principal dimensions of the borrowing investment decisions are the instrument, currency, location of the financial centre, and any tax related issues. Between them they decide the cost of return on funds, extent of currency exposure, the ease with which funds can be moved from one location and currency to another, and thus the overall efficiency of the cash management function. Firms typically prefer to finance the temporary component of current assets with short-term funds. The financing options that may be available to an MNC:

a) the intercompany loan
b) the local currency loan, and
c) Euronotes and Euro commercial paper

a) Intercompany Financing:

A frequent means of affiliate financing is to have either the parent company or sister affiliate provide an intercompany loan. At times, however, these loans may be limited in amount or duration by official exchange controls. Normally, the lender's government will want the interest rate on an intercompany loan to

be set as high as possible for both tax and balance-of-payments purposes, while the borrower's government will demand a low interest rate for similar reasons. The relevant parameters in establishing the cost of such a loan include the lender's opportunity cost of funds, the interest rate set, tax rates and regulations, the currency of denomination of the loan, and expected exchange rate movements over the term of the loan.

b) Local Currency Financing:

Like most domestic firms, affiliates of multinational corporations generally attempt to finance their working capital requirements locally, for both convenience and exposure management purposes. Since all industrial nations and most less developed countries (LDCs) have well-developed commercial banking systems, firms desiring local financing generally turn there first. The major forms of bank financing include overdrafts, discounting, and term loans. Nonbank sources of funds include commercial paper and factoring.

Loans from commercial banks are the dominant form of short-term interest-bearing financing used around the world. These loans are described as Self-liquidating because they are usually used to finance temporary increases in accounts receivable and inventory. These increases in working capital are soon converted into cash, which is used to repay the loan.

Short-term bank credits are typically unsecured. The borrower signs a note evidencing its obligation to repay the loan when it is due, along with accrued interest. Most note are payable in 90 days; the loan must, therefore, be repaid or renewed every 90 days. The need to periodically roll over bank loans gives a bank substantial control over the use of its funds, reducing the need to impose severe restrictions on the firm. To further ensure that short-term

credits are not being used for permanent financing, a bank will usually interest a cleanup clause requiring the company to completely out of debt to the bank for a period of at least 30 days during the year.

Bank credit provides a highly flexible form of financing because it is readily expandable and, therefore, serves as a financial reserve. Whenever the firm needs extra short-term funds that can't be met by trade credit, it is likely to turn first to bank credit. Unsecured bank loans may be extended under a line of credit, under a revolving-credit arrangement.

c) Euronotes and Euro-Commercial Paper:

A recent innovation in nonbank short-term credits that bears a strong resemblance to commercial paper is the so-called Euronote. Euronotes are short-term notes usually denominated in dollars and issued by corporations and governments. The prefix "EURO" indicates that the notes are issued outside the country in whose currency they are denominated. The interest rates are adjusted each time the notes are rolled over. Euronotes are often called Euro-commercial paper(Euro-CP, for short). Typically, though, the name Euro-CP is reserved for those Euronotes that are not underwritten.

1.5. Investing Surplus Funds:

In a multinational corporation with production and selling subsidiaries spread around the world, cash inflows and outflows occur in diverse currencies. Apart from cost and return considerations, several other factors influence the choice of currencies and locations for holding cash balances. The bid-ask spreads in exchange rate quotations represent transaction

costs of converting currencies into one another. Other costs such as telephone calls, telexes and other paperwork may also contribute substantially to the transaction costs. Minimising transaction costs would require that funds be kept in the currency in which they are received if there is the possibility that they might be needed latter in the same currency. Availability of investment vehicles and their liquidity is yet another important factor. Withholding taxes may influence the choice. If balances are held in interest bearing assets in a country which has a withholding tax on non-resident interest income, and the tax rate exceeds the parent's home country tax rate, the parent cannot get full credit for the foreign tax paid and such a location may therefore become unattractive for holding funds.

Once the treasurer has identified the cashflows and determined how much surplus funds are available, in which currencies and for what duration, he or she must choose appropriate investment vehicles so as to maximize the interest income. Again, at the same time, the treasurer must look towards minimizing currency and credit risks and ensuring sufficient liquidity to meet any unforeseen cash requirements.

The major investment vehicles available for short-term placement of funds are:

(i) short-term bank deposits,
(ii) fixed-term money market deposits such as CDs, and
(iii) financial and commercial paper.

The main considerations in choosing and investment vehicle can be summarized as follows:

- **Yield:** Total return on the investment including interest income and any capital gain or loss. Very often, security and liquidity considerations may take precedence over yield.
- **Marketability:** Since liquidity is an important consideration, the ease with which the investment can be unwound is important. Instruments like CDs have well-developed secondary markets while CPs and trade related paper have limited liquidity.
- **Exchange Rate Risk:** If funds eventually required in currency A are invested in currency B, there is an exchange rate risk. If covered, there is no advantage to switching currencies.
- **Price Risk:** If a fixed-term investment such as a CD or a T-bill has to be liquidated before maturity, there is the risk of capital loss if interest rates have moved up in the meanwhile.
- **Transactions Costs:** Brokerage commissions and other transactions costs can significantly lower the realized yield particularly on short-term investments.

Money-market investments are often available in fixed minimum sizes and maturities, which may not match the size of the available surplus and the duration for which it is available.

1.6. Summary:

Working capital management in international context requires managing cash balances, accounts receivable, inventory, and current liabilities when faced with political, foreign exchange, tax, and liquidity constraints. It also encompasses the need to borrow short-term funds to finance current assets from both in-house banks and external local and international commercial banks. The overall goal is to reduce funds tied up in working capital. This should enhance return on assets and equity. It also should improve efficiency

ratios and other evaluation of performance parameters. When a foreign affiliate operates in a hyperinflation country, cash working capital problems abound. Parents of such affiliates must, at a minimum, be aware their affiliate may be decapitalized. If they cannot raise sales prices faster than the rate of inflation, they must be prepared to invest follow-up capital, year after year until the inflation rate diminishes. MNCs can finance working capital needs through in-house banks, international banks, and local banks where subsidiaries are located. International banks finance MNCs and service these accounts through representative offices, correspondent-banking relationships, branch banks, banking subsidiaries, and affiliates.

1.7. Glossary:

Commercial Paper: Is unsecured debt issued by a limited number of the nation's largest and strongest companies.

Factoring: Selling receivables to a finance company, which then responsible for collection.

Line of Credit: A line of credit is an informal, revocable borrowing limit offered by banks.

Operating Cycle: The operating cycle is the time from the acquisition of inventory until cash is collected from product sales.

Revolving Credit Agreement: A revolving credit agreement is an irrevocable borrowing limit requiring a commitment fee on the unused amount.

Working Capital Management: The assets and liabilities required to operate a business on a day-to-day basis. The assets include cash, receivables, and inventories, while the liabilities are generally payables and accruals.

1.8. Self Assessment Questions:

1. How international working capital management is different from working capital management of domestic firms?

2. What are the main objectives of international working capital management?
3. What are the various short-term investment and financing objectives available for MNCs?

1.9. Further Readings:

6. Alan C Shapiro, Multinational Financial Management (2002), Prentice-Hall of India, New Delhi.
7. Prakash G Apte, Global Business Finance, Tata McGraw-Hill Publishing Company Limited, New Delhi.
8. David K. Eiteman, Arthur I. Stonehill, Michael H Moffett, Multinational Business Finance, Addison Wesley Longman (Singapore) Pte. Ltd, New Delhi.
9. Prakash G Apte, International Financial Management, Tata McGraw-Hill Publishing Company Limited, New Delhi.
10. Ephraim Clark, International Financial Management, Thompson Asia Pte. Ltd, Singapore.

Lesson 3: Current Asset Management

Objectives:

After studying this lesson you should be able

- To understand the differences between domestic and international working capital management
- To know the international cash management practices adopted by multi national corporation
- To know the procedures involved in accounts receivable management
- To observe the inventory management techniques adopted by international business firms

Structure

1.4 Introduction:

The management of working capital in the multinational corporation is similar to its domestic counterpart. Both are concerned with selecting that combination of current asset-cash, marketable, accounts receivable, and inventory-that will maximize the value of the firm. The essential differences between domestic and international working-capital management include the impact of currency fluctuations, potential exchange controls, and multiple tax jurisdictions on these decisions, in addition on the wider range of short-term financing and investment options available. Multinational firms can shift liquid assets among various affiliates. The following sections focus on management practices of international companies' cash, accounts receivable, and inventory management.

1.5 Cash Management:

International money managers attempt to attain on a worldwide basis the traditional domestic objectives of cash management: (1) bringing the company's cash resources within control as quickly and efficiently as possible and (2) achieving the optimum conservation and utilization of these funds.

Accomplishing the first goal requires establishing accurate, timely forecasting and reporting systems, improving cash collections and disbursements, and decreasing the cost of moving funds among affiliates. The second objective is achieved by minimizing the required level of cash balances, making money available when and where it is needed, and increasing the risk-adjusted return on those funds that can be invested. Restrictions and typical currency controls imposed by governments inhibit cash movements across national boundaries. These restrictions are different from one country to other. Managers require lot of foresight, planning, and anticipation. Other complicating factors in international money management include multiple tax jurisdictions, multiple currencies, and relative absence of internationally integrated interchange facilities for moving cash quickly from one place to other. However, by adopting advanced cash management techniques MNCs are able to take advantage of various opportunities available in different countries. By considering all corporate funds as belonging to a central reservoir or 'pool' and managing it as such, overall returns can be increased while simultaneously reducing the required level of cash and marketable securities worldwide.

1.2.1. Centralized Cash Management: Advantages

When compared to a system of autonomous operating units, a fully centralized international cash management program offers a number of advantages, such as;

1. The corporation is able to operate with a smaller amount of cash; pools of excess liquidity are absorbed and eliminated; each operation will maintain transactions balances only and not hold speculative or precautionary ones.
2. By reducing total assets, profitability is enhanced and financing costs reduced.
3. The headquarters staff, with its purview of all corporate activity, can recognize problems and opportunities that an individual unit might not perceive.
4. All decisions can be made using the overall corporate benefit as the criterion.
5. By increasing the volume of foreign exchange and other transaction done through headquarters, banks provide better foreign exchange quotes and better service.
6. Great expertise in cash and portfolio management exists if one group is responsible for these activities.
7. Less will be lost in the event of an expropriation or currency controls restricting the transfer of funds because the corporation's total assets at risk in a foreign country can be reduced.

The foregoing benefits have long been understood by many experienced multinational firms. Today the combination of volatile currency and interest rate fluctuations, questions of capital availability, increasingly complex organization and operating

arrangements, and a growing emphasis on profitability virtually mandates a highly centralized international cash management system. There is also a trend to place much greater responsibility in corporate headquarters. Centralization does not necessarily imply control by corporate headquarters of all facets of cash management. Instead, a concentration of decision making at a sufficiently high level within the corporation is required so that all pertinent information is readily available and can be used to optimize the firm's position.

1.2.2. Netting

In a typical multinational family of companies, there are a large number of intra-corporate transactions between subsidiaries and between subsidiaries and the parent. If all the resulting cash flows are executed on a bilateral, pairwise basis, a large number of currency conversions would be involved with substantial transaction costs. With a centralised system, netting is possible whereby the cash management centre (CMC) nets out receivables against payables, and only the net cash flows are settled among different units of the corporate family.

Payments among affiliates go back and forth, whereas only a netted amount need be transferred. For example, the German subsidiary of an MNC sells goods worth $1million to its Italian affiliate that in turn sells goods worth $2 million to the German unit. The combined flows total $3 million. On the net basis, however, the German unit need remit only $1 million to the Italian unit. This is called bilateral netting. It is valuable, though only if subsidiaries sell back and forth to each other. But a large percentage of multinational transactions are internal – leading to a relatively large volume of interaffiliate payments – the payoff from multilateral netting can be large, relative to he costs of such a system.

Exhibit 1

Intercompany Payments Matrix (U.S.$ Millions)

Paying Affiliates					
Receiving affiliates	**United States**	**UK**	**Australia**	**Belgium**	Total
United States	---	8	7	4	19
France	6	---	4	2	12
Sweden	2	0	---	3	5
Belgium	1	2	5	---	8
Total	**9**	**10**	**16**	**9**	**44**
	Receipt	**Payment**	**Net Receipt**	**Net Payment**	
United States	19	9	**10**	**---**	
France	12	10	**2**	**---**	
Sweden	5	16	**---**	**11**	
Belgium	8	9	**---**	**1**	

The netting center will use a matrix of payables and receivables to determine the net payer or creditor position of each affiliate at the date of clearing. Assume that there is a U.S. parent corporation with subsidiaries in UK, Belgium, and Australia. Each of the amounts due to and from the affiliated companies is converted into a common currency (the U.S. dollar in this example) and entered onto the matrix. Without netting, the total payments in the system would equal $44 million. Multilateral netting will pare these transferes to $12 million, a net reduction of 73% (Exhibit 1).

1.2.3.Cash Pooling

The CMC act not only as a netting center but also the repository of all surplus funds. Under this system, all units are asked to transfer their surplus cash to the CMC, which transfers them among the units as needed and undertakes investment of surplus funds and short-term borrowing on behalf of the entire corporate family. The CMC can in fact function as a finance company which accepts loans from individual surplus units, makes loans to deficit units and also undertakes market borrowing and investment. By denominating the intra-corporate loans in the units' currencies, the responsibility for exposure management is entirely transferred to the finance company and the operating subsidiaries can concentrate on their main business, viz. production and selling of goods and services. Cash pooling will also reduce overall cash needs since cash requirements of individual units will not be synchronous.

1.2.4.Reinvoicing Centre:

The concept of CMC can be combined with that of a reinvoicing centre. Under this system, notionally, all subsidiaries sell their output to the reinvoicing centre, which is located in a low-tax country. The sales are invoiced in the selling company's currency. The reinvoicing centre takes title to the goods and in turn sells to third party customers, as well as other members of the corporate family which may be production and/or sales subsidiaries. The actual deliveries are made from the selling units to the buying units. For intra-corporate sales, the buying units are invoiced in their respective currencies. Thus the entire currency exposure is transferred to the reinvoicing centre which can use matching and pairing to minimise recourse to forward markets or other hedging devices. Also, the reinvoicing centre can access foreign exchange markets more efficiently than individual subsidiaries. Leading and lagging can be used to transfer funds from cash-surplus units to cash-deficit units.

CMCs, finance companies, and reinvoicing centres are generally located in major money market centres where active markets in foreign exchange and a variety of money market instruments are available. Also, the presence of an efficient banking system can facilitate speedy settlement of receivables and payables.

Some important issues have to be sorted out before setting up a centralised cash management system with netting and cash pooling. If the CMC uses a single currency as the common denominator to compute net positions, this will lead to transactions exposure for individual subsidiaries. Hence the choice of the common currency must be made in the light of local currencies of the individual divisions, existence of sufficiently active forward markets and other hedging products between these currencies and the common currency and so forth. The second issue is related to rules governing settlement of debts within the system. If an individual subsidiary has a net debtor position, how much time should it be given to settle, how much interest should it be charged on overdues, how should it prevent a subsidiary from arbitraging between its local money market and the CMC (e.g.if a subsidiary can earn a much higher rate in the local money market than what it has to pay on overdues to the centre, it will have incentive to delay payments) are among the considerations which must be thoroughly analysed.

Despite these advantages, complete centralisation of cash management and funds holding will generally not be possible. Some funds have to be held locally in each subsidiary to meet unforeseen payments since banking systems in many developing countries do not permit rapid transfers of funds. Also, some local problems in dealing with customers, suppliers and so on, have to be handled on the spot for which purpose local banks have to be used and local banking relationships are essential. Each corporation much evolve its own optimal degree of centralisation depending upon the nature of its global operations, locations of its subsidiaries

and so forth. Further, conflicts of interest can arise if a subsidiary is not wholly owned but a joint venture with a minority local stake. What is optimal with regard to cash and exposure management from an overall corporate perspective need not be necessarily so from the point of view of local shareholders.

1.2.5. Collection and Disbursement of Funds:

Accelerating collections both within a foreign country and across borders is a key element of international cash management. Considering either national or international collections, accelerating the receipt of funds usually involves the following:

i) defining and analyzing the different available payment channels,
ii) selecting the most efficient method (which can vary by country and customer),
iii) giving specific instructions regarding procedures to the firm's customers and banks.

Management of disbursements is a delicate balancing act: holding onto funds versus staying on good terms with suppliers. It requires a detailed knowledge of individual country and supplier policies, as well as the different payment instruments and banking services available around the world. A constant review on disbursements and auditing of payment instruments help international firms achieve better cash management. The following questions may help international firms to find suitable methodology.

1. What payment instrument are you using to pay suppliers, employees, and government entities (e.g. checks, drafts, wire transfers, direct deposits)?
2. What are the total disbursements made through each of these instruments annually?
3. What is the mail and clearing float for these instruments in each country?

4. What techniques, such as remote disbursement, are being used to prolong the payment cycle?
5. How long does it take suppliers to process the various instruments and present them for payment?
6. What are the bank charges and internal processing cost for each instrument?
7. Are banking services such as controlled disbursement and zero-balance account used where available?

1.2.6. Management of the Short-term Investment Portfolio

A major task of international cash management is to determine the levels and currency denominations of the multinational group's investment in cash balances and money market instruments. Firms with seasonal or cyclical cash flows have special problems, such as spacing investment maturities to coincide with projected needs. To manage, this investment properly requires (a) a forecast of future cash needs based on the company's current budget and past experience and (b) an estimate of a minimum cash position for the coming period.

Common-sense guidelines for globally managing the marketable securities portfolio are as follows.

1. Diversify the instruments in the portfolio to maximize the yield for a given level of risk. Don't invest only in government securities. Eurodollar and other instruments may be nearly as safe.
2. Review the portfolio daily to decide which securities should be liquidated and what new investment should be made.
3. In revising the portfolio, make sure that incremental interest earned more than compensates for such added costs clerical work, the income lost between

investments, fixed charges such as the foreign exchange spread, and commission on the sale and purchase of securities.

4. If rapid conversion to cash is an important consideration, then carefully evaluate the security's marketability (liquidity). Ready markets exist for some securities, but not for others.
5. Tailor the maturity of the investment to the firm's projected cash needs. Or a secondary market with high liquidity should exist.
6. Carefully consider opportunities for covered or uncovered interest arbitrage

1.2.7. Cash Transmission:

An important but easy to overlook aspect of cash management is minimising the unnecessary costs in the process of collecting cash from debtors and making payments to creditors. These costs arise from the so called "float". A debtor issues a cheque or a draft in favour of the firm, but funds do not become available to the firm till the instrument is cleared through the banking system. This delay is the float. The treasurer must try and minimise the float in the cash collection cycle and take advantage of the float in the cash payment cycle.

The banking systems in various countries have evolved clearing mechanisms which aim at reducing the delays between a payment instruction being received and the payee actually being able to apply the funds. The CHIPS in the US, CHAPS in the UK are examples of such systems. SWIFT is an electronic network for cross-border funds transfers. A treasurer operating in a multinational framework needs a good working knowledge of these systems. Similarly banks around the world offer various facilities to their clients to speed up funds transfers. Direct debits, lock-box facilities and other such devices can help in cutting down these delays often enabling realisation of value the same day. With the rapid strides in technology of banking and innovations like internet banking, it may be possible to virtually eliminate the delays and effect instant cash transfers from the payer to the payee.

1.3 Accounts Receivable Management:

Firms grant trade credit to customers, both domestically and internationally, because they expect the investment in receivables to be profitable, either by expanding sales volume or by retaining sales that otherwise would be lost to competitors. Some companies also earn a profit on the financing charges they levy on credit sales.

The need to scrutinize credit terms is particularly important in countries experiencing rapid rates of inflation. The incentive for customers to defer payment, liquidating their debts with less valuable money in the future, is great. Furthermore, credit standards abroad are often more relaxed than in the home market, especially in countries lacking alternative sources of credit for small customers. To remain competitive, MNCs may feel compelled to loosen their own credit standards. Finally, the compensation system in many companies tends to reward higher sales more than it penalizes an increased investment in accounts receivable. Local managers frequently have an incentive to expand sales even if the MNC overall does not benefit. Two key credit decisions to be made by a firm selling abroad are the amount of credit to extend and the currency in which credit sales are to be billed.

The following five-step approach enables a firm to compare the expected benefits and costs associated with extending credit internationally:

1. Calculate the current cost of extending credit.
2. Calculate the cost of extending credit under the revised credit policy.
3. Using the information from steps 1 and 2, calculate incremental credit costs under the revised credit policy.
4. Ignoring credit costs, calculate incremental profits under the new credit policy.
5. If, and only if, incremental profits exceed incremental credit costs, select the new credit policy.

1.4 Inventory Management:

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

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

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

Although, conceptually, the inventory management problems faced by multinational firms are not unique, they may be exaggerated in the case of foreign operations. For instance, MNCs typically find it more difficult to control their overseas inventory and realize inventory turnover objectives. There are a variety of reasons: long and variable transit times if ocean transportation is used, lengthy customs proceedings, dock strikes, import controls, higher duties, supply disruption, and anticipated changes in currency values.

1.4.1. Advanced Inventory Purchases:

In many developing countries, forward contracts for foreign currency are limited in availability or the nonexistent. In addition, restrictions often preclude free remittances, making it difficult, if not impossible, to convert excess funds into a hard currency. One means of hedging is to engage in anticipatory purchases of goods, especially imported items. The trade-off involves owning goods for which local currency prices may be increased, thereby maintaining the dollar value of the asset even devaluation occurs, versus forgoing the return on local money market investments.

14.2. Inventory Stockpiling:

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

1.8 Summary:

We observed that although the objectives of cash management are the same for the MNC as for the domestic firm – to accelerate the collection of funds and optimize their use – the key ingredients to successful management differ. The inventory and receivable management in the MNC involves the familiar cost-minimizing strategy of investing. These benefits accrue in the form of maintaining or increasing the value of other current assets – such as cash and marketable securities – increasing sales revenue, or reducing inventory stock-out costs. Inflation, currency changes, and supply disruptions generally cause more concern in the multinational rather than the domestic firm is that multinational are often restricted in their ability to deal with these problems because of financial market constraints or import controls.

1.9 Glossary:

Cash Pooling: Transfer of excess cash into a central account (pool), usually located in a low-tax nation, where all corporate funds are managed by corporate staff.

CHIPS: Clearing House Interbank Payments System. A computerized network for transfer of international payments.

Netting: Reducing fund transfers between affiliates to only a netted amount. Netting can be done on a bilateral basis (between pairs of affiliates) or on a multilateral basis (taking all affiliates together).

SWIFT: Society for Worldwide Interbank Financial Telecommunications. A dedicated computer network to support funds transfer messages internationally between over 900 member banks worldwide.

1.10 Self Assessment Questions

1. What are the important dimensions of cash management of MNCs?
2. Explain the issues involved in accounts receivables.
3. Describe inventory management practices adopted by MNCs.

1.8. Further Readings:

Alan C Shapiro, Multinational Financial Management (2002), Prentice-Hall of India, New Delhi.

Prakash G Apte, Global Business Finance, Tata McGraw-Hill Publishing Company Limited, New Delhi.

David K. Eiteman, Arthur I. Stonehill, Michael H Moffett, Multinational Business Finance, Addison Wesley Longman (Singapore) Pte. Ltd, New Delhi.

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Kirt C.Butler, Multinational Finance, Thomson, New Delhi.

Lesson 4: Financial Dimensions of International Trade – An Introduction

Objectives:

After studying this lesson you should be able;

- To understand the basic issues involved in international trade
- To know various payment terms involved in international trade
- To know various documents in international trade

Structure

1.6 Introduction:

Most multinational corporations are heavily involved in foreign trade in addition to their other international activities. The financing of trade-related working capital requires large amounts of money, as well as financial services such as letters of credit and acceptances. It is vital, therefore, that the multinational financial executives have knowledge of the institutions and documentary procedures that have evolved over the centuries to facilitate the international movement of goods. The following sections describe and analyze the various payment terms

possible in international trade, along with the necessary documentation associated with each procedure.

1.7 Trade Finance: Some Basic Issues:

The massive growth of international trade in goods and services would not have been possible without the supporting framework of efficient payments and financing mechanisms.

Following are among the important considerations in the choice of a strategy for trade financing.

- The nature of the goods in question. Capital goods usually require medium-to- long-term financing while consumer goods, perishable products etc. require shot-term finance.
- Bargaining strength of the two parities. A buyers' market favours the importer and exporter may have to offer longer credit terms, bear the currency risk. A sellers' market on the other hand favours the exporter.
- The nature of the relationship between the exporter and the importer. For example, if both are members of the same corporate family (affiliates of the same MNC) or have had a long standing relation with each other, the exporter may agree to sell on open account credit while absence of confidence may require a third-party guarantee such as a letter of credit.
- The availability of various forms of financing and government regulation pertaining to sale, transaction etc.

The crucial question is who will bear the credit risk? When an exporter sells on an open account or on a consignment basis, the exporter bears the entire credit risk. On the other hand, in cases when the importer makes advance payment at the time of placing the order, he bears the credit risk. Most often, given the complexities in cross-border transaction and the absence of detailed knowledge regarding the financial status of the two parities, credit risk will be

shifted to an intermediary who specialized in evaluation such as an EXIM bank or commercial banks.

There is also the question of exchange risk. If the invoice is in the exporter's currency, the importer bears exchange risks and vice versa. Often, it may be neither's currency but it other international vehicle currency. E.g. USD in which case both bear and exchange risk. With the availability of sufficiently deep forward markets, the question of currency of invoicing is not critically important.

1.8 Payment Terms in International Trade:

Every shipment abroad requires some kind of financing while in transit. The exporter also needs financing to buy or manufacture its goods. Similarly, the importer has to carry, these goods in inventory until the goods are sold. Then, it must finance its customers' receivables.

A financially strong exporter can finance the entire trade cycle out of its own funds by extending credit until the importer has converted these goods in to cash. Alternatively, the importer can finance the entire cycle by paying cash in advance. Usually, however, some in-between approach is chosen, involving a combination of financing by the exporter, the importer, and or more financial intermediaries. The five principal means of payment in international trade, ranked in term of increasing risk to the exporter, are

- Cash in advance
- Letter of credit
- Draft
- Consignment
- Open account

As a general rule, the greater the protection afforded the exporter, the less convenient are payment terms for the buyer (importer). Some of these methods, however, are designed to protect both parties against commercial and/or political risks. It is up to the exporter when choosing among these payment methods to weigh the benefits in risk reduction against the cost of lost sales. The five basic means of payments are discussed in the following paragraphs.

1.3.1.Cash advance

Cash in advance affords the exporter the greatest protection because payment is received either before shipment or upon arrival of the goods. This method also allows the exporter to avoid tying up its own funds. Although less common than in the past, cash payment upon presentation of documents is still widespread. Cash terms are used where there is political instability in the importing country or where the buyer's credit is doubtful. Political crises or exchange controls in the purchaser's country may cause payment delays or even prevent fund transfers, leading to a demand for cash in advance. In addition, where goods are made to order, prepayment is usually demanded, both to finance production and to reduce marketing risks.

1.3.2. Letter of credit

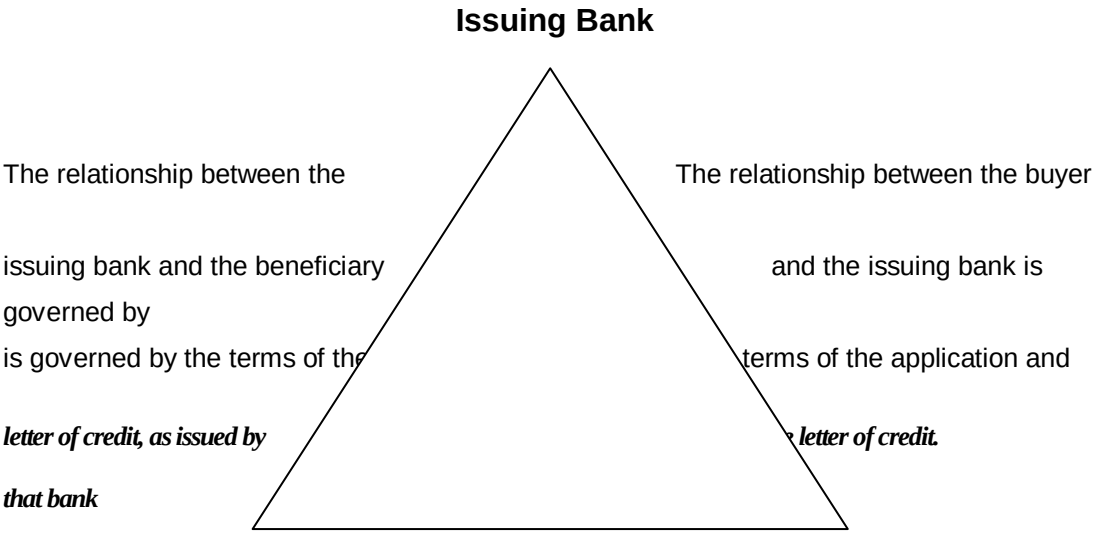
Importers will often balk at paying cash in advance, however, and will demand credit terms instead. When credit is extended, the letter of credit (L/O) offers the exporter the greatest degree of safety.

If the importer is not well known to the exporter or if exchange restrictions exist or are possible in the importer's country, the exporter selling on credit may wish to have the importer's promise of payment backed by a foreign or domestic bank. On the other hand, the importer may not wish to pay the exporter until it is reasonable certain that the merchandise has been shipped in good condition. A letter of credit satisfies both of these conditions.

In essence, the letter of credit is a letter addressed to the seller, written and signed by a bank acting on behalf of the buyer. In the latter, the bank promises it will honor drafts drawn on itself if the seller conforms to the specific conditions set forth in the L/C.(The draft which is written order to pay, is discussed in the next part of this section.) Through an L/C, the bank substitutes, its own commitment to pay for that of its customer (the importer). The letter of credit, therefore, becomes a financial contract between the issuing bank and a designated beneficiary that is separate the commercial transaction. Exhibit 1 illustrates parties of a letter of credit.

Exhibit.1

Parties of a Letter of Credit



Beneficiary	***The relationship between the buyer and the***	*Applicant*
(*Seller)*	***beneficiary is governed by the sales contract.***	*(Buyer)*

The Advantages to the exporter are as follows:

1. Most important, an L/C eliminates credit risk if the bank that opens it is of undoubted standing. Therefore, the firm need check only on the credit reputation of the issuing bank.
2. An L/C also reduce the danger that payment will be delayed or withheld due to exchange control or other political acts. Countries generally permit local banks to honor their letters of credit. Failure to honor them could severely damage the country's credit standing and credibility.
3. An L/C reduce uncertainty. The exporter know all the requirements for payment because they are clearly stipulated on the L/C
4. The L/C can also guard against preshipment risks. The exporter who manufactures under contract a specialized piece of equipment runs the risk of contract cancellation before shipment. Opening a letter of credit will provide protection during the manufacturing phase.
5. Last, and certainly not least, the L/C facilitates financing because it ensure the exporter a ready buyer for its product. It also become especially easy to create a banker's acceptance-a draft accepted by a bank

Most advantages of an L/C are realized by the seller; nevertheless, there some advantages to the buyer as well.

1. Because payment is only in compliance with the L/Cs stipulated conditions, the importer is able to ascertain that the merchandise is actually shipped on, or before, a certain date by requiring an on-board bill of lading. The importer can also require an inspection certificate.

2. Any documents required are carefully inspected by clerks with years of experience. Moreover, the bank bears responsibility for any oversight. .
3. Because an L/C is about as good as cash in advance, the importer can usually command better credit terms and/ or price.
4. Some exporter will sell only on a letter of credit. Willingness to provide on expands a firm's sources of supply.
5. L/C financing may be cheaper than the alternatives. There is no tie-up of cash if the L/C substitutes for cash in advance.
6. Of prepayment is required, the importer is better of depositing it money with a bank than with the seller because it is then easier to recover the deposit if the seller is unable or unwilling to make a proper shipment.

1.3.3. The Draft

Commonly used in international trade, a draft is an unconditional order in writing usually signed by the exporter (seller) and addressed to the importer (buyer) or the importer's agent-ordering the importer to pay on demand, or at fixed or determinable future date, the amount specified on its face. Such an instrument, also known as a Bill of Exchange, serves three important functions:

- To provide written evidence, in clear and simple terms, of a financial obligation
- To enable both parties to potentially reduce their cost of financing
- To provide a negotiable and unconditional instrument (that is, payment must be made to any holder in due course despite any disputes over the underlying commercial transaction).

Using a draft also enables an exporter to employ its banks as a collection agent. The bank forwards the draft or bill of exchange to the foreign buyers (either directly or through a branch or correspondent bank), collects on the draft, and them remits the proceeds to the exporter. The bank has all the necessary documents for control of the merchandise and turns them over to the importer only when the draft has been paid or accepted in accordance with the exporter's instructions.

1.3.4. Consignment

Goods sent on consignment are only shipped to the importer, but they are not sold. The exporter (consignor) retains title to the goods until the importer (consignee) has sold them to a third party. This arrangement is normally made only with a related company because of the large risk involved. There is little evidence of the buyer's obligation to pay, and should the buyer default, it will prove difficult to collect. The seller must carefully consider the credit risks involved and also the availability of foreign exchange in the importer's country. Imports covered by documentary draft receive priority over imports shipped on consignment.

1.3.5. Open account

Open account selling is shipping goods first and billing the importer later. The credit terms are arranged the buyer and the seller, but the seller has little evidence of the importer's obligation to pay a certain amount at a certain date. Sale on open account, therefore, are made only to a foreign affiliate or to a customer with which the exporter has a long history of favorable business dealings. However, open account sale have greatly expanded due to the major increase in international trade, the improvement in credit information about importers, and the greater familiarity with exporting in general. The

benefits include greater flexibility (no specific payment dates are set) and involve lower cost, including fewer banks charge than with other methods of payment. As with shipping on consignment, the possibility of currency controls is an important factor because of the low priority in allocating foreign exchange normally accorded this type of transaction.

1.9 Documents in International Trade

The most important supporting document required in commercial bank financing of exports is the bill of lading. Of secondary importance are the commercial invoice, consular invoice, and insurance certificate. These are explained briefly in the following subsections.

1.4.1. Bills of Lading

Of the shipping documents, the bill of lading (B/L) is the most important. It serves three main and separate functions:

1. It is a contract between the carrier and shipper (exporter) in which the former agrees to carry the goods from port of shipment to port of destination.
2. It is the shipper's receipt for the goods.
3. The negotiable B/L, its most common form, is a document that establishes control over goods.

A bill of lading can be either a straight or order B/L. A straight B/L consigns the goods to a specific party, normally the importer, and is not negotiable. Because title cannot be transferred to a third party merely by endorsement

and delivery, a straight B/L is not good collateral and, therefore, is used only when no financing is involved.

1.4.2.Commercial invoice:

A Commercial invoice contains an authoritative description of the merchandise shipped, including full details on quality, grades, price per unit, and total value, It also contains the names and address of the exporter and importer, the number of packages, any distinguishing external marks. the payments terms, other expenses such as transportation and insurance charges, and fees collectible from the importer, the name of the vessel, the ports of departure and destination, and any required export or import permit numbers.

1.4.3. Insurance:

All cargoes going abroad are insured. Most of the insurance contracts used today are under an open, or floating, policy, this policy automatically covers all shipments made by the exporter, thereby eliminating the necessity of arranging individual insurance for each shipment. To evidence insurance for a shipment under an open policy, the exporter makes out an insurance certificate on forms supplied by the insurance company. This certificate contains information on the goods shipped. All entries must conform exactly with the information on the B/L, on the commercial invoice and, where required, on the consular invoice.

1.4.4. Consular Invoice:

Exports to many countries require a special consular invoice, which varies in its details and information requirements from nation to nation, is presented to the local consul in exchange for a visa. The form must be filled out very

carefully, for even trivial inaccuracies can lead to substantial fines and delays in customs clearance. The consular invoice does not convey any title to the goods being shipped and is not negotiable.

1.10 Summary:

In this lesson, we have examined a number of different financing arrangements and documents involved in international trade. The most important documents encountered in bank-related financing are the draft, which is a written order to pay; the letter of credit, which is a bank guarantee of payment provided that certain stipulated conditions are met; and the bill of lading, the document covering actual shipment of the merchandise by a common carrier and title. Documents of lesser importance include commercial and consular invoices and the insurance certificate. These instruments serve four primary functions:

a) to reduce both buyer and seller risk
b) to pinpoint who bears those risks that remain
c) to facilitate the transfer of risk to a third party
d) to facilitate financing

<<

Each instrument evolved over time as a rational response to the additional risks in international trade posed by greater distances, the lack of familiarity between exporters and importers, the possibility of government imposition of exchange controls.

1.11 Glossary:

Draft: An unconditional order in writing – signed by a person, usually the exporter, and addressed to the importer – ordering the importer or the importer's agent to pay, on demand or at a fixed future date, the amount specified on its face.

Exchange Risk: The variability of a firm's value that is due to certain exchange rate changes.

Factor: Specialized buyer, at a discount, of company receivables.

Letter of Credit: A letter addressed to the seller, written and signed by a bank acting on behalf of the buyer, in which the bank promises to honour drafts drawn on itself if the seller coforms to the specific conditions contained in the letter.

1.12 Self Assessment Questions:

1. Briefly explain various payment terms involved in international trade.
2. Explain the importance of letter of credit to various parties involved in it.
3. What are the various documents that are normally used in international trade?

1.7. Further Readings:

1. Alan C Shapiro, Multinational Financial Management (2002), Prentice-Hall of India, New Delhi.
2. Prakash G Apte, Global Business Finance, Tata McGraw-Hill Publishing Company Limited, New Delhi.
3. David K. Eiteman, Arthur I. Stonehill, Michael H Moffett, Multinational Business Finance, Addison Wesley Longman (Singapore) Pte. Ltd, New Delhi.
4. Prakash G Apte, International Financial Management, Tata McGraw-Hill Publishing Company Limited, New Delhi.
5. Ephraim Clark, International Financial Management, Thomson, New Delhi.
6. Kirt C.Butler, Multinational Finance, Thomson, New Delhi.

Lesson 5: Export and Import Financing

Objectives:

After studying this lesson you should be able:

- To understand the financing techniques in international trade
- To know the various government programs to help finance exports

- To understand different forms of countertrade

Structure

1.11 Introduction:

The following sections provide an overview of trade finance. Various financing techniques in international trade were described. Governments of most export-oriented industrilized countries have special financial institutions that provide some form of subsidized credit to their own national exporters. These export finance institutions offer terms that are better than those generally available from the competitive private sector. Thus, domestic tax payers are subsidizing lower financial costs for foreign buyers in order to create employment and maintain a technological edge.

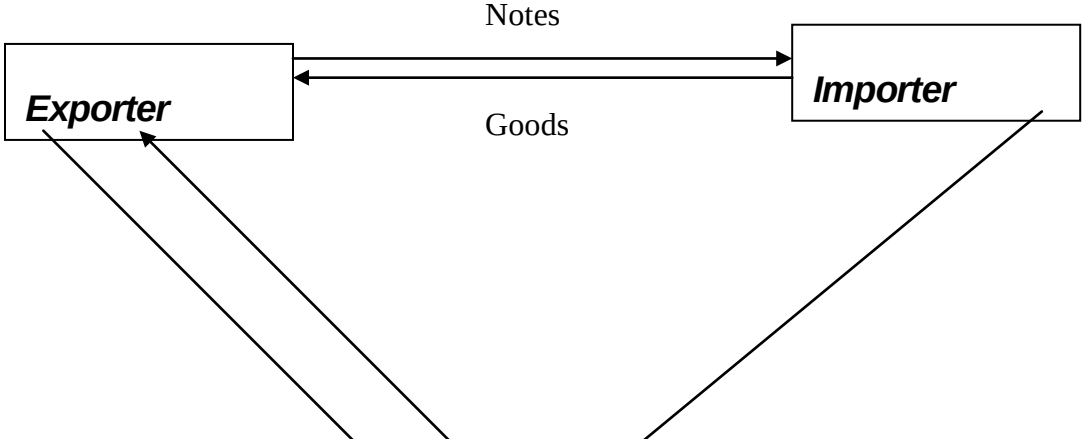
1.12 Financing Techniques in International Trade:

The following are some of the financing techniques used by international companies in international trade.

1.2.1. Cross-border leasing represents an alternative to imports and trade finance. Equipment such as aircraft, ships, oil drilling rigs, etc. can be leased from international leasing firms. Some international merchant banks specialize in cross-border leasing. Foreign banks in the importer's country may also have the expertise to structure complex leasing deals.

1.2.2.Forfaiting is a specialized form of trade finance that allows the exporter to offer extended credit to the importer. Under this mechanism, the importer gives the exporter a bundle of bills of exchange or promissory notes covering the principal amount as well as the interest. Each tranche of the notes fall due at different points of time in the future, e.g. every six months, extending up to several years. The notes are backed by a guarantee or aval provided by a reputed bank in the importer's country. The exporter can then discount these notes without recourse with banks who specialize in the forfaiting business to generate an immediate cash flow. This means that if either the importer or the guaranteeing bank fails to pay when notes fall due, the forfaiter cannot ask the exporter for reimbursement. The credit risk is assumed entirely by the forfaiter. The forfaiter in turn, may hold the notes in its own portfolio or sell different tranches in the secondary market (obviously at a discount smaller than what was charged to the exporter). Exhibit.1 provides a schematic picture of the forfaiting mechanism. Forfaiting tends to be a specialized business because each underlying export-import transaction generally has unique features.

Exhibit 1



Notes Discounted Repayment
Payment Over time

Forfaiter

1.2.3. Buyer's Credits are a form of Eurocurrency loans designed to finance a specific transaction involving import of goods and services. Under this arrangement, lending bank(s) pay the exporter on presentation of shipping documents. The importer works out a deferred payment arrangement with the lending bank, which the bank treats as a loan. Large loans are club loans or syndicated loans. Many provisions in the loan agreement are quite similar to a general purpose syndicated credit. However, a number of formalities have to be completed before the exporter can draw funds. The interest rate of the loan is linked to a market index such as LIBOR. In some cases, a state Export Credit Agency from the exporter's country may pay a subsidy to the banks so that an attractive funding cost can be offered to the importer.

1.2.4. Lines of Credit are like buyers' credits but are much wider in scope. A typical buyer's credit involves one transaction between one supplier and one buyer. A line of credit covers several purchase transactions with the buyer importing different items from different suppliers. Many buyers can also be involved provided the ultimate credit risk is that of a single buyer or guarantor.

1.2.5. Supplier's credit: In a supplier's credit, the exporter extends credit to the importer by allowing it to pay on a deferred payment basis. Promissory notes issued

by the importer evidence the credit. Like in forfaiting, the supplier can discount the paper with a bank. The payments made by the buyer under the promissory notes are assigned to the lenders and may be routed to them directly or through the supplier. Again the supplier may have to share the responsibility of pursuing payment on the bank's behalf in case of default on the part of the buyer.

1.3. Government Source of Export Financing and Credit Insurance:

1.3.1. EXIM Bank:

The Export-Import Bank of India, set-up in 1982, for the purpose of financing, facilitating and promoting foreign trade of India, is the principal financial institution in the country for co-ordinating working of institutions engaged in financing exports and imports. The Exim Bank is fully owned by the Government of India and is managed by a Board of Directors with representation from Government, financial institutions, banks and business community. The operations are grouped into Project Finance, Trade Finance and Overseas Investment Finance, supported by Planning and Co-ordination Groups.

Objectives and Functions:

The objectives and functions of the Exim Bank include the following:

1. Grant of loans and advances in India solely or jointly with commercial banks to persons exporting or intending to export from India goods which may include the export of turnkey projects and civil consultancy services.

2. Grant of lines of credit to Governments, financial institutions and other suitable organisations in foreign countries to enable person outside India to import from India goods including turnkey projects, civil construction contracts and other services, including consultancy services.
3. Handling transactions where a mix of government credit and commercial credit for exports is involved.
4. Purchasing, discounting and negotiating export bills.
5. Selling or discounting export bills in international markets.
6. Discounting of export bills negotiated or purchased by a scheduled bank or financial institution notified by government, or granting loans and advances against such bills.
7. Providing refinance facilities to specified financial institutions against credits extended by them for specified exports or imports.
8. Granting loans and advances or issuing guarantees solely or jointly with a commercial bank for the import of goods and services from abroad.
9. Issuing confirmation/endorsing letters of credit on behalf of exporters in India, negotiating, collecting bills under letters of credit, opening letters of credit on behalf of importers of goods or services and negotiating documents received thereunder.
10. Buying and selling foreign exchange and performing such other functions of an authorised dealer as may be necessary for the discharge of the functions of an export-import bank.
11. Undertaking and financing research, surveys and techno-economic studies bearing on the promotion and development of international trade.
12. Providing technical, administrative, and financial assistance to any exporter in India or any other person who intends to export goods from India for the promotion, management or expansion of any industry with a view to developing international trade.

The Exim Bank extends both funded and non-funded assistance for promotion of foreign trade. The funded assistance programme of the Bank includes direct financial assistance to exporters, rediscounting of export bills, technology and consultancy services financing, refinancing of export credit and re-lending facility to banks abroad. The non-funded assistance is in the form of guarantees which are in the form of bid bonds, advance payment and performance guarantees, retention money guarantees and guarantees for raising finance abroad.

The Exim Bank participates with commercial banks in India in the issuance of guarantees in foreign currencies on behalf of Indian exporters/contractors in favour of overseas importers/employers and banks. The Exim Bank also provides information and advisory services to enable exporters to evaluate the international risks, export opportunities and competitiveness. These include country studies, merchant banking services, advice on international marketing and data to enable effective participation in opportunities offered by projects by multilateral institutions.

Further, the Bank carries out Research and Analysis on specific industry sub-sectors with export potential and international trade related subjects. These are widely disseminated amongst exporters, academicians, industry and trade organisations and government. Thus, the Exim Bank follows a multi pronged strategy to promote Indian exports. More than export finance, the Bank is engaged in export capability creation.

1.3.2. Export Credit Guarantee Corporation of India Ltd - Its Role in Export Credit Risk Insurance:

The Export Credit Guarantee Corporation of India Ltd., a company wholly owned by Government of India and which functions under the administrative control of the Ministry of Commerce, has a number of schemes to cover

several risks which are not covered by the general insurers. The primary role of ECGC is to support and strengthen the export promotion drive in India by:

(i) Providing a range of credit risk insurance covers to exporters against loss in export of goods and services, and

(ii) Offering guarantees to banks and financial institutions to enable exporters to obtain better facilities from them.

In other words, the objectives of ECGC are:

1. To provide insurance cover to exporters against political risks and commercial risks.
2. To provide insurance cover to exporters against the risk of exchange rate fluctuations in respect deferred payments.
3. To provide insurance cover to banks against export credit and guarantees extended by them.
4. To provide insurance cover to Indian investors abroad against political risks.

Insurance Covers

The covers issued by ECGC may be broadly divided in to the following four groups:

1. Standard policies issued to exporters to protect them against payment risks involved in exports on short-term credit.

2. Specific policies designed to protect Indian firms against payment risks involved in exports on deferred terms of payment, services rendered to foreign parties, and construction works and turnkey projects undertaken abroad.

3. Financial guarantees issued to banks in India to protect them from risks of loss involved in their extending financial support to exporters at the pre-shipment as well as post-shipment stages.

4. Special schemes.

Standard Policies

ECGC has designed four types of Standard Policies to provide cover for shipments made on short-term credits.

1. Shipment (Comprehensive Risks) Policy which covers both commercial and political risks from the date of shipment.

2. Shipments (Political Risks) Policy which covers only political risks from the date of contract.

3. Contracts (Comprehensive Risks) Policy which covers both commerical and political risks from the date of contract.

4. Contracts (Political Risks) Policy which covers only political risk from the date of contract.

1.4 Countertrade:

The word Countertrade refers to a variety of international trade arrangements in which goods and service are exported by a manufacturer with compensation linked to that manufacturer accepting imports of other goods and services. The countertrade may take place at the same time as the original export, in which case credit is not an issue: or the countertrade may take place later, in which case financing becomes important.

Conventional wisdom is that countertrade takes place with countries having strict foreign exchange controls, countertrade being a way to circumvent those controls; and that countertrade is more likely to take place with countries having low creditworthiness. However, according to some studies the contrary findings emerged. They are; (1) countries that ban inward foreign direct investment have a significantly higher propensity to engage in countertrade, (2) the higher the level of political risk (i.e. environmental volatility) perceived by foreign investors, the higher the level of countertrade, and (3) the more extensive the degree of state planning, the greater the level of countertrade.

Three types of transactions avoid the use of money:

a) Simple Barter

Simple barter is a direct exchange of physical goods between two parties. It is a one-time transaction carried out under a single contract that specifies both the goods to be delivered and the goods to be received. The two parts of the transaction occur at the same time, and no money is exchanged. Money may, however, be used as the numeraire by which the two values are established and the quantities of each good are determined.

b) Clearing Arrangements.

In a clearing arrangement, each party agrees to purchase a specific (usually equal) value of goods and services from the other, with the cost of the transactions debited to a special account. At the end of the trading period any residual imbalances may be cleared by shipping additional goods or by a hard currency payment. In effect, the addition of a clearing agreement to a barter scheme allows for a time lag between barter components. Thus, credit facilitates eventual matching of the transactions.

c) Switch Trading:

Switch trading involves transferring use of bilateral balances from one country to another. For example, an original export from, say, Canada to Romania is paid for with a balance deposited in a

clearing account in Romania. Although the clearing account may be measured in Canadian dollars or any other currency, the balance can be used only to purchase goods from Romania. The original Canadian exporter might buy unrelated goods from Romania, or it might sell the clearing balance at a discount to a "switch trader" who in turn purchase from Romania for sale elsewhere.

Three types of transactions use money or credit but impose reciprocal commitments:

a) Buyback or Compensation Agreement:

A compensation agreement, also called a buyback transaction, is an agreement by exporter of plant or equipment to take compensation in the form of future output from that plant. Such an arrangement has attributes that make it, in effect, an alternative form of direct investment. The value of the goods received back usually exceeds the value of the original sale, as would be appropriate to reflect the time value of money.

b) Counterpurchase:

A counterpurchase involves an initial export, but with the exporter receiving back merchandise that is unrelated to items the exporter manufactures. A widely publicized early example was the export of jet aircraft by McDonnell Douglas to Yugoslavia with payment partly in cash and partly in Zagreb hams, wines, dehydrated vegetables and even some power transmission towers designated eventually for the City of Los Angeles. McDonnell Douglas has the responsibility for reselling the goods received.

c) Offset:

Offset refers to the requirement of importing countries that their purchase price be offset in some way by the seller. The exporter may be required to

source some of the production locally, to increase imports from the importing country, or transfer technology.

1.13 Summary:

The process of international trade is facilitated by various governmental programs in getting direct financial support and export credit insurance. From the standpoint of international financial managers, the most significant difference between public and private sources of financing is that public lending agencies offer their funds and credit insurance at less than normal commercial rates. The multinational firm can take advantage of these subsidized rates by structuring its marketing and production programs in accord with the different national financial programs. Countertrade provides an alternative to traditional importing and exporting. In countertrade, a seller provides a buyer with goods or services and promises in return to take back (barter) or purchase (other forms of countertrade) goods or services in partial or full payment.

Glossary

Forfaiting is a specialized form of trade finance that allows the exporter to offer extended credit to the importer. Under this mechanism, the importer gives the exporter a bundle of bills of exchange or promissory notes covering the principal amount as well as the interest.

Buyer's Credits are a form of Eurocurrency loans designed to finance a specific transaction involving import of goods and services.

LIBOR: London Interbank Offer Rate. The deposit rate applicable to interbank loans in London. LIBOR is used as the reference rate for many international interest rate transactions.

Offset: Offset refers to the requirement of importing countries that their purchase price be offset in some way by the seller.

Self Assessment Questions

What are the financing techniques that are in vogue in international trade?

Explain the objectives and functions of EXIM Bank.

Describe the role of ECGC in providing Export Credit Risk Insurance.

What are the different forms of countertrade? Explain them briefly.

1.8. Further Readings:

Alan C Shapiro, Multinational Financial Management (2002), Prentice-Hall of India, New Delhi.

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Unit – V - Chapter I

Control and Tax Aspects of Multinational Companies

Synopsis

I. Introduction,
II. Multinational Companies (MNCs)
III. Multinational Financial System
IV. Control of Multinational Companies
V. Tax Aspects of Multinational Companies

I. INTRODUCTION

International business is the result of the comparative advantages of every country. That is every country is blessed with a lot of resources and with the help of the resources, the countries are able to increase their production. Once the population is fully satisfied with the produced products and the excess if any, then the country will be going for the internationals. International business activity is not new. The transfer of goods and services across national borders has been taking place for thousands of years, antedating even Joseph's advise to the rulers of Egypt to establish that nation as the granary of the Middle East Since the end of the world war II, however, international business has undergone a revolution out of which has emerged what is the probably the most important economics phenomenon of the latter half of the twentieth century: he Multinational Companies (MNC)

II. THE MULTINATIONAL COMPANIES (MNCs)

The *Multinational Companies are the companies established with a view to produce and sell goods and* services in more than one country. Mainly the parent company or the company registered initially will be situated in the home country where it was registered and they may have their branches in the other countries and thereby they function or otherwise,

the parent company will purchase the majority of the shares of the other company or companies situated in other countries and convert them as its subsidiary company or companies and through them the parent company will sell their products of goods and services. Some MNCs have upwards of 100 foreign subsidiaries scattered around the world.

Based in part on the development of modern communication and transportation technologies, the raise of the Multination National Companies was unanticipated by the classical theory of International Trade as first developed by Adam Smith and David Ricardo. According to this theory, which rests on the Doctrine of comparative advantages, each nation should specialized in the production and exports of those good that it can produce with highest relative efficiency and import those good that other nation can produce relative more efficiently.

> Natural resources have lost much of their previous role in national specialization as advanced, knowledge intensive societies move rapidly into the age of artificial materials and genetic engineering. Capital moves around the world in massive amounts at the speed of light; increasingly, Companies raise capital simultaneously in several major markets. Labour skills and labour wages in these countries can no longer be considered fundamentally different; many of the student enrolled in American Graduate Schools are foreign, while training has become a key dimension of many joint venture between international Companies. Technology and "Know –how" are also closed to becoming a global pool. Trends in protection of intellectual property and exports controls clearly have less impact than the massive development of the means to communicate, duplicate, store, reproduced information.

Against this background, the ability of Companies of all sizes to use these globally available factors of production is a far bigger factor in international competitiveness than broad macroeconomics difference among countries. Contrary to the postulates of Smith and Ricardo, the very existence of the multinational enterprise is based on the international mobility of factors of production. A Swiss based pharmaceutical firm to finance the acquisition of German equipment by a subsidiary in Brazil may use capital raised in London on the Euro dollars market.

It is the globally coordinated allocation of resources by a single centralized management that differentiates the multinational enterprise from other firms engaged in international business. MNCs make decisions about market-entry strategy; ownership of

foreign operations; and production, marketing, and financial activities with an eye to what is best for the Companies as a whole. The true MNCs emphasizes group performance rather than the performance of its individual parts.

III. THE MULTINATIONAL FINANCIAL SYSTEM

The Multi National Companies (MNCs) are entirely different from the Domestic Companies. They have vast financial resources, enlarged scope of their operations, ability to mobile their funds, sophisticated departments, strong managerial backup, internal financial transfer mechanisms etc. Generally, the domestic companies cannot compete the MNCs in any way. These special characteristics collectively are called as the multinational *financial system.*

III.1 The Value Of The Multinational Financial System

According to Prof Allen C Shapiro, the ability to transfer funds and to reallocate profits internally presents multinationals with three different type of arbitrage opportunities.

1. *Tax arbitrage*: MNCs can reduce their tax burden by shifting profits from units located in high-tax nations to those in lower-tax nations. Or they may shifts profits from units in a taxpaying position to those with tax losses.

2. *Financial market arbitrage*: By transferring funds among units, MNCs may be able to circumvent exchange controls, earn higher risk-adjusted yields on excess funds, reduce their risk adjusted cost of borrowed funds, and tap previously unavailable capital sources.
3. *Regulatory system arbitrage*: when subsidiary profits are a function of government regulations.

III.2 Inter-company Fund-Flow Mechanisms

The MNCs can be visualized as *unbundling* the total flow of funds between each pair of affiliates into separate components that are associated with resources transferred in the form of products, capital services and technology. The different channels available to the multinational enterprise for moving money and profits internationally include transfer pricing, fee and royalty adjustments, leading and lagging, inter-company loans,, dividend adjustment, and investing in the form of debt versus equity.

Tax factor: Total tax payments on inter-company funds transfers are dependent on the tax regulations of both the host and the recipient nations. The host country ordinarily has two types of taxes that directly affect tax costs: corporate income taxes and withholding taxes on dividend, interest, and fee remittances. In addition, several countries, such as Germany and Japan, tax retained earnings at a difficult (usually higher) rate than earnings paid out as dividends.

Transfer Pricing : The pricing of goods and services traded internally is one of the most sensitive of all management subjects. Each government normally presumes that multinational use *transfer pricing* to its country's detriment. The most important uses of transfer pricing include (1) reducing taxes, (2) reducing tariffs, and (3) avoiding exchange controls. Transfer prices may also be used to increase the MNCs share of profits from a joint venture and to disguise an affiliate's true profitability.

Exchange Controls. Another important use of transfer pricing is to avoid currency controls. In fact, bypassing currency restrictions appears to explain the seeming anomaly whereby subsidiaries operating in less-developed countries (LDCs) with low tax rates are sold overpriced goods by other units.

Joint Ventures. Conflicts over transfer pricing often arise when one or more other partners own one of the affiliates involved jointly. The outside partners are often suspicious that

transfer pricing is being used to shift profits form the joint venture, where they must be shared, to a wholly owned subsidiary.

Disguising Profitability. Many LDCs erect high tariff barriers in order to develop import-substituting industries. However, because they are aware of the potential for abuse, many host governments simultaneously attempt to regulate the profit of firms operating in such a protected environment. When confronted by a situation where profits depend on government regulations, the MNC can use transfer pricing (buying goods from on affiliates at a higher price) to disguise the true profitability of its local affiliate, enabling it to justify higher local prices.

Evaluation and Control: Transfer price adjustments will distort the profits of reporting units and create potential difficulties in evaluating managerial performance. In addition, managers evaluated on the basis of these reported profits may have an incentive to behave in ways that are sub-optimal for the Companies as a whole.

Fees and Royalties: Management services such as headquarters advice, allocated overhead, patents, and trademarks are often unique and therefore, are without a reference market price. The consequent difficulty in pricing these corporate resources makes them suitable for use as additional routes for international funds flows by varying the *fees and royalties* charged for using these intangible factors of production. For MNCs, these charges have assumed a somewhat more important role as a conduit for funneling remittances from foreign affiliates. To a certain extent, this trend reflects the fact that many of these payments are tied to overseas sales or assets that grew very rapidly during 1960s and early 1970s, as well as the growing importance of tax considerations and exchange controls.

Leading and Lagging: A highly favored means of shifting liquidity among affiliates is an acceleration (leading) or delay (lagging) in the payment of inter affiliate accounts by modifying the credit terms extended by one unit to another.

Shifting Liquidity. The value of leading and lagging depends on the opportunity cost of funds to both the paying unit and the recipient. When an affiliate already in a surplus position receives payment, it can invest the additional funds at the prevailing local lending rate; if it requires working capital, the payment received can be used to reduce its borrowings at the borrowing rate; if it is in a deficit position, it has to borrow at the borrowing rate.

Government Restrictions. As with all other transfer mechanisms, government controls on inter-company credit terms are often tight and given to abrupt charges. While appearing straightforward on the surface, these rules are subject to different degrees of government interpretation and sanction.

Inter-company Loans: A principal means of financing foreign operations and moving funds internationally is to engage in inter-company lending activities. The making and repaying of inter-company loans is often the only legitimate transfer mechanism available to the MNC. Inter-company loan are more valuable to the firm than arm's length transactions only if at least one of the following market distortions exist: (1) credit rationing (due to a ceiling on local interest rates), (2) currency controls, or (3) differential tax rates among countries.

Back-to-Back Loans. *Back-to-back loans,* also called *fronting loans* or *link financing*, are often employed to finance affiliates located in nations with high interest rates or restricted capital markets, especially when there is a danger of currency controls or when different rates of withholding tax are applied to loan from a financial institution.

Parallel Loans. *A parallel loan* is a method of effectively repatriating blocked funds (at least for the term of the arrangement), circumventing exchange control restrictions, avoiding a

premium exchange rate for investments abroad, financing foreign affiliates without incurring additional exchange risk, or obtaining currency financing at attractive rates.

Dividends: *Dividends* are by far the most important means of transferring funds from foreign affiliates to the parent company. Among the various factors that MNCs consider when deciding on dividend payments by the affiliates are taxes, financial statement effects, exchange risk, currency controls, financing requirements, availability and cost of funds, and the parent's dividend payout ratio, Firms differ, though in the relative importance they place these variables, as well as in how systematically the variables are incorporated in an overall remittance policy.

IV. CONTROL OF MULTINATIONAL COMPANIES

The Currency risk affects all facets of the company's operation and therefore it should not be the concern of financial managers alone. All managers should function effectively and try to increase the productivity of their respective departments. The key to effective exposure management is to integrate currency considerations into the general management process of the MNCs. Since the finance is the life blood of the business of the MNCs and the requirements are also very heavy, the executives, managers and administrators are to be very careful in their functions of day to day routine. Moreover, the MNCs are joining and collaborating more than two countries, which require an absolute and extraordinary exercise on the controlling factors.

Besides the effective planning and organising the activities at global level, staffing, leading, communicating and controlling are to be very carefully exercised. Of all, the controlling functions are essentially coordinating

functions between the different countries. Since the staff of the parent company and affiliated country's company or branches are of the entirely different from each other. Different types of controlling techniques are to be stragised and carefully executed. Even a small lacuna will make the whole exercise as null and void besides wasting and reducing the earning per share (EPS).

The Rules, Fluctuating Exchange Rates, Position Of Market both in domestic and at global level, Diminishing Marginal Productivity at all the levels of the organisation by enjoying the benefits but does not contributing anything to the organisation, unstable Political Scenario in the affiliated countries, Natural Calamities, Extraction and Depletion of the Natural Resources of the countries are the factors determining the controlling aspects of the MNCs. MNCs are to be carefully controlled by the actual meaning of the term Control. At the same time, the MNCs should not be allowed to damage the growth and developments of the domestic units of any kind. One should not cut his own neck just only because of the reason that the knife is made out of Gold and Platinum.

V. TAX ASPECTS OF THE MULTINATIONAL COMPANIES

Synopsis:

SCOPE OF TAX CHARGE

RESIDENTIAL STATUS

PLACE OF EARNING INCOME AND TAX LIABILITY

OBJECTIVES OF THE TAXATION

Tax Neutrality
Domestic neutrality
Foreign neutrality:
Tax Equity

CERTAIN TAX IMPLICATIONS OF FOREIGN ACTIVITIES OF INDIAN COMPANIES

Taxation of Exchange Gains or Losses
Tax Incentives For Earnings In Foreign Currency
Newly established industrial undertakings in free trade zones
Newly established hundred percent export oriented undertakings
Projects for construction or execution of work outside India
Export of Goods or Merchandise outside India

The Calculation of Deductions
Earnings in Convertible foreign exchange

Profits from export of Computer Software and other related Technical Services

Royalty, Fees, Commission, etc., received from the Foreign Companies

TAX IMPLICATIONS OF ACTIVITIES OF MNCS IN INDIA

Qualification of Taxable Income

Tax Rates

Representative assessees

Tax incentives

Advance Ruling

Double Taxation Relief

Bilateral Relief

Unilateral Relief

INTRODUCTION

Generally Tax is the compulsory payment to be made by the income earner to the government. Simply one can not escape from the payment of making tax. Every country is having its own calculation, principles and functions of the tax. The MNCs have to make the payment of tax to the country where its business is effected. Under these circumstances only the difficulty of managing the tax arises. Because, the parent company will be situated in one country whereas the subsidiary companies will be situated in different countries. So a clear cut tax planning is absolutely essential in order to exercise the

Management of Tax at International Level. International tax planning involves using the flexibility of the multinational Companies in structuring foreign operation and remittance policies in order to maximize global after-tax cash flows. Tax Management is difficult because the ultimate tax burden on a multination firm's income is the result of a complex interplay between the heterogeneous tax systems of home and host governments, each with its on fiscal objectives. Before going in detail one should understand the scope of the tax charge.

SCOPE OF TAX CHARGE

The scope of the tax charge is divided in to two namely Residential Status and Place of Earning and Tax Liabilities

RESIDENTIAL STATUS

Every country develops its own rules to determine the scope of income that it can tax. These rules create liability to tax each year by linking the residential status of the income earning entity and the place where the income earned. In terms of residential status the Act stipulates that in respect of each previous year, any person (individual, firm, company, etc.) is treated as either "resident" or "none resident" in India. An individual who is resident can once again be considered as either " ordinarily resident "or a " not ordinarily resident". In the case of an individual the residential status depends upon the duration of his stay in India during the previous year under consideration. A firm or a company is treated as resident or non- resident depending on whether the control and management of its affairs is situated wholly in India or outside India respectively during the previous year. An Indian company is always treated as resident. It may be noted that the definition of residential status under the Act has nothing in common with the definition given under the Foreign Exchange Regulations Act.

PLACE OF EARNING INCOME AND TAX LIABILITY

Any person who is a resident and ordinarily resident during previous year is liable to tax in India on the world income - Which is received or deemed to be received in India; or Which accrues or arises or deemed to accrue or arise in India; or Which accrues or arises outside India. Non –residents are liable to tax only in respect of the first two categories of

income. An individual who is resident but not ordinarily resident is taxed on the first two categories of income plus the income that accrues or arises outside India, which is derived from a business, controlled in or a profession setup in India.

An income accrues or arises in the place of its source. For example, income from business accrues in the country where the business is carried and rental income is earned in the place where the property is located. Though an income accrues or arises outside India, it is taxable in India if it is received in India. Suppose a non –resident who owns a house in London which is let out, receives from the tenant the rent in India, such rent will be taxed in India as income received in India under item (1) above. On the contrary, if the tenant pays the rent to the account of the landlord in a London bank and the banker sends the same to the non – resident in India, the same is not taxed in India for the reason that the rent was received first as income by the bank in London and thereafter it passes as money and not as income to India.

OBJECTIVES OF THE TAXATION

The Objectives of the International Taxation is the Neutrality and Equity. According to Professor Allen C Shapiro, the following are the theoretical aspects of the objectives of the Taxation.

Tax Neutrality

A *neutral tax* is one that would not influence any aspect of the investment decision such as the location of the investment or the nationality or the investor. The basis justification for tax neutrality is economy efficiency. World welfare will be increase if capital is free to move from countries were the rate of return is low to those where it is high. Therefore, if the tax system distorts the after-tax profitability between two investments or between two investor leading to a different set of investments being undertaken, then gross world product will be reduced. Tax neutrality can be separated into domestic and foreign neutrality.

Domestic neutrality is an compasses the equal treatment of US citizen investing at home and US citizen investing abroad. The key issues to consider here are whether the marginal tax burden is equalized between home and host countries and whether such equalization is desirable.

Foreign neutrality: The theory behind *Foreign neutrality* in taxation is that the tax burden placed on the foreign subsidiaries of US funds should equal that imposed on foreign-owned competitor operating in the same country.

Tax Equity

The basis of *tax equity* is the criterion that all tax payers in a similar situation be subject to the same rules. All US Companies should be taxed on income, regardless of where it is earned. This, the income of a foreign branch should be taxed in the same manner that the income of a domestic branch is taxed. This form of equity should neutralize the tax consideration in a decision on foreign location versus domestic location. The basic consideration here is that all similarity situated taxpayers should help pay the cost of operating a government.

CERTAIN TAX IMPLICATIONS OF FOREIGN ACTIVITIES OF INDIAN COMPANIES

Taxation of Exchange Gains or Losses

Gains are always different from the Profits. Profit is generally related to the revenue income whereas the gain is always related to the capital income. Before we discuss the aspect of treatment of exchange gains or losses for purposes of taxation, it will be useful to consider certain basic concepts relating to taxability of expenditures and losses. For the purpose of taxation receipts, expenditures and losses are divided into capital and revenue in nature.

A capital receipt is not taxed as income unless otherwise stated. For example, if a person (who is not a detective) receives a reward for restoring a lost property to its owner, it is not treated as income receipt and hence not taxed. Similarly, capital expenditure is not allowed

as a deduction in computing the taxable income. For example, if a company incurs expenditure for laying internal roads within its factory, such outlay is treated as a capital expenditure and hence not allowed as a one-time deduction in computing the taxable income. But a loss on capital account is not allowed as a deduction in computing the income, while the loss, which not on capital account is allowed as a deduction. For example, if certain furniture used for business as fixed assets and certain trading stock or destroyed by fire and these assets were not insured then, the loss of furniture will not be allowed as a deduction on the ground that this is on capital account while the loss of stock in trade will be deducted in computing the income of the concern.

The aforesaid general rules are applied in dealing with the exchange gains and losses also. The principle of law in this regard is stated by the Supreme Court in the case of Sutlej Cotton Mills Limited vs Cit[1979] 116 ITR in page number 13,thus:

" The law may, therefore, now be taken to be well settled that where profit or loss arises to an assessee on account of appreciation or depreciation in the value of foreign currency held by it, on conversion into another currency, such profit or loss would ordinarily be trading profit or loss if the foreign currency is held by the assessee on revenue account or as a trading asset or as part of circulating capital embarked in the business. But if on other hand, the foreign currency is held as a capital, such profit or loss would of capital nature".

Some of the decided case laws relating to treatment of exchange gain which are in conformity with the rule stated by Supreme Court as above are mentioned below by way of amplification.

1) In the case of EID parry ltd.[174 ITR11], the promoters of the company made contribution towards share capital in pound sterling and this amount was kept in a bank in the UK. After a few months this was repatriated into India and there was an

exchange gain on conversion. It was held that this was capital in nature and hence not taxable.

2) In the case of Triveni Engineering works [156 ITR 202], The company converted a loan of pound sterling 50000 into equity capital and this resulted in translation gain. It was held that this gain was on capital account and hence not taxable.

3) In the this case of TELCO[60 ITR 405], The company accumulated certain incomes earned and loan repayments in the US with an agent in the US for buying equipment. The equipment could not be acquired hence the money was repatriated resulting in exchange gain. This was held to be not taxable being capital in nature.

4) In the case of Hindustan Aircraft ltd.[49 ITR 471], The company was doing assembling and servicing of aircraft in the US. There was appreciation in rupee value of the balance held in US dollars. It was held being on revenue account.

5) Imperial tobacco company bought US dollars for buying tobacco in the US. Due to war, the Indian govt. did not permit this import and the company surrendered the US dollars and made a gain in the process. It was held that this gain is taxable being on revenue account.

After the devaluation of rupee on june-6-1966, a provision [section 43A] was introduced in the income tax Act, 1961 W.E.F APPRIL1,1967 to deal with certain types of exchange gains and losses relating to acquisition of fixed assets outside India incurring liability in foreign currency. According to this provision, where an assessee acquires any fixed asset from a country outside India and incurs any liability in foreign currency in connection with such acquisition and there is increase or decrease such liability expressed in rupees during any previous year due to change in the rate of exchange, then such gain or loss shall be adjusted to

the historical cast of the asset concerned for the purposes of claiming deduction towards depreciation or claiming 100%deduction as capital expenditure on scientific research or for computing gains on sale of such assets.

It may be noted that but for this provision all exchange losses and gains of the nature specified above would have been treated as arising on capital account. Consequently the losses would not have been allowed as deduction in arriving at the taxable income and the gains would not form part of taxable income and hence not taxed. As a result of introduction of this section such exchange losses and gains enter the computation of taxable income by way of either increased depreciation (when exchange losses are added to the cost of asset) or reduced depreciation (when exchange gains go to reduce cost of the asset).

Tax Incentives For Earnings In Foreign Currency

Taxation has been used by governments of the world including India as tool for bringing about social and economic change. Provisions have been introduced in the India tax law for encouraging varied activities ranging from promoting family planning amongst employees of a concern to setting up new industrial undertakings. Though the nominal rates of income tax in the Indian context appear to be high, such incentives reduce the tax burden resulting in lower effective rates of income tax. Among other things, such incentives increased the scope for manipulation by assessee and led to interpretational problems and complexity in the administration of tax laws.

The Indian government, having realised the negative implications of tax incentives, has been progressively dismantling these incentive provisions and correspondingly reducing the nominal rates of taxes. In setting like this, earnings in foreign currency by an Indian enterprise are one area where more and more tax incentives are being introduced- obviously with a view to tackle the problem of balance of payments deficits. Of the many incentives the important incentives are for the : Newly established industrial undertakings in free trade zones and Newly established hundred percent export oriented undertakings

Newly established industrial undertakings in free trade zones

Newly established industrial undertaking in free trade zones, electronic hardware technology parks are software technology parks whose experts are not less than 75% of the total sales for the previous year can claim exemption of 100% of their profits and gains derived from such industrial undertakings in respect of any five consecutive assessment years, falling within a period of eight years beginning with the assessment year relevant to the previous year in which the industrial undertaking begins to manufacture or produce articles are things, specified by the assessee at his option. This section applies to kandla free trade zone, Santa Cruz Electronics Export processing zone or any other free trade zone as prescribed by the central govt. by notification in the official gazette or the technology parks setup under a scheme notified by the central govt., for the purpose of this section.

Newly established hundred percent export oriented undertakings

This provision extends the same type of benefit as allowed for the industrial undertakings setup in a free trade zones or technology park, to newly established undertakings whose exports are not less than 75% of the total sales for the previous year. For the purpose pf the section "100% exports oriented undertakings"

Projects for construction or execution of work outside India

Any resident company engaged in the execution of a project for the:

- Construction of any building, road, bride, dam or other structure outside India.
- Assembly or installation of any machinery or plant outside India.
- Execution of such other work as may prescribe.

Can claim 50% of profits and gains relating to execution of such foreign project as deduction in computing as taxable income. In order to claim such deduction, the MNCs must transfer equal amount to the Foreign project Reserve Account.

Export of Goods or Merchandise outside India

This provision allows any resident business entity to claim as deduction form business income, profits attributable to export of goods or merchandise except mineral oil and minerals and ores other than the processed minerals and ores.

The amount of deduction is calculated as follows:

If the assessee is engaged in Export of Trading Goods only, the Profit allowed as deduction, P is determined as follows:

P = Export Turnover of Trading Goods – Direct Cost Attributable to the export Turnover – Indirect Cost

If the assessee is engaged in Export of Only Manufactured Goods, then Profit allowed as deduction, P1 is determined as follows:

P1 = Profits of the Business x Export Turnover of Manufactured Goods / Total Turnover of Business.

If the assessee is engaged in Export of Both Trading & Manufactured Goods, the Profit allowed as deduction, P2 is determined as follows:

P2 = P + P1

Earnings in Convertible foreign exchange

This incentives applies to a resident enterprise engaged in a business of a hotel or tour operator approved by the Director General of the Directorate General of Tourism, Government of India; or of a travel agent or other person (not being an airline or shipping company) who holds the valid license granted by the Reserve bank of India. Such companies can claim 50% of the profit derived from services provided to foreign tourists subject to the other conditions applicable.

Profits from export of Computer Software and other related Technical Services:

A deduction from taxable income is allowed of a sum equivalent to 100% of the profit derived by the resident company engaged in the business of export of Computer Software and other related Technical Services

Royalty, Fees, Commission, etc., received from the Foreign Companies

A deduction is allowed from taxable income of a sum equal to 50% of the income derived by a resident company from a Foreign Company including government of a foreign state in consideration for use outside India of any patent, invention, design or registered trade mark.

TAX IMPLICATIONS OF ACTIVITIES OF MNCS IN INDIA

Foreign non-resident business entities may have business activities in a variety of ways. In its simplest form this can take the form of individual transactions in the nature of exports or import of goods, lending or borrowing of money, sale of technical know how to an Indian enterprise, a foreign air-liner touching an Indian airport and booking cargo or passengers, etc. various tax issues arise on accounts of such activities. The government wants to encourage foreign enterprises to engage in certain types of business activities in India, which in its opinion its desirable for achieving a balanced economic growth. This takes us to the last aspect of activities which enjoy tax incentives in India. The related issues about the taxation of the MNCs are as follows:

- Taxation of transactions and operations of MNCs in India;
- Representative assessees;
- Tax incentives;
- Advance ruling.

Taxation of transactions and operations of MNCs fully depends on the definition of income that is taxable in India, qualification of taxable income and the tax rates.

Income that is taxable in India

All Income accruing or arising whether directly or indirectly through or from any business connection in India

1. Salary is deemed to be earned in India if it is either payable for services rendered in India or payable by Indian Government to a citizen of India for services rendered outside India.
2. Dividend paid by Indian Company outside India
3. Income by the ways of interest by Indian Government.
4. Income by the way of Royalty
5. Income by the way of fees for technical services.
6. Income embedded in the transaction of supply of machinery or plant to an Indian Company.

Qualification of Taxable Income

The following are the provisions of the Qualification of Taxable Income.

1. In case of a business of which all the operations are not carried out in India, only that part of the income as is reasonably attributable to the operations carried out in India can be treated as income accruing or arising in India.

2. In computing the income of an Indian operation, the deduction in respect of expenses incurred by the head office outside India is allowed to the extent of an amount equal to 5% of the adjusted total income of the branch. Adjusted total income means the amount of total income of the assessee for the previous year computed before deducting any carried forward business loss or unabsorbed depreciation of earlier years.

3. No deduction in respect of any expenditure or allowance as stipulated in the act for computing income for business or profession shall be allowed in respect of royalty or fees for technical services rendered, received from government or an Indian concern.

4. In respect of an non – resident assessee engaged in the business of operation of ships, a sum equal to 7.5% of the amount paid or payable to assessee on account of the carriage of passengers, mails, goods, livestock shipped shall be treated as treated as business income and taxed accordingly.

5. Any non – resident assessee engaged in the business of providing services or facilities in connection with, or supplying plant and machinery on hire used, in the prospecting for, or extracting mineral oils will be deemed to have earned a profit of 10% of the amount paid or payable to the assessee on account of the services and facilities in connection with the supply of plant and machinery on hire used, or to be used, in the prospecting for, or extraction or production of, mineral oils in India.

6. In case of an assessee, being MNCs, engaged in the business of civil construction or the business of erecting of plant or machinery, a sum equal to 10% of the amount paid or payable shall be deemed to be the profit and gains of the such business chargeable to tax.

Tax Rates

The following are the tax rates for the non – resident assessees i.e. MNCs.

1. Income by the way of interest or money borrowed- 20%
2. Income from approved mutual fund 20%.
3. Income from capital gain arising from sail of units Unit Trust of India 10%.
4. Income from interest on bonds under the schemes of central government 10%.
5. Long term capital gain arising from transfer of such bonds 10%
6. Income accruing to a foreign institutional invest or from listed securities 20%
7. Short term capital gain arising from transfer of such securities 30%.

8. Long term capital gain arising from transfer of such securities 10%.

Representative assessees

For the purpose of taxation the income tax act treats the agent of the MNCs as the representative assessees. The following persons are considered as representative assessees. Any person:

- who is employed by or on behalf of the non-resident or
- who has any business connection with the non-resident or
- from or through whom the non-resident is in receipt of any income, whether directly or indirectly or
- who is the 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.

Tax incentives

As the tax incentives, the income of the MNCs from the following sources is not treated as the income of the MNCs.

1. Income from interest on such securities or bonds including premium on redemption of such bonds as the Central Government may specify in the official gazette.

2. Income from royalty or fees for technical services received from government or an Indian concern in pursuance of any agreement made by the foreign company with the government or the Indian concern.

3. Income arising to such MNCs the Central government may, by notification in the office gazette, specify in this behalf by the way fees for technical services received in pursuance of the agreement entered into with that government for providing services.

4. Interest payable to any bank incorporated in a country outside India and authorised to perform the functions of Central Bank in that country on any deposits made by it.

Advance Ruling

Being the MNCs are based upon the residence of the other countries, there is a major problem in the payment of tax or assessing the income for tax by the country in which they have their operation. The MNCs may not know about the manner in which the country is going to have its interpretation about the calculation of tax and the provisions of income tax. Practically speaking, there is no provision and mechanism to understand about the above said problem and doubt in advance. To avoid this terrible problem, the facility of advance ruling exclusively for the MNCs has been introduced. Under this scheme, MNCs can make an application in the prescribed form to the authority for advance ruling, a committee located at Delhi comprising of the chairman, who is a retired judge of supreme court, an officer of Indian Revenue Service who is qualified to be a member of the Central Board of Direct Taxes and an officer of the Indian legal service who is qualified to be an additional secretary to the Government of India.

The applicant has to state the question on which the advance ruling is sought. The above mentioned authority can either allow or reject the application after the examining the application and other relevant records. The authority can give an opportunity to the applicant to be heard before rejecting the application and should give the reasons for the rejecting in the order.

Double Taxation Relief

Another risk in the International Business is the payment of taxes in both the countries i.e. the country in which the business is actually effected and in the country where the MNC is having its head office. This type of double taxation will definitely impede the growth and development of the MNCs in multiple ways. So the provisions are made to avoid the double taxation between the two countries through two types of relief namely Bilateral Relief and Unilateral Relief.

Bilateral Relief

Under this scheme, relief against the burden of double taxation is worked out on the basis of mutual agreement between two countries. There are two types of agreements. In one type, the two concerned countries agree that certain incomes which are likely to be taxed in both countries shall be taxed only in of them or that each of the two countries should tax only a specified portion of the income. In the other type, the income subject 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. This is called bilateral relief.

Unilateral Relief

There is no agreement under this scheme. Under unilateral relief, if any MNC who is resident in India in any previous year proves that, in respect of its come which accrued or arose during that previous year outside India, it has paid in country with which there is no agreement for the relief or avoidance of double taxation, income tax by deduction or otherwise, under the law in force in that country, it shall be entitled to the deduction from the Indian Income Tax payable by him of a sum calculated on such double 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. This is called unilateral relief.

Unit – V - Chapter II

Financing a Multinational Company

Synopsis

INTRODUCTION - GLOBALIZATION OF FINANCIAL MARKETS

INTERNATIONAL FINANCIAL MARKETS

- Foreign Access to Domestic Markets
- The Foreign Bond Market.
- The Foreign Bank Market.

The Foreign equity Market.

- The Eurocurrency Market
- Eurocurrency Loans
- Multi-currency Clauses.
- Euro-market Trends.

Eurobonds
Eurobond Secondary Market

FINANCING A MULTI NATIONAL COMPANY
SHORT-TERM FINANCING
IDENTIFYING KEY FACTORS
OBJECTIVES
FINANCING OPTIONS
Inter-company Financing
Local Currency Financing
Bank Loans.
Forms of Bank Credit.
1. *Term loans:*
2. *Line of Credit*:
3. *Overdrafts:*
4. *Revolving credit agreement.*
5. *Discounting.*

INTEREST RATES ON BANK LOANS.
COMMERCIAL PAPER:
EURO NOTES AND EURO-COMMERCIAL PAPER
CALCULATING THE ALTERNATIVE FINANCING OPTIONS
FINANCING FOREIGN TRADE
PAYMENT TERMS IN INTERNATIONAL TRADE
Cash in advance
Letter of Credit
A *revocable L/C*
An *irrevocable L/C,*
A *transferable L/C*
The Draft
Consignment
Open Account
Open account selling
Banks and Trade Financing

DOCUMENTS IN INTERNATIONAL TRADE
Bill of Lading
Commercial Invoice
Insurance
Consular Invoice

FINANCING TECHNIQUES
Straight Bank Financing

Bankers' Acceptances
Discounting
Factoring
Forfaiting

LONG TERM FINANCING - GOVERNMENT SOURCES

Exporting Financing

Export-Import Bank. *The Export-Import Bank (Exim bank)*
Private Export Funding Companies.
Export-Credit Subsidies
Export-Credit Insurance

INTRODUCTION - GLOBALIZATION OF FINANCIAL MARKETS

The *Globalization of financial markets* has brought about an unprecedented degree of competition among key financial centre and financial institutions that has further reduced the costs of issuing new securities. Deregulation has tended by the process of *regulatory arbitrage*, whereby the uses of capital market issue and trade securities in financial center with the lowest regulatory standard and, hence, the lowest costs. In order to win back business, financial center around the world are throwing off obsolete and costly regulations. Whether international funds flows take place through financial intermediation or securitisation depends on the relative costs and risks of the two mechanisms. The key determinant here is the cost of gathering information on foreign firms. As these costs continuity to come down, international securitisation should become increasingly more cost-effective.

INTERNATIONAL FINANCIAL MARKETS

International financial Markets can develop anywhere, provided that local regulations permit the market and that the potential users are attracted to it. On the other hand some countries that have relatively unimportant domestic financial markets are important world financial centers. Political stability and minimal government intervention are perquisites for becoming and remaining an important international financial center, especially an entrepot center its assess to information by dint of its position astride huge international capital flows, its pool of financial talent, its well-developed legal system, and its telecommunication links.

Foreign Access to Domestic Markets

Despite the increasing liberalization of financial markets, governments are usually unwilling to rely completely on the market to perform the functions of gathering and allocating funds. Foreigners particularly are often hampered in their ability to gain access to domestic capital market because of government-imposed or government-suggested restrictions relating to the maturities and amounts of money that they can raise. They are hampered as well by the government-legislated extra costs. The capital that can be raised is frequently limited to local news through the imposition of exchange controls. As we have seen previously, however multinationals are potentially capable of transferring funds, even in the presence of currency controls, by using a variety of financial channel to the extent, therefore, that local credits substitute for parent-or affiliate- supplied financing, the additional monies are available for removal.

The Foreign Bond Market.

The *foreign Bond Market* is an important part of the international financial market. It is simply that portion of the domestic bond market that represent issues floated by foreign companies or governments. As such, foreign bonds are subject to local laws and must be denominated in the local currency. At times, these issues face additional restriction as well.

The Foreign Bank Market. The *foreign bank market* represents that portion of domestic bank loans supplied to foreigners for use abroad. As in the case of foreign bond issues, government often restrict the amounts of bank funds destined for foreign purposes.

The Foreign equity Market. The idea placing stock has long attracted corporate finance mangers. One attraction of the *foreign equity market* is the diversification of funding risk: A pool of funds from a diversified shareholder base insulates a company from the vagaries of a single national market. Selling stock overseas also increase the potential demand for the company's shares and hence its price, by attracting new shareholders. In addition, for a firm that wants to project an international presence, an international stock offering can spread the firm's name local markets. Most major stock exchanges permit sales of foreign issues provided the issue satisfies all the listing requirements of the local market. Some of the major stock market list large numbers of foreign stocks. For example, Union Carbide, black & decker, caterpillar, and general motors are among the more than 200 foreign stocks listed on the German stock exchanges. Similarly, over 500 foreign stocks including ITT, Hoover and wool worth- are listed on the British exchanges. More companies are also seeking to be listed on the Tokyo exchange.

The Eurocurrency Market

A *Eurocurrency* is a dollar or other freely convertible currency deposited in a bank outside its country or origin. The *Eurocurrency market* then consists of those banks—called *Eurobanks*- that except the deposit and make loans in foreign currencies. The Eurobond and Eurocurrency are often confused with each other but there is a fundamental distinction between the two. In the Eurobond market, Eurobond, which are bonds sold outside the countries in whose currencies they are dominated, are issued directly by the final borrowers; whereas the Eurocurrency market enable investors to hold short-terms claims on commercial banks, which then act as intermediaries to transform these deposit into long-term claim on final borrowers. However, banks do play an important in placing these bonds with the final investors.

Eurocurrency Loans.

The most important characteristic of the Eurocurrency market is that loans are made on a floating-rate basis. Interest rates on loan to governments and their agencies, Companies, and nonprime banks are set at a fixed margin above LIBOR for the given period and currency chosen. At the end of each, the interest for the next period is calculated at the same fixed margin over the new LIBOR. The *margin*, or spread between the lending bank's cost of funds and the interest charged the borrower, varies a good deal among borrowers and is based on the borrowers' perceived riskiness.

Multi-currency Clauses.

Borrowing can be done in many different currencies, although the dollar is still the dominant currency. Increasingly, Eurodollars have a multi-currency clause. This clause give the borrower the right (subject to availability) to switch from one currency to another on any

rollover date. The Multi-currency option enables the borrower to match currencies on cash inflows and outflows.

Euro-market Trends.

Euro market Trends are largely reflects the fact that because many international bank loans soured in the early 1980's bank lost much of their appeal to investor. As a result, banks' ability to impose themselves as the credit yardstick by which all other international borrowers are measured as faltered drastically. What the Euro market is saying in effect is that borrowers such as Denmark are considered better credit risk than are most banks.

Eurobonds

Eurobonds are similar in many respects to the public debt sold in domestic capital markets unlike domestic bond markets, however, the Eurobond market is almost entirely free of official regulation, but instead a self- regulated by the association of international bonds dealers. The prefix Euro indicates that the bonds are sold outside the countries in whose currencies they are dominated.

Eurobond Secondary Market.

Historically there has been a lack of debt in the Eurobond *secondary market* (the market where investor trade securities already bought). However, the growing number of institution caring larger portfolios of Eurobond for trading purposes has increased the debt and sophistication of this market, making it second only to the US. Domestic bond market in liquidity-where liquidity refer to the ease of trading securities at close to their quoted price.

Finance is the Life Blood of the Business and so the case of MNCs also. The only difference in finance of domestic companies and MNCs is that the finance in domestic companies is in domestic currency where as in case of the MNCs the finance is in multi currencies. But whatever be the conditions, with out finance, no company can exist. Finance is required for many purposes like purchase of raw material, purchase of machinery, purchases of the related items, payment of salaries, meeting the operational expenses, payment of royalties, payment of service charges, payment of interest, conversion of currencies, advance payment of part of the determined price, transportation charges, showing a guaranteed amount, payment of taxes, etc., so the finance is required for all these purposes. There are various ways and means to increase the finance in the MNCs or any domestic companies. The activities of providing finance to the MNCs is know as Financing MNCs. There are three types of Financing namely **Short – Term Financing , Financing Foreign Trade and Long-Term Financing.** These are discussed below.

SHORT-TERM FINANCING

According to Prof. Alan C. Shapiro, financing the working capital requirements of a multinational companies foreign affiliates poses a complex decision problem. This complexity stems from the large number of financing options available to the subsidiary of an MNC. Subsidiaries have access to funds from sister affiliates and the parent, as well as external sources. This chapter focuses on developing policies for borrowing from either within or without the Companies when the risk of exchange rate changes is present and different tax rates and regulations are in effect. There are four aspects of short-term overseas financing strategy namely

(1) Identifying the key factors,
(2) Formulating and evaluating objectives,
(3) Describing available short-term borrowing options and
(4) Developing a methodology for calculating and comparing the effective after-tax dollar costs of these alternatives,

Identifying Key Factors

There are six key factors in short- term financing the MNCs they are deviations of interest rates, exchange risk, degree of risk aversion, borrowing strategy and currency risk, tax asymmetries and political risk.

1. *Deviations in the rate of interest* are the first risk factor. If forward contracts are unavailable, the crucial issue is whether differences in nominal interest rates among currencies are matched by anticipated exchange rate changes. The key issue here is whether there are deviations from the international rate of interest. If deviations do exist, then expected dollar borrowing costs will vary by currency, leading to a decision problem. Trade—offs must then be made between the expected borrowing costs and the exchange risks associated with each financing option.
2. The *element of exchange risk* is the second key factor. Many firms borrow locally to provide an offsetting liability for their exposed local currency assets. On the other hand, borrowing a foreign currency in which the firm has no exposure will increase its exchange risk. What matters is the covariance between the operating and financing cash flows. That is the risk associated with borrowing in a specific currency is related to the firm's degree of exposure in that currency.

3. The Third essential element is the firm's *degree of risk aversion*. The more risk averse the firm (or its management) is, the higher the price it should be wiling to pay reduces its currency exposure. Risk aversion affects the company's risk-cost, trade-off and consequently, in the absence of forward contacts, influences the selection of currencies it will use to finance its foreign operations.

4. *Borrowing Strategy* and *currency risk* of the MNCs are the fourth risk factor. If forward contracts are available, however, currency risk should not be a factor in the firm's borrowing strategy. Instead, relative borrowing costs, calculated on a conversed basis, become the sole determinant of which currencies to borrow in. The key issue

here is whether the nominal interest differential equals the forward differential—that is, whether interest rate parity holds, then in the absence of tax considerations, the currency denomination of the firm's debt is irrelevant.

5. *Tax asymmetries* are the next risk factor. That is even if interest rate parity does hold before tax, the currency denomination of corporate borrowing does matter where tax asymmetries are present. These tax asymmetries are based on the differential treatment of foreign exchange gains and losses on either forward contracts or loan repayments.

6. The last risk is the *political risk*. Even if local financing is not the minimum cost option, multinationals will often still try to maximize their local borrowing if they believe that expropriation or exchange controls are serious possibilities. If either event occurs, an MNC has fewer assets at risk if it has used local, rather than external, financing.

OBJECTIVES

The following are the objectives of the short-term financing the MNCs.

1. *Minimize expected cost.* By ignoring this objective reduces information requirements, allows borrowing options to be evaluated on an individual basis without considering the correlation between loan cash flows and operating cash flows, and lends itself readily to break-even analysis.

2. *Minimize risk without regard to cost* .A firm that followed this advice to its logical conclusion would dispose of all its assets and invest the proceeds in government

securities. In other words, this objective is impractical and contrary to shareholder interests.

3. *Trade of expected cost and systematic risk.* The advantage of this objective is that, like the first objective, it allows a company to evaluate different loans without considering the relationship between loan cash flows and operating cash flows form operations. More over, it is consistent with shareholder preferences as described by the capital asset pricing model. In Practical terms, however, there is probably little difference between expected borrowing cost adjusted for systematic risk and expected borrowing costs without that adjustment. This lack of difference is because the correlation between currency fluctuations and a well –diversified portfolio of risky assets is likely to be quite small.

4. *Trade of expected cost and total risk.* Basically, it relies on the existing of potentially substantial costs of financial distress. On a more practical level management generally prefers greater stability of cash flows (regardless of investor preferences). Management will typical self-insure against most losses, but might decide to use the financial markets to hedge against the risk of large losses.

FINANCING OPTIONS

The following are the options available to finance the MNCs.

(1) The inter-company,
(2) The local currency loan, and
(3) Euro notes and Euro-commercial paper.

Inter-company Financing

This is the most common short term financing system among the MNCs. Here under this system, either the parent company or sister affiliate provide an *inter-company loan*. At times, however, these loans may be limited in amount or duration by official exchange, controls, etc. In addition, interest rates on inter-company loans are frequently required to fall within set limits. Normally, the lender's government will want the interest rate on an inter-company loan to be se as high as possible for both tax an balance-of-payments purposes, while the borrower's government will demand a low interest rate for similar reasons.

Local Currency Financing

This is another common system of financing the MNCs. Like the domestic firms, subsidiaries of multinational Companies generally attempt to finance their working capital requirements locally, for both convenience and exposure management purposes. Since all industrial nations have well-developed commercial banking systems, firms desiring local financing generally turn there first. The major forms of bank financing include overdrafts, discounting, and term loans. Non-bank sources of funds include commercial paper and factoring.

Bank Loans

Loans from commercial banks are the dominant form of short-term interest-bearing financing used around the world. These loans are described as *self-liquidating* because they are usually used to finance temporary increases in accounts receivable and inventory. These increases in working capital are soon converted into cash, which is used to repay the loan.

Short-term bank credits are typically unsecured. The borrower signs a note evidencing its obligation to repay the loan when it is due, along with accrued interest. Most notes are payable 90 days; the loan must, therefore, be repaid or renewed every 90 days. The need to periodically roll over bank loans gives substantial control over the use of its funds, credits are not being used for permanent financing, a bank will usually insert a *cleanup clause* requiring the company to be completely out of debt to the bank for a period of at least 30 days during the year.

Forms of Bank Credit

Banks credit provides a highly flexible form of financing because it is readily expandable and, therefore, serves as financial reserve. Whenever the firms needs extra short-term funds

that can't be met by trade credit, it is likely to turn first to bank credit. Unsecured bank loans may be extended under a line of credits, under a revolving-credit arrangement, or on a transaction basis, Bank loans can be originated either in the domestic or Eurodollar market.

1. *Term loans:* Terms loans are straight loans, often unsecured, that are made for a fixed period of time, usually 90 days. They are attractive because they give corporate treasurers complete control over the timing of repayments. A term loan is typically made for a specific purpose with specific conditions and is repaid in a single lump sum. The loan provisions are contained in the promissory note that is signed by the customer. This type of loan is used most often by the borrowers who have an infrequent need for bank credit.

2. *Line of Credit*: Arranging separate loans for frequent borrowers is a relatively expensive means of doing business. One way to reduce these transaction costs is to use a line of credit. This formal agreement permits the company to borrow up to a stated maximum amount from the bank. The firm can draw down its line of credit when it requires funds and pay back the loan balance when it has excess cash. Although the bank is not legally obligated to honour the line-of-credit agreement, it almost always does unless it or the firm encounters financial difficulties. A line of credit is usually good for one year, with renewals renegotiated every year.

3. *Overdrafts:* In countries other than the United States, banks tend to lend through overdrafts. An overdrafts is simply a line of credit against which drafts (checks) can be drawn (written) upto a specified maximum amount. These overdraft lines are often extended and expanded year after year, thus providing in effect, a form of medium-term financing. The borrower pays interests on the debit balance only.

4. *Revolving credit agreement.* A revolving credit agreement is similar to a line of credit except that now the bank (or syndicated of banks) is *legally committed* to extend credit up to

the stated maximum. The firm pays interest on its outstanding borrowings plus a commitment fee, ranging between 0.125% and 0.5% per annum, on the *unused* portion of the credit line. Revolving credit agreements are usually renegotiated every two or three years. The danger that short-term credits are being used to fund long-term requirements is particularly acute with a revolving credits line that is continuously renewed; Inserting an out-of-debt period under a cleanup clause validates the temporary need for funds.

5. *Discounting.* The discounting of trade bills is the preferred short-term financing technique in many European countries—especially in France, Italy, Belgium and to a lesser extent, Germany. It is also widespread in Latin America, particularly in Argentina, Brazil, and Mexico. These bills often can be rediscounted with the central bank. Discounting usually results from the following set of transactions. A manufacturer seller goods to a retailers on credit draws a bill on the buyer, payable in, say, 30 days. The buyer endorses (accepts) the bill or gets his or her bank to accept it, at which point it becomes a *banker's acceptance*. The manufacturer then takes the bill to his or her bank, and the bank accepts it for a fee if the buyer's bank has not already accepted it. The bill is then sold at a discount to the manufacturer's banks or to a money maker dealer. The rate of interest varies with the term of the bill and the general level of local money market interest rates. The popularity of discounting in European countries steams from the fact that according to European commercial law, which is based on the Code Napoleon, the claim of the bill holder is independent of the claim represented by the underlying transaction.

Interest Rates on Bank Loans

The interest rate on bank loans is based on personal negotiation between the banker and the borrower. The loan rate charged to a specific customer reflects that customer's creditworthiness, previous relationship with the bank, the maturity of the loan, and other factors. Ultimately, of course, bank interest rates are based on the same factors as the interest

rates on the financial securities issued by a borrower: the risk-free return, which reflects the time value of money, plus a risk premium based on the borrower's credit risk. However, there are certain bank loan pricing conventions that you should be familiar with. Interest on a loan can be paid at maturity or in advance. Each payment method gives a different effective interest rate, even if the quoted is the same.

Commercial Paper

One alternative to borrowing shot term from a bank is to issue commercial paper. *Commercial paper* (CP) is a short-term unsecured promissory note that is generally sold by large Companies on a discount basis to institutional investors and to other Companies. Because commercial paper is unsecured and bears only the name of the issuer, the largest and most creditworthy companies have generally dominated the market. Commercial paper is one of the most-favored short-term non-bank financing methods for MNCs. But CP markets are not all alike. Perhaps the most telling difference is the depth and popularity of CP markets, as best measured by the amount outstanding. The Untied States dwarfs all other national markets.

There are three major non-interest costs associated with using commercial paper as a source of short-term funds: (1) back-up lines of credit, (2) fees to commercial banks, and (3) rating services fees. In most cases, issuers back their paper 100% with lines of credit from commercial banks. Because its average maturity is very short, commercial paper poses the risk that an issuer might not be able to pay off roll over maturing paper. Consequently, issuers use back-up lines as insurance against periods of financial stress or tight money, when lenders ration money directly rather than raise interest rates.

> Back-up lines are usually paid for though compensating balances, typically about 10% of the unused portion of the credit line plus 20% of the amount of credit actually used. As an alternative to compensating balances, issuers sometimes pay straight fees ranging from 0.375% to 0.75% of the line of credit; this explicit pricing procedure has been used increasingly in recent years.

Another cost associated with issuing commercial paper is fees paid to the large commercial banks that acts as issuing and paying agents for the paper issuers and handle all

the associated paper work. Finally rating services charge fees ranging from $5,000 to $25,000 per year for rating, depending on the rating service. Credit ratings are not legally required by any nation, but they are often essential for placing paper.

Euro notes and Euro-Commercial Paper

A recent innovation in non-bank short-term credits that bears a strong resemblance to commercial paper is the so-called Euro note. *Euro notes* are short-term notes usually denominated in dollars and issued by Companies and governments. The prefix "Euro" indicates that the notes are issued outside the country in whose currency they are denominated. The interest rates are adjusted each time the notes are rolled over. Euro notes are often called *Euro-commercial paper* (Euro-CP, for short). Typically, though, the same Euro-CP is reserved for those Euro notes that are not underwritten.

There are some differences between the U.S. commercial paper and the Euro-CP markets. For one thing, the average maturity of Euro-CP is about twice as long as the average maturity of U.S. CP. Also, Euro-CP is actively traded in a secondary market, but most U.S. CP is held to maturity by the original investors. Central banks, commercial banks, and Companies are important parts of the investor base for particular segments of the Euro-CP market; the most important holders of U.S. CP are money market funds, which are not very important in the Euro-CP market. In addition, the distribution of U.S. issuers in the Euro-CP market is of significantly lower quality that the distribution of U.S. issuers in the U.S.-CP market. An explanation of this finding may lie in the importance of banks as buyers of less-than-prime paper in the Euro-CP market.

CALCULATING THE ALTERNATIVE FINANCING OPTIONS

Alternative Financing Options gives the formulas to compute the effective dollar costs of a local currency loan and a dollar loan for both the no-tax and tax cases. These cost formulas can be used to calculate the least expensive financing source for each future exchange rate. This can be calculated through *break-even analysis* and determine the range of future exchange rates within which each particular financing option is cheapest. The Logic of this break-even analysis can be extended to financing alternatives. In all situations, the cost of each source of funds must be calculated in terms of the relevant parameters and the expense compared with that of all other possibilities.

FINANCING FOREIGN TRADE

Foreign Trade is the main business of the traders of ever country. Almost all the MNCs are heavily involved of foreign trade in addition to their other international activities. So they require finance for all activities related to the trade, working capital, and other services namely letter of credit and acceptances. Hence, the people who are responsible for the management of the MNCs must have the practical knowledge of the institutions and documentary procedures to facilitate the international movement of goods.

PAYMENT TERMS IN INTERNATIONAL TRADE

International Trade or Foreign Trade means the trade between the traders of the two countries with two different types of currencies. A strong constructive belief between them is absolutely essential in order to make the international trade successful. Finance is essential and needed in every step and every shipment., The exporter needs financing to buy or manufacture its goods. Similarly, the importer has to carry these goods in inventory until the goods are sold. Then, it must finance its customer's receivables. A financially strong exporter can finance the entire trade cycle out of its own funds by extending credit until the importer has converted these goods into cash. Alternatively, the importer can finance the entire cycle by paying cash in advance. According to Prof. Allen C Shapiro, by taking all factors the following five basic means of payments are in practice.

- Cash in advance
- Letter of credit
- Draft
- Consignment
- Open account

Cash in Advance

Cash in advance affords the exporter the greater protection because payment is received either before shipment or upon arrival of the goods. This method also allows the exporter to

avoid typing up its own funds. Although less common than in the past, cash payment upon presentation of documents is still widespread. Cash terms are used where there is a political crises or exchange controls in the importing country or where the buyer's credit is doubtful. Political crises or exchange controls in the purchaser's country may cause payment delays or even prevent fund transfers, leading to a demand for cash in advance. In addition, where goods are made to order, prepayment is usually demanded, both to finance production and to reduce marketing risks.

Letter of Credit

Importers will often face problem in paying cash in advance and will demand credit terms instead. When credit is extended, the *letter of Credit* (L/C) offers the exporter the greatest degree of safety. If the importers is not well known to the exporter or if exchange restrictions exist or are possible in the importer's country, the exporter selling on credit may to have the importers promise of payment backed by a foreign or domestic bank. On the other hand, the importer may not wish to pay the exporter until it is reasonably certain that the merchandise has been shipped in good condition. A letter of credit satisfies both of these conditions.

In essence, the letter of credit is a letter addressed to the seller, written and signed by a bank acting on behalf of the buyer. In the letter, the bank promises it will honour drafts drawn on itself if the seller conforms to the specific conditions set forth in the L/C. Though an L/C the bank substitutes its own commitment to pay for that of its customers (the importer). The letter of credit, therefore, becomes a financial contract between the issuing bank and a designated beneficiary that is separate from the commercial transaction.

Most L/C issued in connection with commercial transactions are *documentary*—that is the seller must submit, together with the draft, any necessary invoices and the like. The letter of credit can be revocable or irrevocable.

A *revocable L/C* is a means of arranging payment, but it does not carry a guarantee. It can be revoked, without notice, at anytime upto the time a draft is presented to the issuing bank. An *irrevocable L/C*, on the other hand, cannot be revoked without the specific

permission of all parties concerned, including the exporter. Most credits between unrelated parties are irrevocable.

A letter of credit can also be confirmed or unconfirmed. A *confirmed L/C* is an L/C issued by one bank an confirmed by another, obligating both banks to honor any drafts drawn in compliance. An *unconfirmed L/C* is the obligation of only the issuing bank. Thus the three main types of L/C in order of safety for the exporter, are (1) the irrevocable, Confirmed L/C; (2) the irrevocable, unconfirmed L/C; and (3) the revocable L/C.

A *transferable L/C* is one under which the beneficiary has the right to instruct the paying bank to make the credit available to one or more secondary beneficiaries No. L/C is transferable unless specifically authorized in the credit; moreover, it can be transferred only once. The stipulated documents are transferred along with the L/C.

The Draft

Commonly used in international trade, a *draft* is an unconditional order in writing—usually signed by the exporter (seller) and addressed to the importer (buyer) or the importer's agent—ordering the importer to pay on demand, or at a fixed or determinable future date, the amount specified on its face. Such as instrument, also known as a *bill of exchange,* serves three important functions:

- To provide written evidence, in clear and simple terms, of financial obligation.
- To enable both parties to potentially reduce their costs of financing.
- To provide a negotiable and unconditional instrument (that is, payment must be made to any holder in due course despite any disputes over the underlying commercial transaction.)

Using a draft also enables an exporter to employ its bank as a collection agent. The bank forwards the draft or bill of exchange to the foreign buyer (either directly or through a branch

or correspondent bank), collects on the drafts, and then remits the proceeds to the exporters. The bank has all the necessary documents for control of the merchandise and turns them over to the importer only when the draft has been paid or accepted in accordance with the exporter's instructions. The conditions for a draft to be negotiable are that it must be:

- In writing
- Signed by the issuer (drawer)
- An unconditional order to pay
- A certain sum of money
- Payable on demand or at a definite future time
- Payable to order of bearer

There are usually three parties to draft. The party who signs and sends the draft to the second party is called the *drawer;* payment is made to the third party, the *payee*. Normally, the drawer and payee are the same person. The party to whom the draft is addressed is the *drawee*, who may be either the buyer or if a letter of credit was used, the buyer's bank. In case of confirmed L/C, the drawee would be the confirming bank.

Drafts may be either sight or time drafts. *Sights drafts* must be paid on presentation or else dishonored. *Time drafts* are payable at some specified future date and as such become a useful financing device. The maturity of a time draft is known as its *usance or tenor*. A s mentioned earlier to qualify as a negotiable instrument, the date of payment must be determinable.

A time draft becomes an *acceptance* after being accepted by the drawee. Accepting a draft means writing *accepted* across its face, followed by an authorized person's signature and the date. The party accepting a draft incurs the obligation to pay it at maturity. A draft accepted by a bank become a *banker's acceptance;* one drawn on and accepted by a commercial

enterprise is termed a *trade acceptance*. The exporter can hold the acceptance or sell it at discount from face value to its bank, to some other bank, or to an acceptance dealer.

Draft can be clean or documentary. A *clean draft*, one unaccompanied by any other papers, is normally used only for non-trade remittances .Its primary purpose is to put pressure on a recalcitrant debtor that must pay or accept the draft or else face damage to its credit reputation. Most drafts used in international trade are documentary. A *documentary draft*, which can be either sight or time, is accompanied by documents that are to be delivered to the drawee on payment or acceptance of the draft. Typically these documents include the bill of lading in negotiable form, the commercial invoice, the consular invoice where required, and an insurance certificate.

There are two significant aspects to shipment goods under documentary time drafts for acceptance. First, the exporter is extending credit to the importer for the usance of the draft. Second, the exporter is relinquishing control of the goods in returns for a signature on the acceptance to assure it of payment.

It is important to bear in mind that sight drafts are not always paid at presentation, nor are time drafts always paid at maturity. Firms can get bank statistics on the promptness of sight and time draft payments, by country, from bank publications such as Chase Manhattan's *Collection Experience* bulletin. Unless a bank has accepted a draft, the exporter must ultimately look to the importer for payment. Thus, use of a sight or accepted time draft is warranted only when the exporter has faith in the importer's financial strength and integrity.

Consignment

Goods sent on consignment are only shipped to importer, but they are not sold. The exporter (consignor) retains to the goods until the importer (consignee) has sold them to a third party. This arrangement is normally made only with a related company because of the large risks involved. There is little evidence of the buyer's obligation to pay, and should the buyer default, it will prove difficult to collect. The seller must carefully consider the credit risks involved and also the availability of foreign exchange in the importer's country. Imports converted by documentary drafts receive priority over imports shipped on consignment.

Open Account

Open account selling is shipping goods first and billing the importer later. The credit terms are arranged between the buyer and seller, but the seller has little evidence of the importer's obligation to pay a certain amount at a certain date. Sales on open account, therefore, are made only to a foreign affiliate or to a customer with which the exporter has a long history of favorable business dealings. However, open accounts sales have greatly expanded due to the major increase in international trade, the improvement in credit information about importers, and the greater familiarly with exporting in general. The benefits include greater flexibility (no specific payment dates are set) and involve lower costs, including fewer bank charges than with other methods of payment. As with shipping on consignment, the possibility of currency controls is an important factor because of the low priority in allocating foreign exchange normally accorded this type of transaction.

Banks and Trade Financing

> Historically, banks have been involved in only a single step in international trade transactions such as providing a loan or a letter of credit. But as financing has become an integral part of many trade transactions, U.S, banks—especially major money center banks—have evolved as well. They have gone from financing individual trade deals to providing comprehensive solutions to trade needs. This includes combining bank lending with subsidized funds from government export agencies, international leasing, and other non-bank financing sources, along with political and economic risk insurance.

DOCUMENTS IN INTERNATIONAL TRADE

The important documents required in commercial bank financing of exports are Bill of Lading, Commercial Invoice, Consular invoice and Insurance Certificate. They are briefly discussed.

Bill of Lading

Of the shipping documents, the *bill of lading* (B/L) is the most important. It serves three main and separate functions:

1. It is a contract between the carrier and shipper (exporter) in which the former agrees to carry the goods from port of shipment to port of destination.

2. It is the shipper's receipt for the goods.

3. The negotiable B/L, its most common form, is a document that establishes control over the goods.

A bill of lading can be of two types namely a straight B/L, an order B/L. An *on-board* B/L, a *received-for-shipment* B/L, A Clean B/Land a *foul B/L*.

A *straight B/L* consigns the goods to a specific party, normally the importer, and is not negotiable, because title cannot be transferred to a third party merely by endorsement and delivery. Whereas under an *order B/L*, the goods are consigned to the order of a named party, usually the exporter. The exporter representative may endorse to a specific party or endorse it in blank by simply signing his or her name. The shipper delivers the cargo in the port of destination to the bearer of the endorsed order B/L. who must surrender it.

An *on-board* B/L certifies that the goods have actually been placed on board the vessel. By contrast, a *received-for-shipment* B/L merely acknowledges that the carrier has received the goods for shipment. It does not state that the ship is in port or that space is available. The cargo can, therefore, sit on the dock for weeks, or even months, before it is shipped. A received-for-shipment B/L can easily be converted into an on-board B/L by stamping it "on-board" and supplying the name of the vessel, the date, and the signature of the captain or the captain's representative.

A Clean B/L indicates that the goods were received in apparently good condition. However, the carrier is not obligated to check beyond the external visual appearance of the boxes. If boxes are damaged or in poor condition, this observation is noted on the B/L, which then becomes a *foul B/L*. It is important that the exporter get a clean B/L—that is, one with no such notation—because foul B/Ls are generally not acceptable under a letter of credit.

Commercial Invoice

A Commercial Invoice contains an authoritative description of the merchandise shipped, including full details on quality, grades, price per unit and total value. It also contains the names and address of the exporter and importer, the number of packages, any distinguishing external marks, the payment terms, other expenses such as transportation and insurance charges, any fees collectible from the importer, the name of the vessel, the ports of departure and destination, and any required export or import numbers.

Insurance

All charges going abroad are insured. Most of the insurance contracts used today are under an *open,* or *floating,* policy. This policy automatically covers all shipments made by the exporter, thereby eliminating the necessity of arranging individual insurance for each shipment. To evidence insurance for a shipment under an open policy, the exporter makes out an *insurance certificate* on forms supplied by the insurance company. This certificate contains information on the goods shipped. All entries must conform exactly with the information on the B/L, on the commercial invoice and, where required, on the consular invoice.

Consular Invoice

Exports to many countries require a special *consular invoice*. This invoice, which varies in its details and information requirements from nation to nation, is presented to the local consul in exchange for a visa. The form must be filled out very carefully, for even trivial inaccuracies can lead to substantial fines and delays in customs clearance. The consular invoice does not convey any title to the goods being shipped and is not negotiable.

FINANCING TECHNIQUES

There are number of techniques in financing international trade. They are straight bank financing, banker's acceptances, discounting, factoring and forfeiting.

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Straight Bank Financing

Under this system of financing, the bankers are lending finance to the traders who are engaged in the export trade and import trade in the normal procedure subject to the rules and regulations of the banking companies.

Bankers' Acceptances

This is another form of technique in financing the traders or MNCs. Bankers' acceptances have played an important role in financing international trade for many countries. As we saw in the previous section, a bankers' acceptance is at time draft drawn on a bank. By "accepting" the draft, the bank makes an unconditional promise to pay the holder of the draft a stated amount on a specified day. Thus, the bank effectively substitutes its own credit for that of a borrower, and in the process, its creates a negotiable instrument that may be freely traded.

Discounting

Discounting method of financing is also one of the techniques of financing the MNCs. Even if a bank does not accept a trade draft, the exporter can still convert the trade draft into cash by means of *discounting*. The exporter places the draft with a bank or other financial institutions and in turn, receives the face value of the draft less interest and commission. By insuring the draft against both commercial and political risks, the exporter will often pay a lower interest rate. The discount rate for trade paper is often lower than the interest rates on overdrafts, bank loans, and other forms of local funding. This lower rate is usually a result of export promotion policies that lead to direct or indirect subsidies of rates on export paper.

Factoring

Firms with a substantial export business and companies too small to afford a foreign credit and collections department can turn to a *factor*. Factors buy a company's receivables at a

discount, thereby accelerating their conversion into cash. An exporter MNC that has established an ongoing relationship with a factor will submit new orders directly to the factor. After evaluating the creditworthiness of the new claim, the factor will make a recourse/ non-recourse decision within two days to two weeks depending on the availability of information.

> In general, factoring is most useful for (1) the occasional exporter and (2) the exporter having a geographically diverse portfolio of accounts receivable. In both the cases, it would be organizationally difficult and expensive to internalize the accounts receivable collection process. Such companies would generally be small or else be involved on a limited scale in foreign markets.

Forfaiting

The specialized factoring technique known a forfaiting is sometimes used in the case of extreme credit risk. *Forfaiting* is the discounting—at a fixed rate without recourse —of medium-term export receivables denominated in fully convertible currencies (U.S. dollar, Swiss franc, Deutsche mark). This technique is usually used in the case of capital-goods exports with a five-year maturity and repayment in semiannual installments. Forfaiting is specially popular in Western Europe (primarily in Switzerland and Austria) and many forfaiting houses are subsidiaries of major international banks, such as Credit Suisse (Allen C Shapiro) These houses also provide help with administrative and collection problems.

LONG TERM FINANCING - GOVERNMENT SOURCES

The following are the long term financing particularly for the capital equipments and other big items given to the MNCs who are actively engaged in the Foreign Trade.

1. Export Financing
2. Export Credit Subsidies and
3. Export Credit Insurance

Items requiring long repayment arrangements, most government of developed countries have attempted to provide their domestic exporters with competitive edge in the form low-cost

export financing and concessionary rates on political and economic risk insurance. Nearly every development nation has its own export-import agency for development and trade financing.

Exporting Financing

Procedures for extending credit vary greatly among agencies. Many agencies offer funds in advance of the actual export contract, whereas private sources extend financing only after the sale has been made. Some programs extend credit only to the suppler—called *supplier credits*—to pass on to the importer, other grant credit directly to the buyer—called *buyer credits*—who then pays the supplier. The difference is that in the first arrangement, the supplier bears credit risk, whereas in the latter case, the government is the risk bearer, Of course, the government often provides credit insurance in conjunction with the supplier credits.

Export-Import Bank.

The Export-Import Bank (Exim bank) is the only U.S government agency dedicated solely to financing and facilitating U.S exports Exim bank loans provide competitive, fixed-rate financing for U.S export sales facing foreign competition backed with subsidized official financing.

Exim bank operations generally conform to five basic principles:

1. Loans are made for the specific purpose of financing U.S exports of goods and services. If a U.S. export item contains foreign-made component, Exim bank will cover upto 100% of U.S content of exports provided that the total amount financed or guaranteed does not exceed 85% of the total contract price of the item and that the total U.S content account for atleast half of the contract price.

2. Exim bank will not provide financing unless private capital is unavailable in the amounts required. It supplements, rather than competes with private capital.

3. Loans must have reasonable assurance of repayment and must be for project that have a favorable impact on the country's economic and social well-being. The host government must be aware of, and not object to, the project.

4. Fees and premiums charged for guarantee and insurance are based on the risks covered.

5. In authorizing loans and other financial assistance, Exim bank is obliged to take into account any adverse effects on the U.S economy or balance of payments that might occur.

The interest rates on Exim bank 's loans are based on an international arrangement among the 22 member of the Organisation for Economic Cooperation and Development (OECD). The OECD minimum rates are based on the weighted average interest rate on government bond issues denominated in the U.S dollar, German mark, British Pond, French franc, and Japanese yen. In this way, rate on exports credits are brought closer to market interest rates .

Exim bank guarantees provide repayment protection for private sector loans to creditworthiness buyers of exported U.S goods and services. The guarantees are available alone or may be combined with an intermediary loan. Most guarantees provide comprehensive coverage of both political and commercial risks. Exim bank will also guarantee payment of cross-border or international leases.

Repayment terms vary with the project and type of equipment purchased. For capital goods long-term credits are normally provided for a period of 5 year to 10 years. Loan for projects and large products acquisitions are eligible for longer terms, while lower-unit value items receive shorter terms. Loan amortization is made in semi-annual installments, beginning six months after delivery of the exported equipment.

Private Export Funding Companies

The *Private Export Funding Companies* (PEFCO) was created in 1970 by the *Bankers Association for foreign Trade* to mobilize private capital for financing the export of big-ticket items by U.S. firms. It purchases the medium to long-term debt obligations of importers of U.S

products at fixed interest rates. PEFCO finances its portfolio of foreign importer loans through the sales of its own securities. Exim bank fully guarantees repayment of all PEFCO foreign obligations. There are several trends in public-source export financing. These trends include:

1. *A shift from supplier to buyer credits:* Many capital goods exports that cannot be financed under the traditional medium-term supplier credits become feasible under buyer credits, where the payment period can be stretched upto 20 years.

2. *A growing emphasis on acting as catalysis to attract private capital:* This action includes participating with private sources, either as a member of a financial consortium or as a partner with an individual private investor, in supplying export credits.

3. *Public agencies as a source of refinancing:* Public financing are becoming an important source for refinancing loans made by bankers and private financers. Refinancing enable a private creditor to discount its export loans with government.

4. *Attempts to limit competition among agencies:* The virtual export-credit war among the governments has led to several attempts to agree upon and coordinate financing terms. These attempts, however, have been honored more in the breach than in the observance.

Export-Credit Subsidies

The benefit of Exim bank do not come free of charge. Though much of the 1980's the Exim bank has observed losses of more than $250 million a year, In fiscal 1987, it posted a record loss of $387 million. The bank borrowers through the U.S. Treasury, which means that the credit terms it receives are first rate. However, lending below the market to help U.S. Company's export ensures a persistent deflects. Although the Exim bank claims that cut-rate loans are necessary to allow U.S. firms to complete with foreign exporters, the truth is that the Exim bank loans subsidize less than 3% of American merchandise exports. Another arguments used by Exim bank officials is that their activities are justified because foreign governments subsidize exports. The increase in demand would boost the dollars value. Dollar appreciation would, of course encourage further imports and discourage unsubsidized exports. Since savings and investment are unaffected by these subsidies, the trade deflect unlikely to respond to export subsidies.

Export-Credit Insurance

Export financing covered by government credit insurance, also know as *export-credit insurance,* provides protection against losses from political and/or commercial risks. It serves as collateral for the credit and is often indispensable in making the sales. The insurance does not usually provide an ironclad guarantee against all risks, however. Having this insurance results in lowering the cost of borrowing from private institutions because the government is

bearing those risks and losses are covered. The purpose of export-credit insurance is to encourage a nation's export sales by protecting domestic exporters against nonpayment by importers. The existence of medium and long-term credit insurance policies makes banks more willing to provide non-recourse financing of big-ticket items that require lengthy repayment maturities, provided the goods in question have been delivered and accepted..