



STUDY NOTE - 9

SOURCES OF INTERNATIONAL FINANCE

SECTION - 1

RISING FUNDS IN FOREIGN MARKETS AND INVESTMENTS IN FOREIGN PROJECTS

This Study Note includes

- **Rising funds in foreign markets and investments in foreign projects**

1.1 RISING FUNDS IN FOREIGN MARKETS AND INVESTMENTS IN FOREIGN PROJECTS

- 1.1.1 Foreign or international capital market offers a good opportunity for domestic firms to raise finances. These markets include the US, UK, Japan etc. Since 1991, after government of India introduced financial liberalization policies, a number of Indian companies took advantage of this opening up in international capital markets. The global investors, who are seeking portfolio diversification, see investment in Indian stocks or bonds as a profitable avenue on the basis of risk adjusted return.
- 1.1.2 The main advantage of sourcing from international capital markets is the lower cost of funds, besides enriched brand image. For example, Tata motors, borrowed recently at 0% interest from international capital market.
- 1.1.3 There are different instruments through which an Indian firm can raise money from these global markets. The most popular one is the Global Depository Receipt (GDR), which is an equity instrument. It is like investing in Indian equity. These Indian papers are marketed in international capital markets to attract global investors. They hold these papers which are listed in the international stock exchanges like the New York stock exchange, NASDAQ exchange, the Luxemburg exchange etc. Hence, these instruments are very liquid and tradable across international exchanges. Similarly, there are American depository receipts (ADRs) which are mainly traded in the American exchanges. The GDRs can also be traded in the Indian exchanges.
- 1.1.4 The other popular instrument is the Euro bonds. These are debt instruments, which carry a rate of interest (coupon). Many Indian companies raised funds from the Japanese market at 1 to 2% rate of interest.
- 1.1.5 There are innovations in the way Euro bonds can be structured to suit the requirements of the investors. Euro Convertible Bonds [ECBs] are hybrid instruments. Initially a debt



instrument bearing a coupon with a convertibility clause which entitles the owner to convert these debt instruments into equity instruments. This convertibility options makes these instruments very popular in a booming capital market context. For example, if a company's share is likely to do very well in the next three years, its current share price being Rs.400 which is expected to go up to Rs.800, it may issue an ECB at 1% rate of interest with an option to the investor for converting these bonds into equity shares at say Rs.500 after three years.

- 1.1.6 Many of these instruments can be used to raise finances in US dollars, Euro (the earlier French francs, German mark, Italian lira, etc.).
- 1.1.7 More importantly, the process of going global or raising money in international capital markets is a useful learning experience in global reporting standards and international bench marking. The typical process involves appointment of an investment banker, who prepares a detailed document for the road shows to be organized across the world, marketing the issue to the well informed international investors. The reporting of financial results should confirm to international accounting standards. It helps in corporate valuation and helped Indian companies discover their true value. There has to be proper documentation regarding the proposed use of funds and financial projections. The funds have to be used only for the purposes for which they were raised. RBI has come out with very strict circulars and guidelines on this aspect.
- 1.1.8 There will be a book building process where different investors bid for these Indian papers. The entire book building process helps in better price discovery. This process is now practiced even for domestic IPOs and SPOs.
- 1.1.9 There are also international stock exchanges which prescribe very strict listing requirements. The listing discipline has helped Indian companies to improve their standards of financial reporting and disclosure.
- 1.1.10 Investment bankers, stock exchanges, regulatory authorities like the RBI, SEBI and SEC, foreign institutional investors, high net worth individuals are some of the parties involved in international capital money markets.
- 1.1.11 If the funds are raised in foreign currencies, the companies are exposed to exchange rate risk and interest rate risk. There is also the possibility of realizing a lower value due to the superior bargaining power of the international investors.
- 1.1.12 Many of the Indian companies raised money from international capital markets and used this money to prepay domestic debts, which created problems for the Indian banks which have lent money to these companies. The government has come up with end use monitoring provisions to manage these risks, besides putting an overall cap on the amount of money that can be raised from the international capital markets by way of GDRs, ECBs etc.

Factors influencing the development of accounting in a particular country:

- Economic environment;



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- Legal environment;
 - Political environment;
 - Capital markets;
 - Cultural environment;
 - Educational environment;
 - Ethical environment;
 - Social environment; and
 - Others;

All are interlinked.



SECTION - 2

FORWARD RATE AGREEMENT AND INTEREST RATE GUARANTEES

This Study Note includes

- Basics of foreign exchange
- Forward rate agreement and interest rate guarantees
- Advantages and disadvantages of using forward contracts
- Interest rate guarantees

2.1 BASICS OF FOREIGN EXCHANGE

2.1.1 The foreign exchange market is the organizational framework within which individuals, companies, banks and brokers buy and sell foreign currencies. It has two levels; the inter-bank or wholesale market and the client or retail market. It is not a physical place but an electronic network of banks, foreign exchange brokers and dealers. It is a 24-hour market.

2.1.2 Spot rate:

In the spot market, currencies are bought or sold for immediate delivery, which in practice means settlement in two working days. The exchange rate at which the currencies are bought and sold for immediate delivery are called spot exchange rates or spot rates.

2.1.3 Forward exchange rates:

A forward exchange contract is an agreement to deliver a specified amount of one currency for a specified amount of another currency at some future date. For example, if you know that you will be receiving USD 500000 in six month's time, you can get a quote for a forward exchange rate in six months between USD/INR and book a six month forward contract at this rate so that you will know how much you will get exactly without any uncertainty. Through forward rates, risks due to foreign exchange rate fluctuations can be managed.

2.2 FORWARD RATE AGREEMENT AND INTEREST RATE GUARANTEES

2.2.1 Forward rate agreement [FRAs] is a contract agreeing to buy or sell foreign exchange at a predetermined rate of exchange. They are also known as derivative contracts and instruments for hedging or managing exchange rate risk caused by the volatility in foreign exchange rates. So, an importer wants to freeze the exchange rates at the current level in anticipation of his requirements of foreign exchange at a future date. Similarly, an exporter would like to be certain about the amount that he will receive by fixing the conversion rate of exchange right now. The recent fluctuations in the rupee dollar exchange rate has wiped out the profits of many small textile mills in Tiruppur, in



Tamilnadu. Similarly, there was a substantial reduction in the profit of Infosys and other major software exporters in 2007 due to exchange rate volatility. A forward rate agreement to some extent saved the companies in these situations. The importer or the exporter enters into a FRA with the banks or foreign exchange dealers.

2.3 ADVANTAGES AND DISADVANTAGES OF USING FORWARD CONTRACTS

- 2.3.1 By entering into a forward foreign exchange contract, an Indian importer or exporter can:
- Fix at the time of the contract a price for the purchase or sale of a fixed amount of foreign currency at a specified future time
 - Eliminate its exchange risk due to foreign exchange rate fluctuations during the period of contract
 - Calculate the exact INR value of an international commercial contract despite the fact that payment is to be made in the future in a foreign currency
 - Sometimes the spot rate at the time of receipt or payment of foreign exchange may be favorable to the importer or exporter. The benefits of such favorable spot rates may be foregone due to forward rate agreements entered into earlier.

2.4 INTEREST RATE GUARANTEES

- 2.4.1 Your firm will have \$1,000,000 in 3 months' time, for a 6-month period. Nobody is sure what interest rates will prevail in the future. Some analyst's think rates will increase, others feel they will fall. You want to protect your firm against the risk of a reduced return on your funds. You can use the Forward-Rate Agreements to protect yourself, but you know that if you use Forward-Rate Agreements now you will give up the possibility of benefiting from higher interest rates. In these circumstances, interest-rate guarantee products can be very useful. An Interest-Rate Guarantee is a product, which can be very useful in these circumstances. Basically, it is an option on a Forward-Rate Agreement. It allows you a period of time during which you have the right to buy a Forward-Rate Agreement at a set price. The guarantee protects you against a fall in interest rates while giving you the freedom to enjoy a better return if rates increase. If you want this guarantee you will need to pay a higher premium.

- 2.4.2 Illustration:

Suppose you will have a deposit of \$1,000,000 for a 6-month period beginning in 3 months' time. You want to protect your firm against lower interest rates and guarantee a minimum return of 5%. You can buy an Interest-Rate Guarantee at this rate of 5%. Let us see how the option would work.

Two examples:

- In 3 months' time the 6-month Libor sets at 4.5% you use your Interest-Rate Guarantee and will receive a compensation for the 0.5% difference in interest rates so that your 5% return is protected.



- In 3 months' time the 6-month Libor sets at 5.5%. You choose not to use your guarantee and instead you will deposit your funds at the higher rate. In these circumstances the Interest-Rate Guarantee protected you against lower interest rates and also allowed you to take advantage of the rise in interest rates.

The benefits:

- The guarantee will give you full protection against falling interest rates.
- The guarantee will give you freedom to benefit if rates increase.
- If you decide that you do not need the guarantee, you can sell it back

Features:

- You can get an Interest-Rate Guarantee whenever you need one customized to your requirement.
- Interest rate guarantees are available for all major currencies and different maturities
- One can get Interest-Rate Guarantees from a bank other than the one who holds the cash. Interest-Rate Guarantee can be used for any cash held or expected to have.

The price of your Interest-Rate Guarantee will depend on:

- the guaranteed rate;
- how long you want the Option for; and
- How often interest rates are changing.



SECTION - 3

EXPOSURES IN INTERNATIONAL FINANCE

This Study Note includes

- **Exposures in international finance**
- **Transaction exposure**
- **Translation exposure**
- **Economic exposure**
- **Forecasting foreign exchange rates**
- **Interest rate parity**
- **Purchase power parity**
- **Fisher effect**

3.1 EXPOSURES IN INTERNATIONAL FINANCE

3.1.1 Irrespective of the nature of overseas activities, organizations need to understand and where appropriate, control the degree of foreign exchange variability to which they are exposed. To do this, each organization must develop an organizational framework which generates answers to the following key questions:

1. What is the exact nature of our foreign exchange exposure?
2. How can this be identified and measured?
3. Given identification and measurement of exposure, how can the degree of risk be measured?
4. What is our organization's attitude to this risk?
5. How should we organize for foreign exchange exposure: centralize or decentralize?
6. What techniques should we use to hedge our exposure?
7. Accounting of international transactions in line with Indian and International GAPP accounting guidelines & stipulations.

3.2 TRANSACTION EXPOSURE

3.2.1 The risk that there will be a change in value for the organization caused by variation in relevant exchange rates is known as the foreign exchange risk. Transaction exposure arises from changes in cash flows that result from a firm's existing contractual obligations e.g. an Indian company makes a sale, denominated in euros to an Italian company. Until the Italian company pays for the sale, there is a risk that fluctuations in the INR/EUR exchange rate will affect final amount that the Indian company receives. Other



types of transaction exposures are loans denominated in overseas currencies, purchases from overseas companies and dividends from overseas subsidiaries.

3.3 TRANSLATION EXPOSURE

- 3.3.1 This is also known as accounting exposure. This arises from the need to translate the foreign currency financial statements of overseas subsidiaries into the home currency in order to prepare a set of group financial statements in the home currency. An example would be an Indian company with a US subsidiary. In order to prepare the full accounts for the Indian company, the accounts of the US subsidiary will need to be translated into INR. Every time the accounts are translated, a uniform INR/USD exchange rate will be used, usually year end or an average for the accounting period. Due to this translation, the reported values may be different, though there are no cash flow implications. The company has to strictly follow the Accounting Standards prescribed in this regard. Students are advised to have knowledge on all the latest Accounting Standards.

3.4 ECONOMIC EXPOSURE

- 3.4.1 It is also called operating or strategic exposure. It measures the change in the present value of the firm resulting from any change in the future operating cash flows of the firm caused by an unexpected change in exchange rates. The change in value depends on the effect of the exchange rate change on future sales volume, prices or costs.
- 3.4.2 Economic exposure can be thought of as encompassing transaction exposure, but generally takes a long term perspective, in that it looks at the whole operation of a company and how cost and price competitiveness could be affected by movements in exchange rates. For example, a company manufacturing Luxury cars in India for sale to US will be exposed to transaction risk on all sales to the US denominated in USD when rupee strengthens. However, the Indian company will also be economically exposed. Over time, the Indian company will be exposed to shifts in the INR/USD exchange rate. If the competitors of the Indian based manufacturer are all based in US, any increase of the INR/USD exchange rate will increase sales prices in US, which may mean loss of market share to local US Luxury car manufacturers.

3.5 FORECASTING FOREIGN EXCHANGE RATES

- 3.5.1 There are generally two overall approaches to forecasting exchange rates: Fundamental approaches and technical approaches. One of the fundamental approaches is known as the four way equivalence model or parity conditions. There are four relationships that underpin international exchange rates: purchase power parity theory, fisher effect, interest rate parity and expectations theory.

3.6 INTEREST RATE PARITY

- 3.6.1 The theory of interest rate parity states that the difference in the notional interest rates for securities of similar risk and maturity should be equal to the difference between



forward and spot rates of exchange. i.e the forward premium or discount is equal to the interest rate differential. If the forward premium or discount is not equal to the interest differential, there are opportunities for risk free arbitrage. This parity condition means that a country with a lower interest rate than another should value its forward currency at a premium in terms of the other country's currency.

3.6.2 Example:

If the annual interest rate in UK is 13% and that in USA it is 10% and the current spot rate between the two countries is USD 1.50=GBP 1, assuming interest rate parity theory, what is the forward rate of exchange in one year ahead?

GBP 100 in one year, at an annual rate of 13%=GBP 113

USD 150 in one year, at an annual rate of 10%=USD 165

Forward rate in one year= $165 / 113 = 1.46$ USD= 1 GBP

3.7 PURCHASE POWER PARITY

- 3.7.1 This is based on the common sense idea that a product should cost the same wherever it is available in the world, otherwise opportunities for arbitrage will arise; that is people will try and buy the product in the cheaper market and sell it in the more expensive market to make a profit. Translated into a more general parity theory, this means that the general level of prices, when converted to a common currency, will be the same in each country, price changes due to inflation in one country are compensated by a change in exchange rate so that the real cost of products remain the same. If the inflation rate in UK is 8% and that in USA is 5% and the spot rate is USD 1.5=1 GBP, we would expect the GBP to deteriorate against the USD by, on average, 3% a year. So in a year's time you might expect the exchange rate to have fallen to USD 1.455/GBP 1

3.8 FISHER EFFECT

- 3.8.1 The Fisher effect states that the nominal interest rate is made up of two components: a required real rate of return and an inflation premium, equal to the expected rate of inflation. Thus,
- $$1 + \text{Nominal rate} = (1 + \text{real rate})(1 + \text{Expected inflation rate})$$
- The fisher effect relies on the activities of the arbitrageurs, who will move capital from countries with low rates of return to countries with high rates of return. If real rates of interest are thought to be the same worldwide, the difference in nominal interest rates between countries should be due to differences in inflation rates.
- The fisher effect and purchasing power parity theory together make up the international fisher effect, which holds that interest rate differentials between countries should be reflected in the expectation of the future spot rate of exchange. Purchase power parity theory states that a rise in the home country's inflation rate will also be accompanied by a devaluation of the home country's currency.



SECTION - 4

FOREIGN DIRECT INVESTMENT

This Study Note includes

- **Foreign Direct Investment:**
- **Definition of Foreign Direct Investment**
- **Classification of Foreign Direct Investment**

4.1 FOREIGN DIRECT INVESTMENT

- 4.1.1 FDI (Foreign Direct Investment)** has become a key component of national development strategies for almost all the countries over the Globe. FDI is considered to be an essential tool for jump-starting economic growth through bolstering of domestic capital, productivity and employment. Reliance on **FDI** is rising heavily due to its all round contributions to the economy. The important effect of FDI is its contributions to the growth of the economy. FDI has an impact on country's trade balance, Increasing labour standards and skills, transfers of new technology and innovative ideas, Improving infrastructure, skills and the general business climate.
- 4.1.2 FDI** is considered to be the lifeblood for economic development as far as the developing nations are concerned. FDI to developing countries in the 1990s was the leading source of external financing. The rise in FDI volume was accompanied by a marked change in its composition. That is investment taking the form of acquisition of existing assets (mergers and acquisitions) grew much more rapidly than investment in new assets particularly in countries undertaking extensive privatization of public enterprises

4.2 DEFINITION OF FOREIGN DIRECT INVESTMENT

- 4.2.1** Foreign direct investment is that investment, which is made to serve the business interests of the investor in a company, which is in a different nation distinct from the investor's country of origin.
- 4.2.2** A parent business enterprise and its foreign affiliate are the two sides of the FDI relationship. Together they comprise an MNC. The parent enterprise through its foreign direct investment effort seeks to exercise substantial control over the foreign affiliate company. 'Control' as defined by the UN, is ownership of greater than or equal to 10% of ordinary shares or access to voting rights in an incorporated firm. For an unincorporated firm one needs to consider an equivalent criterion. Ownership share amounting to less than that stated above is termed as portfolio investment and is not categorized as FDI.

4.3 CLASSIFICATION OF FOREIGN DIRECT INVESTMENT

- 4.3.1** Foreign direct investment may be classified as Inward or Outward.



- 4.3.2 Foreign direct investment, which is inward, is a typical form of what is termed as ‘inward investment’. Here, investment of foreign capital occurs in local resources.
- 4.3.3 The factors propelling the growth of Inward FDI comprises tax breaks, relaxation of existent regulations, loans at low rates of interest and specific grants. The idea behind this is that, the long run gains from such a funding far outweighs the disadvantage of the income loss incurred in the short run. Flow of Inward FDI may face restrictions from factors like restraint on ownership and disparity in the performance standard.
- 4.3.4 Foreign direct investment, which is outward, is also referred to as “direct investment abroad”. In this case it is the local capital, which is being invested in some foreign resource. Outward FDI may also find use in the import and export dealings with a foreign country. Outward FDI flourishes under government backed insurance at risk coverage.

4.3.5 Illustration

‘G’ company Ltd, is a company that manufactures a specialized computer game in India and sells it within the euro zone in France and Germany. Its major competitor in these markets is a Japanese supplier of the same game. All sales are invoiced in the local currency, and the selling price is set at the beginning of the year. It usually takes three months between the sale of a game and the receipt of the currency proceeds. 80% of sales to France and Germany can be predicted in terms of amount and date. There is a 15% of net profit margin on the games.

‘G’ company has recently set up a subsidiary in Russia that will buy the games from ‘G’ company and sell them on within Russia. All transactions will be in INR. The Russian rouble has been subject to sudden devaluations against the INR.

The management team of ‘G’ company has come to you for advice. It has heard about currency transaction, translation and economic exposure and would like to know if these are an issue for the company.

Required:

- 1) Locate examples of the three types of foreign exchange exposure in the scenario and advise suitably.
- 2) Suggest which hedging techniques might be available for ‘G’ Company and the questions that you would ask the management team in order to establish which techniques would be most appropriate.

**4.3.6 Solution:**

1	Transaction exposure	On sales to Germany and France as in euro; Sales price set at beginning of the year and time delay between sale and receipt
	Translation exposure	May be with the Russian subsidiary if any transactions are in roubles, although we are told that they are in INR
	Economic exposure	Japanese competitor; if yen weakens against the INR, its products will be cheaper relative to 'G' company. Russian subsidiary sales will be susceptible to strong INR as may make the product too expensive for the local market
2	Possible hedging techniques	Do nothing. Cover forward for specific contracts as 80% certain Use options for the balance
	Questions to ask	What is management team's approach to risk? If risk averse, will want to use forward to lock in