International Finance

Block

3

EXCHANGE RISK MANAGEMENT

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International Project Appraisal **71-104**

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Block 3: Exchange Risk Management

This block introduces the concept of exchange risk that arises out of foreign exchange transactions. It lists and illustrates various foreign exchange exposures while carrying out cross border transactions. Besides, it lists the types of exposures a firm carries and details the different ways of managing exposures. Further, this block covers the various reasons for foreign direct investment and its appraisal.

Unit 9 defines what an exposure is and differentiates it with risk. This unit introduces three different types of exposures namely transaction exposure, translation exposure and operating exposure.

Unit 10 focuses on managing transaction and translation exposures through internal hedging techniques such as exposure netting, leading and lagging, and hedging using various instruments. The management of economic exposure is discussed in detail by using various strategies.

Unit 11 enumerates the reasons for FDI and discusses at length the viability of projects using Adjusted Present Value criteria.

Unit 9

Introduction to Exchange Risk

Structure

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"If you don't take risk, you will always work for someone, who does"

- Nora Denzel, Lead Independent Director, AMD

9.1 Introduction

People who have achieved success in business had taken the risk and those who did not, worked for them. Risk is part of business, whether domestic or international.

In the previous unit, we discussed the different models of exchange rate determination. In the present unit, it was discussed that corporates, whether operating internationally or domestically, are exposed to risks of adverse movements in their profits resulting from unexpected movements in exchange rates. Foreign exchange exposure results in foreign exchange risk due to the unanticipated variability in exchange rates. Variability of exchange rates amounts to foreign exchange exposure and foreign exchange risk. Though these two terms are frequently applied inter-changeably yet represent two different concepts though closely related. Let us discuss exchange risk and various types of exchange risks.

9.2 Objectives

After studying this unit, you should be able to:

- Discuss the nature and characteristics of foreign exchange exposures
- Describe the underlying statute of fixed foreign currency values

- Explain the measurement of forex exposure to resultant changes in domestic currency value
- Discuss the difficulties in assessing the forex exposure to operating incomes of the firm
- List out various types of forex exposures
- State the dependent factors that influence the measure of price elasticity of demand

9.3 Foreign Exchange Exposure

Adler and Dumas define foreign exchange exposure as 'the sensitivity of changes in the real domestic currency value of assets and liabilities or operating incomes to unanticipated changes in exchange rates'.

To understand the concept of foreign exchange exposure, we shall analyze the aforesaid definition in detail. The foremost point is that both the domestic and foreign assets and liabilities could be exposed to effects of exchange rate movements. For example, if an Indian resident holds a dollar deposit then if the dollar's value vis-à-vis the rupee changes, automatically the value of the deposit in terms of rupee also changes. This makes the dollar deposit exposed to changes in exchange rates. On the other hand, if a person is holding a debenture in an Indian company, the value of the debenture may change due to an increase in general interest rates, which in turn may be the effect of a depreciating rupee. Thus, even though no conversion from one currency to another is involved, a domestic asset can be exposed to movements in the exchange rates, albeit indirectly.

The second point is that not only the assets and liabilities, but even operating incomes can be exposed to exchange rate volatility. A simple example would be of a firm exporting its products. Any change in the exchange rates is likely to lead a change in the firm's revenue in domestic currency value.

The third point is that the exposure measures the sensitivity of changes in real domestic-currency value of assets, liabilities and operating incomes. This means, it is the inflation adjusted values expressed in relevant domestic currency terms. Though this is theoretically a sound way of looking at exposure, yet practically it is difficult to measure and incorporate the inflation in the calculations. Thus, the nominal figures are taken into account, though it always does not depict the real picture.

The fourth and last point is that exposure measures the responses only for the unexpected changes in the exchange rate because the expected changes are already discounted by the market.

What does this definition mean? In simple terms, it means that exposure is the amount of assets, liabilities and operating income that is at risk from unexpected

changes in exchange rates (we discuss later how this differs from foreign exchange risk). The definition by Adler and Dumas helps us in measuring the exposure. As we know, sensitivity can be measured by the slope of the regression equation between two variables. Here, the two variables are the unexpected changes in the exchange rates and, the resultant changes in the domestic-currency value of assets, liabilities and operating incomes. The second variable can be divided into four categories for the measurement of exposure.

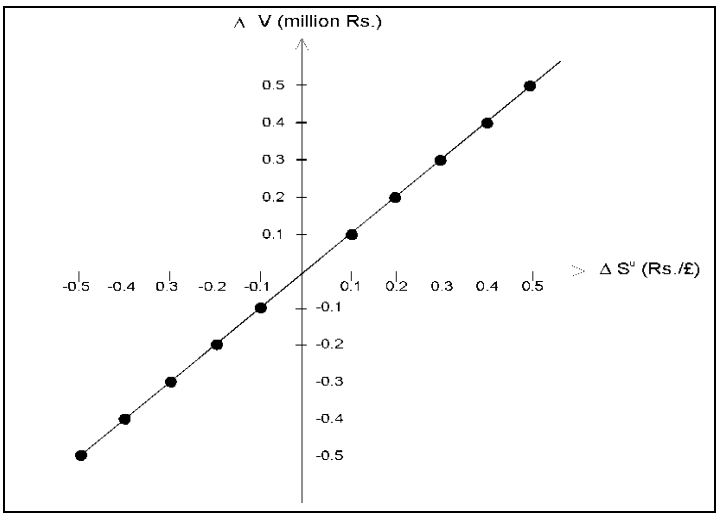
These are:

- Foreign currency assets and liabilities having fixed foreign-currency values.
- Foreign currency assets and liabilities with foreign-currency values that varies with an unexpected change in the exchange rate.
- Domestic currency assets and liabilities.
- Operating incomes.

9.3.1 Exposure when Assets &Liabilities have Fixed Foreign Currency Values

The measurement of exposure for the first category is comparatively simpler than for the remaining three. Let us see an example to analyze the process of measurement. Assume that an Indian resident is holding a £1 million deposit. The change in the rupee-value of the deposit due to unexpected changes in the ₹/£ rate have been plotted in Figure 9.1.

Figure 9.1: Change in Rupee-Value

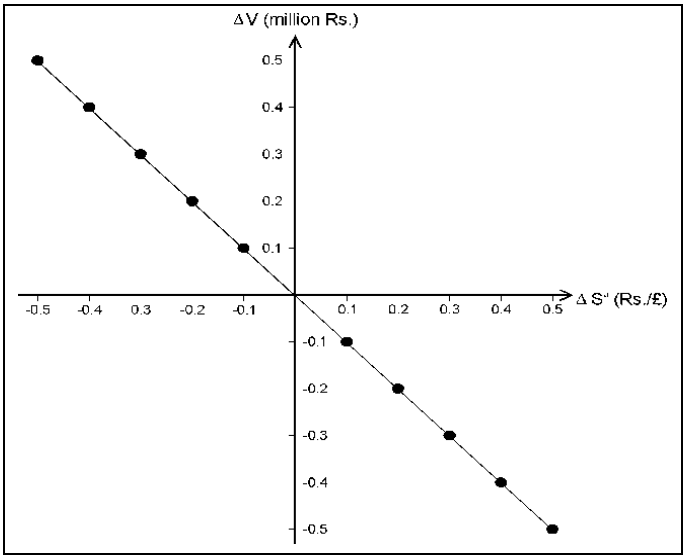


Source: ICFAI Research Center

In this graph, the unexpected changes in the exchange rate [ΔS^u(₹/£)] are represented on the X-axis, with a positive value denoting an appreciation in the foreign currency. The Y-axis represents the change in the Rupee-value of the deposit (V). As the Pound appreciates by ₹ 0.10, the value of the deposit also

increases by ₹ 0.1 million. With an unexpected appreciation of ₹ 0.20 in the Pound's value, the deposit's value increases by ₹ 0.2 million. Similarly, an unexpected depreciation of the pound by ₹ 0.10 will reduce the value of the deposit by ₹ 0.1 million, while a depreciation of ₹ 0.2 will reduce the deposit's value by ₹ 0.2 million. This gives us an upward sloping exposure line. On the other hand, if there were a foreign liability which had its value fixed in terms of the foreign currency, it would give a downward sloping exposure line. There may be a few assets or liabilities where the combinations of the two variables may not lie exactly on a straight line. In such a case, the exposure line would be the line of best fit. (See Figure 9.2).

Figure 9.2 Line of Best Fit



Source: ICFAI Research Center

Whether the points fall exactly on the exposure line or not, there is one common thing among the assets and liabilities as discussed above. The common factor is that the quantum of change in the foreign-currency value of these assets and liabilities is predictable to a high degree. This predictability of the change in value makes it more convenient to draw a regression line and hence, to measure exposure.

As was mentioned earlier, exposure can be measured as the slope of the regression equation between unexpected changes in the exchange rate and the resultant changes in the domestic value of assets and liabilities. We can express the regression equation as:

$$\Delta V = a \times \Delta S^u + e$$

Where,

ΔV = Change in the domestic value of assets and liabilities

a = Slope of the regression line

ΔS^u = Unexpected change in the exchange rate

e = Random error, the presence of which allows for small variations in the value of V from those given by the regression line.

The exposure is given by 'a' in the above equation. For graph 1, the exposure can be measured in the following way. As all the points fall exactly on the exposure line, the value of the random error 'e' is equal to zero. Hence, the regression equation stands reduced to

$$\Delta V = a \times \Delta S^u$$

$$\Rightarrow a = \frac{\Delta V}{\Delta S^u}$$

$$= \frac{-₹\ 1{,}00{,}000}{₹\ 0.10 / £}$$

$$= -£\ 1{,}000{,}000.$$

Even when the exposure line is a downward sloping line (as will be in case of a liability), the exposure can again be measured in the same way as outlined above. Assuming the same figures as used in the above example, an unexpected appreciation of the Pound by ₹ 0.10/£ will result in an increase in the liability by ₹ 1,00,000, thus making V equal to (–) 1,00,000. Thus, the exposure will be:

$$a = \frac{\Delta V}{\Delta S^u}$$

$$= \frac{-₹\ 1{,}00{,}000}{₹\ 0.10 / £}$$

$$= -£\ 1{,}000{,}000.$$

A few points need to be noted from the above calculation:

- When the foreign currency value of an asset or liability does not vary with a variance in the exchange rate, then the foreign exchange exposure is equal to the foreign currency value.
- When the slope of the exposure line is negative, the exposure appears with a negative sign. Here, an exposure with a positive sign is referred to as a long exposure, and the one with a negative sign as a short exposure.
- The unit of measurement of exposure is the foreign currency in which the asset or liability is expressed. This is so because while computing the exposure, domestic currency gets canceled in the numerator and denominator, leaving foreign currency as the unit. In the above example, the rupee in the numerator gets canceled with that in the denominator, leaving the pound as a unit of exposure.
- While computing the exposure in the aforesaid way, we are assuming that all the changes in the exchange rates are unexpected. An unexpected change can be computed, using the forward rate. As we know, the forward rate can be applied as the unbiased estimate of the future spot rate. Hence, in

retrospective, the forward rate for a maturity can be compared to the actual spot rate prevalent as on the date of the maturity. The difference between the two shall be unexpected change in the exchange rate.

9.3.2 The Effect of Exchange Rate Fluctuations on Assets and Liabilities Denominated in Foreign Exchange

A change in the exchange rate may be accompanied by a change in the foreign-currency value of an asset or liability. Though the change in the foreign currency value may not be directly attributable to the movement in the exchange rate, the link between the two is certainly there due to the common underlying factors. For example, inflation in a country denoting a general increase in price levels would result in the value of any asset like real estate going up. At the same time, it would also result in a depreciation of the currency. Though the change in the asset's value is not directly a result of the change in the exchange rate, it may be possible to establish a relationship between the two. In such a case, the degree of exposure would depend on the response of the exchange rate and of the asset's (or liability's) value to the change in the underlying variable. Sometimes, the exchange rate movement does affect the foreign-currency value of the foreign asset or liability, albeit in an indirect way. For example, if there is a depreciation of the foreign currency, the foreign central bank may consider it imperative to increase the interest rates in the economy in order to defend its currency. In such a case, the asset value in the form of an interest-bearing security would stand reduced. Also, the degree of exposure depends upon the movement of the two variables and the predictability of the movement in the value of asset or liability. Depending upon these movements, the exposure may be lower than or higher than or equal to the foreign-currency value of the asset or liability.

Let us see a few examples.

Suppose, there is a foreign asset whose value is USD 2,500,000 with the exchange rate ruling at ₹ 82.50/USD. At this point, its domestic-currency value equals ₹ 206.25million. The US economy is facing an inflation rate of 4%, due to which the asset's price increases to USD 2,600,000. At the same time, the dollar depreciates to ₹ 79.3275 /USD. The new value of the asset is again ₹ 206.2515 million. If with every change in the exchange rate, the asset's value changes in the same way, the two will be having a predictable relationship. In that situation, the exposure can again be calculated as the slope of the regression equation between these two variables. In the example given above, the exposure will be equal to-

$$a = \frac{\Delta V}{\Delta S^u} = \frac{₹\ 0}{-₹\ 3.1725/\$}$$

$$= \quad 0$$

Here, we can observe that though the exchange rate is variable, the exposure is nil. This is because in response to the exchange rate movements, the foreign-currency value of the asset is changing in such a way as to leave the domestic-currency value of the asset unchanged. Without any movement in the domestic-currency value of the asset, the exposure on the asset becomes zero.

Though a zero exposure may be an ideal condition, it would be quite difficult to find such assets and liabilities. Generally, the foreign-currency values of assets and liabilities move in the manner outlined above, but not to the same extent. Even if prices of the assets change as above, such change may not occur simultaneously having an exposure. Say, in the aforesaid example, the value of the asset may increase only to USD 2,550,000 in response to the depreciation of the dollar. This would result in a rupee value of ₹ 202.285125. Again, if this value changes in a similar predictable manner every time there is a dollar appreciation or depreciation, the exposure would be equal to

$$a = \frac{\Delta V}{\Delta S^u}$$

$$= \frac{-₹\ 3964875}{-₹\ 3.1725 / \$}$$

$$= \text{USD } 1249763$$

It can be observed that the exposure is less than the value of the asset (i.e. USD 2.5 million). If, on the other hand, the value of the asset had become USD 2.7 million, the exposure would have been:

$$a = \frac{\Delta V}{\Delta S^u}$$

$$= \frac{₹\ (2.7x79.3275 - 206.25) = (214.18425 - 206.25)}{-₹\ 3.1725 / \$}$$

$$= -\text{USD } 2500946.$$

This makes the exposure almost equal to the value of the asset. If the value of the asset had instead moved to USD 2.75 million, the exposure would have been higher than the value of the asset, i.e.- USD 3751182. From these examples, we can understand that the exposure on an asset or liability whose foreign-currency value changes with a change in the exchange rate, could be nil, less than, or more than, or equal to, the value of the asset/liability.

In all the examples considered above, the foreign-currency value of the asset was changing in such a way, as to make the relationship between the movement in the domestic-currency value of the asset and a change in the exchange rate a predictable one. In many situations, it may be very difficult to establish a regression

line. In such cases, though the asset or liability may be exposed to exchange rate movements, the measurement of exposure may become impossible.

Exposure on Domestic Assets and Liabilities

Domestic assets and liabilities are not directly exposed to exchange rate movements because no conversion from a foreign currency to the domestic currency is involved. However, as explained in the beginning of the unit, even these assets and liabilities may be indirectly affected by interest rates. In the case of these assets and liabilities, the possibility of measurement of exposure and the degree of exposure would again depend on the predictability of the change in the domestic prices. The computation of exposure would also be done in the similar way as done for the foreign assets and liabilities whose value change with a change in the exchange rate. However, it should to be mentioned that the exercise in this case is more difficult than in the previous one.

Activity 9.1

Accel firm's assets book value stood at ₹ 64 crore as on June 2022. The firm used to depreciate the assets on year-on-year basis applying SLM (Straight-Line Method), say at 10% and as the inflation rate increases, the rupee value depreciates, and the dollar exchange rate appreciates strategically. How will this affect the firm's book value of assets exposure to volatility in the exchange rates?

Answer:

Operating Incomes

Measurement of exposure on operating profits is the most difficult among all. Let us analyze the case of an export-oriented company. A depreciation of the foreign currency may or may not result in a lower price quoted by the company in the international market. It depends upon the number of factors like the number of suppliers in the international market, their cost competitiveness, any product differentiation enjoyed by the company, price elasticity of the international demand for the product, number of consumers, and even the attractiveness of the international market vis-à-vis the domestic market. Then again, the company's changing or not changing the price may or may not have an impact on the quantity demanded. The new price and the new quantity demanded would together determine the company's operating profit. The presence of so many variables, with the change in the majority being unpredictable, makes it extremely difficult, to predict the effect of a change in the exchange rate on the operating profits of an export firm.

Let us now analyze the case of a company using imported raw materials, whether it is selling its products in the domestic market or the international market. Let us say there is an appreciation of the foreign currency. Firstly, whether the domestic price of the imported raw material will increase or not will depend upon the seller's response. The international price may or may not get reduced, depending upon the conditions existing in the international market. Even if we assume that the international price is not reduced and thus, the domestic currency price of the raw material increases, then the effect on the operating profits is not easily predictable. Though the quantity of raw material that the company wants to purchase at the increased price (and hence the raw material costs) would appear to be in its own hands, in reality it is dependent upon several factors. These include the availability and the price of the same or substitute raw materials in the domestic market, the possible response of the consumers in case the company tries to pass on the increased costs to them (which would in turn, depend upon the domestic or international market conditions) etc. All this amounts to the measurement of the exposure extremely difficult.

Even the companies that do not operate in the international markets, either as importers or exporters, may be exposed to changes in exchange rate. This may be due to the presence of, or the possibility of existing competitors. One way is, exchange rate volatility may affect such players by affecting the production costs and/or prices of their competitor. This amounts to a change in the operating profits of the domestic firm either by changing the quantity demanded by its consumers, or by forcing it to change the price at which it sells its products, or both. Another way is, change in the exchange rate may affect the domestic companies by making its foreign competitor's operations less, or more profitable, thereby acting as an inducement for more competitors to enter the market or driving it out of the market.

Again, as we can observe the measurement of exposure of operating profits is nearly impossible.

9.4 Foreign Exchange Risk

Maurice D Levi, author of the book International Finance describes foreign exchange risk as "the variance of the domestic-currency value of an asset, liability, or operating income that is attributable to unanticipated changes in exchange rates."

According to this definition, foreign-exchange risk results when the value of assets, liabilities or operating incomes in domestic currency, becomes variable in response to unexpected changes in exchange rates. Hence, for exchange rate risk to be present, the presence of two factors is essential. One is the variability of exchange rates, and the second is exposure. If an asset, liability or operating income is not exposed to exchange rate changes, variability of exchange rate does not create any exchange rate risk. Similarly, volatility of domestic-currency value of an

asset, liability or operating income which is not related to the exchange rate movements, or where the changes in exchange rates are perfectly predictable, does not create any exchange rate risk.

Where the exposure is determined in terms of the slope of a regression equation between exchange rate movements and changes in the values of assets or liabilities, then the exchange rate risk can be expressed as a function of exposure and variance of exchange rate. We recall that the regression equation can be written as

$$\Delta V = a \times \Delta S^u$$

This equation can be rewritten as:

$$\text{var}(\Delta V) = \text{var}\ [a \text{ x } \Delta S^u\ ]$$

or,

$$\text{var}(\Delta V) = a^2 \text{ x var}\left(\Delta S^u\right)$$ [1]

Where,

$$\text{var}(\Delta V) = \text{Exchange rate risk}$$

This is in conformity to our statement that exchange rate risk is dependent on both exposure and unexpected changes in exchange rates.

Example: Exchange Rate Risk

Royal Enterprises, a whole sale dealer in foreign liquor in Hyderabad, India enters into a contract with Sierra Nevada Brewing Co., to buy 500 cases of liquor at $ 100 per case, or $ 50,000 with payment due at the time of delivery.

Sierra Nevada Brewing Co., agrees to this contract at a time when the $ and the ₹ are of one $ = ₹ 77.87 on 10th of June 2022

Thus, the Royal enterprises expects that when they accept delivery of the liquor, they will be obligated to pay the agreed upon amount of $ 50,000 which in ₹ = 38,93,500

When the consignment was received on 20th of July 2022 the value of the ₹ depreciated and was at ₹ 80 / $. The contracted price that was still $ 50,000 which amounts to ₹.40,00,000

Thus Royal enterprise has to pay an extra amount of ₹ 1.06,500 which is the exchange rate risk to be faced by Royal Enterprises. The company can mitigate this risk by taking forward contract.

Exchange risk is the risk which pertains to the variance of the domestic-currency value of an asset, liability, or operating income due to unanticipated changes in exchange rates.

Source: ICFAI Research Center

[1] Note that var is a square term, hence when you take 'a' out of the bracket, you get a^2

Check Your Progress – 1

1. Variability of exchange rates gives rise to foreign exchange exposure and foreign exchange risks. Which of the following is not an element of foreign exchange exposure?
   a. Both foreign and domestic assets and liabilities are exposed to effect of exchange rate movements
   b. Operating income of a firm is not exposed to exchange rate movements
   c. Exposure measures the sensitivity of changes in real domestic-currency value of assets and liabilities
   d. Measure the response only to unexpected changes in exchange rate
   e. Measurement to unexpected response is already discounted by market
2. What does the variable "a" refer to in the regression equation that is used to measure the exchange risk?
   a. Slope of the regression line
   b. Change in the domestic value of assets and liabilities
   c. Unexpected change in the exchange rate
   d. Random error
   e. Downward slope of the regression line
3. Which of the following statement is contradictory to the change in exchange rate affecting the foreign currency value of a company or a firm or a corporate?
   a. The exposure of the foreign currency value of an asset or liability with the change in exchange rate would be nil
   b. The exposure of the foreign currency value of an asset or liability with the change in exchange rate would be equal
   c. The exposure of the foreign currency value of an asset or liability with the change in exchange rate would be infinite
   d. The exposure of the foreign currency value of an asset or liability with the change in exchange rate would be less than the value asset or liability
   e. The exposure of the foreign currency value of an asset or liability with the change in exchange rate would be more than the value asset or liability
4. Why the hedging activity is used by multi-national firms or corporates?
   a. Increase the variability of expected cash flows
   b. Decrease the variability of expected cash flows
   c. Increase the spread between spot and forward markets

d. Increase the spread between spot and future markets
e. Decrease the variability of tax paid

5. How the exchange rate risk is expressed as a function in regression equation?
   a. Exposure
   b. Exchange rate
   c. Value of assets or liabilities of a firm
   d. Operating profits of the firm
   e. Volatility in exchange rates

9.5 Types of Exposure

Exposure can be classified into three kinds based on the nature of item that is exposed, measurability of the exposure and the timing of estimation of exposure. These are:

- Transaction exposure
- Translation exposure
- Operating exposure

9.5.1 Transaction Exposure

Transaction exposure means an exposure that arises from foreign currency denominated transactions which an entity is committed to complete. It arises from contractual, foreign currency, and future cash flows.

For example, if a firm has entered into a contract to sell computers to a foreign customer at a fixed price denominated in a foreign currency, then the firm would be exposed to exchange rate movements till it receives the payment and converts the receipts into the domestic currency. The exposure of a company in a currency is determined in net terms, i.e. after netting off potential cash inflows with outflows.

9.5.2 Translation Exposure

Translation exposure means an exposure that arises from the need to convert the assets and liabilities value denominated in a foreign currency, into the domestic currency. For example, a company having a foreign currency deposit would need to translate its value into its domestic currency for the purpose of reporting at the time of preparation of its financial statements. Any exposure arising out of exchange rate movement and the resultant change in the domestic-currency value of the deposit will be considered as a translation exposure. It should be considered that this exposure is mostly notional, as there is no real gain or loss due to exchange rate movements. It is so because, the asset or liability does not stand liquidated at the time of reporting. Hence, it is also known as an accounting

exposure. This makes the measurement of translation exposure dependent upon the accounting policies followed for the purpose of translating the foreign-currency values of assets and liabilities into the domestic currency.

At the time of initial transaction, an asset or liability is recorded at a rate as per the company policy. At a later date, when the need to translate the value of an asset or liability arises, it may be translated either at the historical rate (the rate used at the time of the initial transaction) or at some other rate, which would again depend either on the company policy, or on accounting standards, or on both. We know that for an asset to be considered as exposed, there needs to be a change in its domestic currency value in response to a change in the exchange rate. Hence, those assets whose values are translated at a historical exchange rate do not result in translation exposure. Only the assets whose values are translated at the current (or post-event) exchange rate contribute to translation exposure. Again, like transaction exposure, translation exposure is measured as the difference between the exposed assets and exposed liabilities.

Example: Translation Exposure

An Indian subsidiary of an American company purchases a building worth ₹5 crore, on January 1, 2021.

On that date, the ₹ $ exchange rate was $ = ₹73.00. So, the value of the building converted into dollars was $6,84,932.

The company decides to convert all of its foreign holdings into dollars, to present a consolidated balance sheet, as on March 31, 2021. On that day, the exchange rate changed to $1 = ₹73.21, so the value of the building fell to $6,82,967.

Thus the translation exposure risk was $1965

Translation exposure is an exposure that arises from the need to convert the assets and liabilities values, denominated in a foreign currency, into the domestic currency and the example pertains to an Indian subsidiary of an American company.

9.5.3 Operating Exposure

Operating exposure is defined by Alan Shapiro, an exchange expert as “the extent to which the value of a firm stands exposed to exchange rate movements, the firm’s value being measured by the present value of its expected cash flows”. It is the result of economic consequences (rather than accounting consequences, as in the case of transaction and translation exposure) of exchange rate movements on the value of a firm. Hence, it is also referred to as economic exposure. In an earlier section, we had discussed the exposure faced by an export firm on account of changes in exchange rates. That is one example of economic exposure.

As we saw in the preceding sections, transaction and translation exposure cover the risk of the current profits of the firm being affected by a movement in exchange rates. On the other hand, operating exposure explains the changing of future cash flows risk of a firm due to a change in the exchange rate.

The exposure arising out of contractually fixed cash flows can be managed by applying the various techniques. But where the exposure arises out of cash flows that are not fixed contractually, or, where the change in the domestic-currency value as a result of exchange rate movements that cannot be predicted exactly, these techniques become ineffective. Due to this difficulty in managing such exposure with the traditional techniques, it is also known as the residual exposure.

The future cash flows of a firm are dependent not only on the exchange rate movements, but also on the relative rates of inflation prevailing in different countries. The interplay of these two forces determine the future cash flows and their variability, and hence, the operating exposure faced by a firm. If the change in the exchange rates is matched by an equal change in the price levels, i.e. Relative PPP is maintained (or in other words, the real exchange rate remains unchanged), the relative competitive positions of domestic and foreign firms will not change, and hence, there will be no change in the cash flows of the domestic firm due to exchange rates. Hence, there will be no economic exposure as well. On the other hand, in case of a change in the real exchange rate, the relative prices (i.e. the ratio of the domestic goods' prices to the prices of foreign goods) will change, resulting in a change in the domestic firm's cash flows. Hence, it follows that in case relative PPP holds good, even a widely fluctuating and unpredictable exchange rate will not result in operating exposure. On the other hand, even a relative stable exchange rate can result in operating exposure if it is not matched by appropriate changes in the price levels. The hidden dangers of a fixed or stable exchange rate become clear from the above discussion. Hence, we can say that a real appreciation of a currency harms the domestic exporting and import-competing industries, while a real depreciation has the opposite effect.

A change in the real exchange rate getting translated into a change in a firm's cash flow is dependent upon the price flexibility enjoyed by it. When the domestic currency experiences a real appreciation, for an export-oriented firm the flexibility gets reflected in whether it can increase its foreign-currency prices proportionately, and in case of a firm competing with imported goods, it gets reflected in whether the company can maintain its domestic prices at the existing level in face of the lower price of the imported goods without losing sales.

The price flexibility enjoyed by a firm is largely a factor of the price elasticity of demand. Price flexibility is negatively correlated to price elasticity, i.e. the more price elastic the demand, the less flexibility the firm enjoys changing the foreign-currency price (or keep the domestic price unchanged, in case of a firm

facing competition from imported goods) of its product. The price elasticity of demand, in turn, is dependent on several factors. These are:

- Degree of competition
- Location of competitors
- Degree of product differentiation

Degree of Competition

Many competitors restrict the flexibility of prices enjoyed by a firm. This is so because with many suppliers, it will be very easy for the consumers to change from one product to another. Hence, the lower the competition faced by a firm, the higher the price flexibility.

Location of Competitors

If most of the competitors are in the same country as the exporting firm, all of them will face the same changes in costs and pressures on profits as a result of a change in the real exchange rate. This will enable them to change the foreign-currency price of their product collectively, without having any effect on their competitiveness.

Degree of Product Differentiation

A firm's product being unique and different in some way from its competitors' products, helps it charge a premium on it. The higher the product differentiation, the more the price flexibility the firm enjoys.

A firm's exposure is also a factor of the flexibility it enjoys to shift its production centers and the sources of its raw materials. An MNC having production centers in different countries is less exposed to exchange rate movements because it can increase the production in a country whose currency has depreciated. It can decrease production where the currency has appreciated. Also, having a production center in the country where the goods are to be sold reduces the exposure by matching the currency of costs and revenue.

Activity 9.2

Russel Enterprises, an Indian multi-national firm had taken a loan from Bank of America, US at USD 1 million to import machines. When the import materialized, the exchange rate was ₹ 67 and was shown in the book of firm accounts at ₹ 67 crore. Which type of risk exposure would the firm face while converting the loan amount to Indian rupee, with rupee value depreciating? How would it affect the net profits of the firm?

Contd. .....

Answer:

There is an important relationship between transaction and translation exposure. A translation exposure may get converted into transaction exposure. This would happen when an asset or liability is liquidated. In the same way, a transaction exposure may result in a translation exposure. This would happen when there is some transaction exposure outstanding at the time of preparation of financial statements. For example, a receivable on account of an export transaction would need to be converted into the domestic currency if the financial statements are prepared before the receivable is realized. On the other hand, there is an important difference between transaction and translation exposure on one hand, and operating exposure on the other hand. While the former is the result of transactions already entered or assets and liabilities already on hand, the latter is more forward looking and takes into account the effects on future cash flows. The techniques/tools used for managing transaction or translation exposure are more operational in nature whereas the approach adopted for managing economic exposure is more strategic in nature.

Check Your Progress – 2

6. Which of the following types of foreign exchange risk would arise from foreign currency denominated transactions that an entity had in its operations?
   a. Transaction exposure
   b. Translation exposure
   c. Accounting exposure
   d. Economic exposure
   e. Operating exposure
7. Which of the following types of exposure is there to a business entity if it has assets and / or liabilities that are denominated in a foreign currency?
   a. Transaction exposure
   b. Translation exposure
   c. Transition exposure
   d. Economic exposure
   e. Operating exposure

8. Which of the following exposure types has an impact on the firm's future operating revenues, costs and cash flows?
   a. Transaction exposure
   b. Translation exposure
   c. Accounting exposure
   d. Economic exposure
   e. Operating exposure
9. Which of the following would mitigate the risk of a company that has translation exposure?
   a. Arbitraging
   b. Speculating
   c. Hedging
   d. Swapping
   e. Engaging in Forward spots
10. A firm's book value of assets in the financial year 2021-22 stood at ₹ 68 crore, being depreciated at 20% p.a. (i.e. 136 lakh). The assets were acquired out of loan amount of USD 10 million. If the dollar value gets appreciated to ₹ 70 per dollar after one year, what would be the translation loss/gain that a firm would incur from the date of recording its transactions?
   a. ₹ 2 crore
   b. ₹ 40 lakh
   c. ₹ 1 crore
   d. ₹ 20 lakh
   e. ₹ 1.5 crore

9.6 Summary

- This unit explained the difference between the exchange risk and exposure. It also introduced the different kinds of exposure.
- Foreign exchange exposure results in foreign exchange risk due to the unanticipated variability in exchange rates.
- Variability of exchange rates gives rise to foreign exchange exposure and foreign exchange risk.
- A change in the exchange rate may be accompanied by a change in the foreign-currency value of an asset or liability.

- Domestic assets and liabilities are not directly exposed to exchange rate movements, as no conversion from a foreign currency to the domestic currency is involved.
- The calculation of exposure would also be done in the same way as for foreign assets and liabilities whose values change with a change in the exchange rates.
- Transaction exposure is the exposure that arises from foreign currency denominated transactions which an entity is committed to complete.
- Translation exposure is the exposure that arises from the need to convert values of assets and liabilities denominated in a foreign currency, into the domestic currency.
- Operating exposure is a result of economic consequences (rather than accounting consequences, as in the case of transaction and translation exposure) of exchange rate movements on the value of a firm, and hence, is also known as economic exposure.
- A firm's exposure is also a factor of the flexibility it enjoys shifting its production centers and the sources of its raw materials.
- There are various kinds of instruments that are available to a firm to hedge itself against these exposures. These instruments are together called derivatives.

9.7 Glossary

Debenture is a debt instrument that can be issued by a company.

Depreciation is a decrease or loss in value, as because of age, wear, or market conditions.

Foreign Exchange Exposure is the exposure of the amount of assets, liabilities and operating income that is at risk from unexpected changes in the exchange rates.

Foreign Exchange Risk is the resulting deviation in domestic currency value attributable to unanticipated changes in exchange rates.

Forward Rate is the unbiased estimate of future spot rate.

International Pricing refers to the value determination process for goods or services in an appropriate international market environment.

Operating Exposure is the extent of firm's exposure to economic consequences of exchange rate movements.

Price Elasticity is a measure of the relationship between a change in the quantity demanded of a good and a change in its price.

Transaction Exposure is the extent of entity's exposure that arises from contractual, foreign currency future cash flows.

Translation Exposure is the need to covert foreign currency values of assets and liabilities into domestic currency.

9.8 Self-Assessment Test

1. State the nature and characteristics of foreign exchange exposure.
2. How do fixed foreign currency values affect the foreign currency assets and liabilities in the home country? –Discuss
3. Briefly explain the effect of change in foreign currency assets and liabilities with volatility in exchange rates.
4. "Measurement of exposure on operating profits is the most difficult case to examine in export-oriented companies"- Elucidate.
5. Illustrate the nature of computation of foreign exchange risks.
6. Enumerate on the types of exposures that are usually encountered by multinational corporates.
7. Explain the factors that influence the price elasticity of demand.

9.9 Suggested Readings/Reference Materials

1. Francis Cherunilam, International Business - Text and Cases, 6th Edition, PHI Learning.
2. P G Apte (2020), International Financial Management, McGraw Hill Education (India) Private Limited.
3. Madhu Vij (2021). International Financial Management – Text and Cases. 4th edition. Taxmann
4. Charles W. L. Hill, G. Tomas M. Hult (2021). International Business. 12th edition. McGraw Hill Education (India) Private Limited.
5. Choel S. Eun & Bruce G. Resnick (2022). International Financial Management. 8th edition. McGraw Hill Education (India) Private Limited.
6. K. Aswathappa (2020). International Business. 7th edition. McGraw Hill Education (India) Private Limited.

9.10 Answers to Check Your Progress Questions

1. (b) Operating income of a firm is not exposed to exchange rate movements

Operating income is exposed to exchange rate movements and any change in exchange rates is likely to result in a change in the firm's revenue in domestic currency terms.

2. (a) Slope of the regression line

The exposure is given by 'a' and the exposure is measured on the exposure line, i.e. slope in the regression equation.

3. (c) The exposure of the foreign currency value of an asset or liability with the change in exchange rate would be infinite

The exposure of foreign currency value of an asset or liability with the change in exchange rate cannot be infinite to the corresponding value of assets or liability.

4. (b) Decrease the variability of expected cash flows

Hedging activity is used by multi-national firms or corporates to decrease the variability of expected cash flows.

5. (a) Exposure

Exchange rate risk is expressed as a function of exposure in the regression equation.

6. (a) Transaction Exposure

Transaction exposure is a type of foreign exchange risk that arises from foreign currency denominated transactions that an entity is committed to complete.

7. (b) Translation Exposure

Translation exposure can affect any company which has assets or liabilities that are denominated in a foreign currency or any company that operates in a foreign marketplace that uses a currency other than the parent company's home currency.

8. (e) Operating Exposure

Operating exposure is the extent of firm's exposure to economic consequences of exchange rate movements that can have an impact on the firm's future operating revenue, costs and cash flows.

9. (c) Hedging

A company with foreign operations can protect against translation exposure by hedging.

10. (a) ₹ 2 crore

When the exchange rate appreciates to ₹ 70 per USD then the value of assets would get increased to ₹ 2 crore (USD 10 million * 70 = ₹ 70 crore – ₹ 68 crore) depreciated at 70 * 0.20 = ₹ 14 lakh. Thus, there will a translation loss of ₹ 2 crore due to the increased value of loan besides higher depreciation. This reduces the net profits of the enterprise.

Unit 10

Management of Exchange Risk

Structure

10.1 Introduction

10.2 Objectives

10.3 Management of Transaction and Translation Exposures

10.4 Management of Economic Exposure

10.5 Management of Operating Exposure

10.6 Country Risk Analysis

10.7 Risk Management Practices in International Trade

10.8 ECGC: Coverage of Political and Commercial Risks, ECGC Policies and Guarantees

10.9 Funding aspects through International Markets

10.10 Summary

10.11 Glossary

10.12 Self-Assessment Test

10.13 Suggested Readings/Reference Materials

10.14 Answers to Check Your Progress Questions

"Not even the "safest" investment is without some risk and some element of speculation."

- Bernard Baruch, American financier, stock market speculator, statesman, and presidential advisor

10.1 Introduction

There is no investment which is risk free. Speculation coupled with managing the risk is the best way to earn profits.

In the previous unit, we explained about the required knowledge of various derivative tools. They also explained about how these tools can be used to hedge exchange risk. 'Hedge' means 'reduce' or 'control' risk.

Hedging is two-step process. The exposures to foreign exchange risk is to be hedged at the present price levels and at future price levels. If the position continues, the risk continues in future also as the changes in price levels may cause risk and this warrants hedging at this stage also.

In this unit, we will see how these, and other tools can be used to hedge different kinds of exposures.

10.2 Objectives

After studying this unit, you should be able to:

- Discuss various types of foreign exchange exposures
- Describe the forms of internal hedging techniques
- List out various external hedging techniques to exchange rate movements
- State the differences between hedging through options, forwards and futures
- Enumerate on the marketing strategies to manage economic exposures
- Discuss the production strategies and financial management strategies adopted by corporates to overcome exchange rate fluctuations
- Correlate country risk to the foreign exchange risk
- Analyze the role of ECGC against its risk coverage, policies and guarantees
- What are the different modes of funding in international markets

10.3 Management of Transaction and Translation Exposures

'Transaction exposure' introduces variability in a firm's profits. For example, the price received in rupee terms by an Indian exporter for goods exported by him/her will not be known till he/she converts the foreign currency receipts into rupees. This price varies with changes in the exchange rate. While 'transaction exposure' arises out of the day-to-day activities of a firm, 'translation exposure' arises due to the need to translate the foreign currency values of assets and liabilities into the domestic currency.

The differences in the aforesaid two (2) types of exposures result in some basic differences in the way they are required to be managed. Management of 'transaction exposure' is primarily a day-to-day operation carried out by the treasurer. It includes continuous monitoring of exchange rates and the firm's exposure. It is done along with an evaluation of the effectiveness of the hedging techniques employed. On the other hand, management of 'translation exposure' is a periodic affair, carried out at the time of preparation of financial statements. This makes the management of 'translation exposure' more of a policy decision, rather than a day-to-day issue to be handled by the treasurer.

Management of exposure primarily means elimination of or reduction of exchange rate risk through hedging. It includes taking a position in the foreign exchange and/or the money market which cancels out the outstanding open position. Though the frequency at which the need to manage 'transaction' and 'translation exposure' may differ, the basic instruments that can be applied are the same. These instruments can broadly be categorized as 'internal' and

'external' instruments. Internal instruments are those which are a part of the day-to-day operations of a company, while the external instruments are specifically undertaken for the purpose of hedging exchange rate risk. Here, it needs to be noted that the term internal does not exhibit that no external party is involved. It only exhibits that it is an ordinary activity for the company.

The different types of internal hedging techniques are:

- Exposure netting
- Leading and lagging
- Hedging by choosing the currency of invoice, and
- Hedging through sourcing

10.3.1 Internal Hedging Techniques- Exposure Netting

'Exposure netting' is a type of internal hedging technique that involves creating exposures in the ordinary course of business which offset the existing exposures. The exposures so created may be in the same currency as the existing exposures, or in any other type of currency. But the effect should be that any movement in exchange rates that results in a loss on the original exposure should result in a gain on the new exposure. This may be attained by creating an opposite exposure in the same currency or a currency which moves in tandem with the currency of the original exposure. It may also be attained by creating a similar exposure in the currency which moves in the opposite direction to the currency of the original exposure.

10.3.2 Leading and Lagging

Leading and lagging is a type of internal hedging technique that can also be used to hedge exposures. Leading includes an advance payment, means making a payment before it is due. On the other hand, lagging refers to payment postponement. A company can make payments required to be made in a currency that is likely to appreciate and lag the payments that it needs to make in a currency that is likely to depreciate.

10.3.3 Hedging by Choosing the Currency of Invoicing

One very simple way of eliminating 'transaction' and 'translation exposure' is to invoice all receivables and payables in the domestic currency. However, only one of the parties involved can hedge itself in this manner, thereby leaving the other party exposed as it will still be dealing in a foreign currency. Further, as the other party needs to cover its exposure, it is likely to build in the cost of doing so in the price it quotes or is interested to accept.

Another way of using the choice of invoicing currency as a hedging tool relates to the outlook of a firm about various currencies. This includes invoicing exports

in a hard currency and invoicing imports in a soft currency. The currency so selected may not be the domestic currency for either of the parties involved and selected because of its stability for example, the dollar, which serves as an international currency.

Further, the parties involved in international transactions may hedge exposures by sharing the risk. This may be attained by denominating the transaction partly in each of the domestic currencies of the parties involved. This is how the exposure for both the parties gets reduced.

10.3.4 External Hedging Techniques

Hedging through Sourcing

Sourcing is a specific way of exposure netting. It involves a firm buying the raw materials in the same currency in which it sells its products. This results in exposure netting, at least to some extent. This technique has its own disadvantages. A company may have to purchase the raw material which is costlier or of lower quality than it can otherwise purchase, if it restricts the available sources in this manner. Due to this, this technique is not applied extensively by firms.

External hedging techniques are:

- Forwards
- Futures
- Options, and
- Money markets

Hedging through the Forward Market

In order to hedge its 'transaction exposure', a company having a long position in a currency (having a receivable) will sell the currency forward, i.e., 'go short' in the forward market, and a company having a short position in a currency (having a payable) will buy the currency forward, i.e. 'go long' in the forward market.

The idea behind selling or buying a currency in the forward market is to lock the rate at which the foreign currency transaction takes place. Hence, the costs or profits. For example, if an Indian firm is importing computers from the USA and needs to pay $ 100,000 after three (3) months to the exporter, it can book a 3-month forward contract to buy $ 100,000. If the 3-month forward rate is ₹ 62.50/$, the cost to the Indian firm will be locked at ₹ 62,50,000. Whatever be the actual spot price at the end of three (3) months, the firm requires to pay only the forward rate. Thus, a forward contract eliminates the 'transaction exposure'.

Most of the times, when the 'transaction exposure' is hedged, the 'translation exposure' gets automatically hedged. In the aforesaid example, the 'translation exposure' gets automatically hedged as any loss or gain on the outstanding

payable gets set-off by the gain or loss on the forward contract. But there may be cases where the 'translation exposure' may require to be hedged, either because the underlying 'transaction exposure' has not been hedged or because the 'translation exposure' arises owing to the company holding some long-term asset or liability. In such cases also, 'forward contracts' may be applied to hedge the exposure.

The firm would require computing its net exposure in a currency and then book an opposite forward contract, thus nullifying its exposure. For example, if a firm has a net positive exposure of $ 100,000, it will sell $ 100,000 forward so that any loss by exchange rate movements on account of the main exposure will be set-off by the gain on the forward contract, and vice versa. However, the gain or loss on the underlying exposure will be notional while the loss or gain on the forward contract will be real and includes cash outlay.

The cost of a forward hedge can be determined by the opportunity cost, which depends on the expected spot rate at which the currency should be bought or sold in the absence of the forward contract. Thus, the cost of a forward hedge is calculated as the difference between the forward rate and the expected spot rate for the relevant maturity. In an efficient market, as mentioned earlier, the forward rate is an unbiased predictor of the future spot rate. The process equating these two requires the speculators to be risk neutral. Hence, when the markets are efficient and the speculators are risk-averse, the cost of hedging through the forward market will be zero, i.e., nil.

Hedging through Futures

The second way to hedge exposure is through futures. The rule is the same as in the case of forward market. This means 'go short' in futures if you are 'long' in the currency and vice versa. Hence, if an importer requires to pay $ 250,000 after four months, he can buy dollar futures for the requisite sum and maturity. 'Futures' can be similarly used for hedging 'translation exposure'. Hedging through futures has an effect like hedging through forward contracts. As the gain or loss on the futures contract gets canceled by the loss or gain on the underlying transaction, then the exposure gets almost eliminated. Here it is assumed that 'basis', i.e., the difference between spot price and future price remains constant. Only a small part of the exposure is left because of the 'mark-to-market risk' on the futures contract. The main difference between hedging through forwards and through futures is that while under a forward contract the receipt/payment takes place at the time of maturity of the contract, but in case of futures, there has to be an initial payment of margin money called the initial margin, and further payments/receipts during the tenure of the contract shall be on the basis of market movements called *maintenance margins*.

Hedging through Options

'Options' can prove to be a flexible and useful tool for hedging transactions and 'translation exposure'. A firm having a foreign currency receivable can buy a 'put option' on the currency, having the same maturity as the receivable. Conversely, a firm having a foreign currency payable can buy a 'call option' on the currency with the same maturity.

Hedging through 'options' has an advantage over hedging through 'forwards' or 'futures'. While the latter fixes the price at which the currency will be bought or sold, 'options' limits the downside loss without limiting the upside potential. Because, since the firm has the right to buy or sell the foreign currency without any obligation, it can let the option expire by not exercising its right in case the exchange rates move in its favor, thereby making the profits it would not have made had it hedged through 'forwards' or 'futures'. But this advantage does not come free. Because of this feature, 'options' generally cost more than the other tools of hedging.

Another advantage rendered by 'options' is flexibility. There is only one exchange rate at which a currency can be bought or sold under a 'forward' or a 'futures' contract. On the other hand, options are available at different exchange rates. Based on the firm's outlook about the future and its risk-taking capacity, it can buy a suitable contract.

An 'option' has a strike/exercise price and premium. 'Premium' is the price paid for the option. Importers as well as exporters can apply these 'options' to hedge their risk.

Hedging through the Money Markets

Money markets can also be used for hedging foreign currency receivables or payables. For example, a firm has dollar payables after three months. It can borrow in the domestic currency now, convert it at the spot rate into dollars, invest such dollars in the money markets, and use the proceeds to service the payables after three months. This process has been described in detail in unit 6 of the Foreign Exchange Market. This process locks the exchange rate at which the firm needs to buy the dollars. At the same time, it knows that its total cost in advance in the form of the principal and interest, it needs to repay in the domestic markets.

We have observed in Unit 7 - Exchange Rate Determination that in the absence of transaction costs, the exchange rate determined in this manner will be the same as the forward rate. It is prevalent that with the presence of transaction costs, the forward market would offer better rates than the money market.

Check Your Progress – 1

1. Identify the exposure that introduces the variability in a firm's profits.
   a. Translation
   b. Transaction
   c. Accounting
   d. Operating
   e. Economic
2. Which of the following management functions reduces or eliminates exchange rate risk through hedging?
   a. Management of exposure
   b. Management of exchange transaction
   c. Management of internal transaction
   d. Management of external transaction
   e. Management of funds
3. What is the process that involves creating exposures in the normal course of business which offsets the existing exposures?
   a. Leading
   b. Lagging
   c. Exposure netting
   d. Currency invoicing
   e. Sourcing
4. An Indian exporter of home-made chocolates to various countries had imported Alps chocolate variety from Switzerland. The firm agreed to pay the price after three months and takes the option of forward contract to buy Swiss franc (CHF) 50,000 for which the forward rate quoted is ₹ 65.50 per CHF. Which of the following exposures are completely reduced, when the quoted currency exchange rates are locked in for a period of three months instead of paying the value at spot price?
   a. Translation exposure
   b. Transaction exposure
   c. Accounting exposure
   d. Operating exposure
   e. Economic exposure
5. In which of the following markets, hedging can be utilized to transact the foreign currency receivables or payables?
   a. Forward markets
   b. Futures

c. Options
d. Money market
e. Spot market

Let us see a few comprehensive illustrations.

Illustration 10.1

An Indian firm exports jeans to the US. Currently, it sells 20,000 pieces at $ 30 per piece. Its cost per piece of jeans is ₹ 300. In addition, it needs to import certain raw material which costs $ 10 per piece. The fixed costs of the company are ₹ 2,000,000. The current spot rate is ₹ 64.00/$. Suppose that the rupee appreciates to ₹ 60/$, how many additional units should the company sell for its profits to remain unchanged?

Solution

The company's existing profits can be calculated as follows:

		(in ₹)
Sales (20,000 x 30 x 64)		38,400,000
Variable costs:		
300 x 20,000 = 6,000,000		
10 x 64 x 20,000 = 12,800,000		
	18,800,000	
Fixed costs	2,000,000	
		20,800,000
Profit		17,600,000

After the Rupee appreciation, the company's profits will be

(in ₹)

Sales (20,000 x 30 x 60)		36,000,000
Variable costs:		
300 x 20,000 = 6,000,000		
10 x 60 x 20,000 = 12,000,000		
	18,000,000	
Fixed costs	2,000,000	
		20,000,000
Profit		16,000,000

As a result of the appreciation of the domestic currency, the profits of the company dipped despite selling the same number of units at the same dollar price. Let the number of units that need to be sold for keeping the profits at the pre-appreciation level be 'X'. Here, we are assuming that the company can sell unlimited quantity at the existing dollar price.

Then,

17,600,000	= (60 x 30 x X) – [(300 x X) + (10 x 60 x X) + 2,000,000]
17,600,000	= 1,800 X – 900 X – 2,000,000
15,600,000	= 900 X
X	= 15,600,000 / 900 = 17,333 units (approx.).

Hence, the firm needs to sell additionally 2,667 units to maintain its pre-appreciation profits.

While using these hedging techniques to hedge transaction exposure, it needs to be remembered that their use may not necessarily result in hedging the economic exposure arising out of the transactions being hedged. Take the example of an importer who imports shirts and sells them in the local market. There are other competitors in the market who do the same thing. Let us suppose this importer locks-in the domestic-currency price of his/her imports by buying forward contract, while his/her competitors do not. In such a case, if the domestic currency appreciates, his/her competitors would be able to reduce the price of the shirts, which he/she would not be able to do due to his fixed costs. Thus, his/her competitors would be successful in taking away his/her business and profits. On the other hand, in case of a depreciation of the domestic currency, he/she would be able to sell the shirts at a much cheaper rate than his competitors, thereby increasing his/her sales and profits. Thus, though the domestic-currency costs of the producer are hedged, the variability of his/her profits arising out of economic exposure remain unhedged. Management of economic exposure requires the use of specific techniques which are discussed in the following section.

Activity 10.1

The board of Cozy India Limited has decided to offset the translation exposures owing to Rupee denominated assets exceeding Rupee denominated liabilities. The net worth of forward sales amounted to ₹ 20 million. What are the forward contracts? How do forward contracts offset the value of assets and liabilities in a foreign currency?

Answer:

10.4 Management of Economic Exposure

As was mentioned previously, economic exposure cannot be managed by the traditional hedging techniques due to the unpredictability of the changes in the

cash flows. Rather, it requires various marketing, production and financial management strategies to cope with the risks.

Changes in real exchange rates may either bring about losses, or create an opportunity to increase the profits for an exposed firm, by changing the relative prices. Hence, the competitiveness of the firm. Depending on the duration for which a change in the exchange rate is expected to last, an appropriate strategy can be adopted. For example, if an appreciation of the domestic currency is not expected to last long, the firm may decide not to increase the foreign-currency price of its product if it considers the cost of regaining the lost market share to be too high. On the other hand, if the exchange rate change is likely to last for a longer period, the cost of regaining the market share may become lower than the profit that would be lost if the price is not increased. This may persuade the firm to increase the foreign-currency price even at the cost of losing market share (again, depending on the volume of market share that will be lost, which will be dependent on the price elasticity of demand). If the change is expected to last for a very long time, the firm may even consider shifting its production capacities to a country whose currency has depreciated.

Illustration 10.2

Vinod Textiles exports leather jackets to France. For the year ended March 31, 20XX, the company exported 25,000 pieces at an average price of € 25 per piece. The average cost of producing each piece for the company is ₹ 1,250. The price elasticity of demand for company's product in the French market is € 1.50. Prevailing Rupee-Euro exchange rate during the last year was ₹ 70. In the current year, Rupee-Euro exchange rate is expected to be at ₹ 74.

You are **required** to compute

a. The change in profit due to transaction exposure.

b. The change in profit due to economic exposure, if the company passes on the benefit of depreciation to the buyer.

Solution

a. Current profit at exchange rate of ₹ 70/€

= ₹ 25,000 × (25 × 70 – 1,250)

= ₹ 125 lakh

Profit if rupee depreciates to ₹ 74/€

= ₹ 25,000 × (25 × 74 – 1250)

= ₹ 150 lakh

∴ Increase in profit due to depreciation of rupee (transaction exposure)

= ₹ 150 – 125

= ₹ 25 lakh

b. Selling price of each garment in rupee term = ₹ 25 × 70 = ₹ 1750

Price in Euros after depreciation of rupee = $\frac{1750}{74}$ = € 23.6487

∴ Decrease in price of each piece = 5.41 %

∴ Change in quantity demanded = –1.5 × (– 5.41) % = 8.12%

∴ Number of pieces to be sold = 25,000 × (1 + 0.08115) = 27,029

Profit = ₹ 27,029 x (1750 – 1250)

= ₹ 1,35,14,500

∴ Increase in profit due to economic exposure

= ₹ (135,14,500 – 125,00,000)

= ₹ 10,14,500.

10.4.1 Marketing Strategies

The marketing manager requires to analyze the effect of a change in the exchange rate and evaluate the strategy required to manage the exposure.

The four strategies are:

- Market selection
- Pricing strategy
- Promotional strategy, and
- Product strategy

Market Selection

The marketing strategy is useful when an actual or an anticipated change in the real exchange rate is likely to persist for a long time. It involves the selection of markets in which the firm opts to market its products and providing relevant services to the firm to serve as an edge in these markets. This may convert into pulling out of the markets which have become unprofitable due to the depreciation of the currency of that market or entering into those markets that have become attractive as a result of currency appreciation in that market.

Knowledge about market segmentation is an important input for a decision about the market selection. Before pulling out of a market, the effect of a change in the exchange rate on the cash flows of the firm needs to be analyzed. The cash flows of a firm selling a highly differentiated product to high-income customers may not be affected by the exchange rate movement, thus not requiring the firm to pull out of the market. Similarly, a company that does not target at the low-price mass market may be able to access that market as a result of a depreciation of the domestic currency. In both the cases, the decision about market selection gets affected by market segmentation.

Pricing Strategy

There are two main issues involved in developing a pricing strategy. They are (1) the choice between market share and profits, and (2) the frequency of price adjustments.

Market Share vs. Profit Margin: When the domestic currency appreciates, a firm can either reduce its domestic currency prices, thus maintaining the foreign currency prices at the pre-appreciation level or maintain the domestic currency prices which would result in an increase in the foreign currency price. The former would result in the profit margins coming down, while the latter may result in a fall in the market share, which would again affect the profits of the firm. On the other hand, a firm facing a depreciation of the domestic currency may either increase the domestic currency price which would result in the profit margin going up, called price skimming, or maintain them at the pre-depreciation level, hence reducing the foreign currency price to increase its market share, called penetration pricing.

A company facing competition from the imported goods faces a similar dilemma. In the face of a domestic currency appreciation, it can either let the price of its product remain unchanged, thus risking a reduction in the market share, and hence, the overall profits, or it can reduce the price, thus reducing the profit margin.

As mentioned earlier, the final decision would depend on the price elasticity of demand. The greater the price elasticity, the higher the incentive to take a hit on profit margins rather than on market share. An important point that needs to be focused while taking the decision is that it may not always be possible to regain the lost market share. Even if it is possible, the cost may be prohibitive. This brings the expected duration of the change in the exchange rate into the picture. The longer the expected duration, the lesser the importance of lost sales.

Another factor that needs to be considered is economies of scale faced by the company. In case of large economies of scale, it may make more sense to forego larger profit margins and to try to make up the lost profit through higher volumes. But with lower volumes of output when the company does not enjoy economies of scale, the firm tries to protect its margins by taking a defensive mechanism against possible losses.

Frequency of price adjustments: While a firm decides to change the price of its products with a change in the exchange rates, it would still require deciding upon the frequency of such price changes. As we know, exchange rates move even on a minute-to-minute basis. A firm's sales may get affected by frequent price changes, because of the resultant risks faced by its consumers. On the other hand, a firm may lose on account of unfavorable exchange rate movements if it delays a change in the price of its product. Finally, a balance between the two needs to

be attained, based on the level of uncertainty the firm's customers are ready to face, the duration for which the exchange rate movement is likely to persist and the loss expected to be incurred by not changing the prices.

Promotional Strategy

The promotional strategy deciding the amount that the firm desires to spend in various markets in promoting its products needs to take into consideration the exchange rate movements. A change in the exchange rate would change the domestic-currency costs of overseas promotion. The effect of exchange rate movements on promotional costs is also in the form of the expected revenues that can be generated per unit of expenditure on promotion. For example, a devaluation of the domestic currency may improve the competitive position of an exporting firm, thus increasing the expected revenue per unit of promotional cost. This may persuade the firm to increase the promotional expenditure in those markets. When the promotional strategy takes these factors into consideration on a pro-active basis rather than on a reactive basis, the benefits are expected to be more.

Product Strategy

A firm can apply product strategy to respond to exchange rate movements. It may include the timing of introduction of new products, making product-line decisions and product innovations. The best time for a company to introduce a new product would be when it has a price advantage. For example, in case of an exporting firm, when the domestic currency has depreciated. The firm may require holding back the products from the market when the conditions are unfavorable. It is easier to establish a new product in the international markets with a favorable pricing scenario, than with an unfavorable one. Product-line decisions refer to the company having to change its products in accordance with the exchange rate movements. As outlined in market selection, it includes, according preference to producing high-end products at the time of an appreciation in the domestic currency and producing mass products at the time of depreciation in the domestic currency. It may even include an effort to improve the quality of the product by using new technology or through more Research and Development (R&D) investments. While market selection refers to marketing the right product in the right market, product-line decisions involve changing the product-mix. The third component of this strategy is product innovations. In the face of an appreciating domestic currency and extremely competitive conditions in the international market, the firm may be able to protect its cash flows by regularly coming up with innovative products. Thus, by offering differentiated products to its customers, the firm may be able to protect its foreign currency price, and hence, its profits.

10.4.2 Production Strategies

Sometimes exchange rate movements are too large and long-lasting to be handled by marketing strategies. In these scenarios, the production manager may require stepping in, to take long-term decisions to protect the firm from harmful effects of an unfavorable exchange rate movement, or to help it take advantage of favorable movements.

The following strategies would be available to the production manager:

- Input mix
- Product sourcing
- Plant location, and
- Raising productivity

Input Mix

The pressures on the profits of an exporting firm due to an appreciating domestic currency can be countered by buying more inputs in the international markets rather than in the domestic market. This would decrease the costs at the time of reducing revenues, thus safeguarding the profits, at least to some extent. Another way of attaining the same objective is to outsource the intermediate inputs, either from producers in the country where the firm is selling its final product, or from producers of a country whose currency is closely linked to that of the country in which it markets its products. At the same time, it would create pressure on the domestic producers of the intermediate inputs and force them to become more competitive, thus proving advantageous to the exporting firm.

Contrarily, a firm which has production capacities in other countries can benefit from a depreciating domestic currency by sourcing more of its inputs from the domestic market. However, while rendering such a decision, the firm would need to observe the price behavior of the domestically produced inputs. In the wake of domestic currency depreciation, the domestic prices of tradable goods, or those using imported inputs are likely to go up, reducing the price advantage of sourcing the inputs from the domestic market. On the other hand, the prices of non-tradable goods and goods using little imported inputs are likely to remain stable.

To enable these changes, the technology applied by the firm for production should be flexible and capable of adjusting to inputs sourced from different producers. This requires making a comparison between the costs of making the technology flexible, and the expected reduction in profits in case the input mix is not changed. The final decision must be based upon the comparative costs.

Product Sourcing

One of the methods of countering exposure is to shift production among different production centers. This strategy pre-supposes the presence of production

facilities in more than one country. As a response to exchange rate movements, the firm can reallocate production to increase the quantity produced in the country whose currency has depreciated and reduce output in countries whose currency has appreciated. Because of this flexibility, an MNC faces less economic exposure than a company having production facilities in only one country.

In the real scenario, there may be several problems coming in the way of such adjustments. For example, availability of an important raw material in a country, protest by labor unions to shifting of production, as it is likely to result in redundancies, etc. It may not always be possible to resolve such problems.

Another problem is that establishment of multiple production facilities may not reap economies of scale resulting in higher cost per unit, excess capacities, and higher fixed costs in times of low production requirements. These costs must be weighed against the benefits of production flexibility provided by the presence of multiple production facilities. These additional costs can be seen as the cost of an option to produce goods at an alternative location, whose value increases with an increase in exchange rate volatility.

Plant Location

Companies which do not have the multiple production facilities may be forced to set up such facilities abroad as a response to exchange rate movements which change the relative cost advantages of countries. Firms may even decide to set up the production facilities in third-world countries for labor-intensive products because of the low labor cost there, without there being any specific advantage due to exchange rate movements.

Such decisions must be taken after giving due consideration to the duration for which such production facilities are likely to enjoy cost advantages. Since these commitments are long-term in nature, the benefits should be expected to continue for a substantially long period, for such investment to be justified. The underlying economic factors of the country where the setting up of production facilities is being contemplated need to be evaluated thoroughly before a decision is made. Sometimes the root cause of the depreciation of that currency, which gives the country its cost advantage, may be such as to make the cost advantage last only for a short-term, for example - inflation. In such situations, it may be advisable not to make an investment.

The advantages accruing from the setting up of these facilities also need to be weighed against the factors like loss over quality control, distance from suppliers of crucial inputs, the political environment in that country resulting in additional risks. A decision should be taken after all these relevant factors have been duly considered.

Raising Productivity

Appreciation of the domestic currency increases the costs of an exporting firm in terms of the foreign currency, thus making the product uncompetitive in the international market. Exporters are forced to either cut the margins or lose market share. This problem may be resolved by the firm trying to reduce the domestic currency cost of its product in the wake of a domestic currency appreciation. This occurs automatically when imported raw materials or intermediate inputs are being used. But when this is not the case, the firm may have to resort to various other measures like attempting to increase the productivity of the various factors of production. It may entail in modernizing the machinery and the technology, renegotiating wage agreements, closing inefficient plants, pruning the product line, etc.

Activity 10.2

If an Indian company's major supplies (say 60%) are from Bahrain and 20% of its sales are Dinar denominated from Bahrain, what kind of economic exposure will the company face? As an analyst, what would be your advice to the company in managing its economic exposure due to exchange rate fluctuations?

Answer:

10.4.3 Financial Management Strategies

The production and marketing strategies detailed above generally take some time to be implemented. The focus of the financial management strategies is to control the damage caused by unfavorable exchange rate movements while the above strategies are being implemented. The major financial management strategy is to create liabilities in the currency of the earnings to a large extent, thus creating a natural hedge. Any loss of operating profits caused due to exchange rate movements would then be made up at least partially by reduction of debt-servicing costs.

It must be kept in mind that while this strategy can be used for managing large exposures in currencies, it can neither be used to hedge exposures perfectly, nor for managing exposures in all the currencies. A comparative analysis of the exposures in various currencies needs to be done before deciding on the final strategy.

10.5 Management of Operating Exposure

Foreign exchange rates keep fluctuating because of the changes in 'demand' and 'supply' of respective currencies. Whenever the forex rates alter the fortunes of the companies that have international trade; 'operations' or 'investments' also change. The impact of the unexpected changes in foreign exchange rates will have an impact on the future corporate sales, profits and consequently on the market value of the corporate. This is known as economic or operating exposure. In a corporate setting, operating or economic exposure is managed by finance professionals by applying a variety of risk management strategies involving derivative and non-derivative alternatives such as:

- Matching foreign currency flows
- Risk-sharing agreements
- Parallel loans
- Re-invoicing centers
- Currency swaps

Out of the above, the first four mechanisms are applied for dealing with risk associated with operating cash flows. 'Currency swaps', on the other hand, is more relevant in the context of financing cash flows.

Matching Foreign Currency Flows: The best way to mitigate currency exposure is through creation of a natural hedge. An Indian company which is exporting goods/services to the Russian markets should borrow in the Russian Roubles (RUR). In this process, even if there is variation in the foreign exchange rates leading to hardening or softening of RUR, it would not impact the exporter. In the Indian context, most of the exporters denominate their trade in the USD so they would create liabilities in USD as a natural hedge. During 2018, the INR depreciated by 11% against the USD (from ₹ 63 to ₹ 71) exposing Indian exporters to currency risk. A leading stockbroker tracked the top 500 companies listed on the BSE 500 to study the impact of the fall in the value of the currency on the corporate financials. The report published in moneycontrol.com indicated that the top 30 companies accounted for 91% of the aggregate corporate forex liabilities. They classified these 30 companies into: oil; energy; infrastructure; and metals, cements, and conglomerates.

Natural hedge was available for two groups consisting of oil, and metals, cement, and conglomerates which made up 53% of the total foreign exchange liabilities as their forex earnings exceeded their forex liabilities. Natural hedge will be available when payables and receivables are there in the organization's business. Generally, in the energy and infrastructure sectors, natural hedge is not available. However, energy sector had a good interest coverage ratio, but infrastructure was most vulnerable with an interest coverage ratio of 1.

Risk-sharing Agreements: Trade partners in this type of agreement enter into a contractual arrangement to "split" or "share" forex risk between exporters and importers. For instance, BEML (Bharat Earth Movers Limited - Indian importer) enters into an agreement to buy components from Caterpillar (American exporter) on 1st April 20xx worth USD 10 million.

On that date, Spot (INR/USD) = 69.00 and both parties agree to "split" or "share" on the following terms and conditions.

On the payment date of 30th June 20xx, the value of the consignment to BEML would range between USD 9.95 million – USD 10.05 million depending on the exchange rate that prevails on the settlement date:

- If INR/USD rate varies within INR 68.00/USD to INR 70.00/USD, then BEML pays USD 10 million to Caterpillar. It means that a loss or gain of INR 1.00 per USD should be sustained/retained by BEML.
- If INR depreciates and remains within the range INR 70.00/USD to INR 75.00/USD, then the Indian importer pays only USD 9.95 million. It means that when there is a sharp fall in the INR, BEML sustains losses because of excess payment in INR. Hence, instead of paying USD 10 million, they need to pay only USD 9.95 million. Hence, the losses are shared between both the parties.
- If INR appreciates and remains within a range of INR 63.00/USD to INR 68.00, then BEML pays USD 10.05 million. It means that when the INR gains strength, BEML stands to benefit because of low payments in INR. Hence, they should share the benefits by paying USD 10.05 million.

Parallel Loans: In a parallel or back-to-back loan arrangement, Siemens (a German company) that serves the Japanese markets would borrow in ¥ from Hitachi (a Japanese company). Hitachi earns in € because of serving the Eurozone and borrowing in € from Siemens provides a natural hedge. Both companies may agree on a fixed spot exchange rate for this purpose which generally would be the current spot rate. The major challenge in this type of risk mitigation strategy is to find a willing party to take the other side of the trade.

Re-invoicing Centers: The concept of re-invoicing center involves the presence of an intermediary between exporter and importer. Intermediary directs the exporter to ship the goods to the importer, but the payment receipt is routed through a re-invoicing center. Subsequently, the intermediary collects in foreign currency from the importer and makes payment to the exporter in its home currency. As the re-invoicing center deals with multiple exporters and importers in multiple currencies, it reaps economies of scale. The re-invoicing center would hedge only the portion that cannot be netted off and hence, reduce the transaction costs associated with hedging.

Currency Swaps: It is a bilateral contract in which two parties agree to exchange interest and principal obligations in future which is denominated in two different currencies. Swap deals are not only done between corporates but also between countries.

As regards currency swaps between corporates for instance, the exchange rate between GBP/USD was 0.75. General Electric needed GBP 75 million and British Airways needed USD 100 million. General Electric had strong credentials and it could borrow either USD at 4% or GBP at 6.6% respectively. This was much lower compared to British Airways which could borrow either USD at 6% or GBP at 7%. Further, the interest rates on USD were lower than GBP because inflation was low in the USA in comparison to the UK. Hence, both companies swapped the underlying currencies to meet their immediate requirements.

Company	USD	GBP
General Electric	4.00%	6.60%
British Airways	6.00%	7.00%

The deal made commercial sense for both the companies as the spread in the USD (6.00% - 4.00%) is 200 bps and in the GBP (7.00% - 6.60%) is 40 bps. This difference (200 bps – 40 bps = 160 bps) reflects that there is opportunity to make money.

10.6 Country Risk Analysis

'Country or Sovereign risk' is the possibility that the central bank of a nation would impose exchange controls that would dilute the worth of its foreign exchange contracts. It also means that a nation would fail to honor its commitments while servicing its foreign currency obligations. Issuers/investors who look beyond their sovereign country and raise/invest would be exposed to this 'country risk'. Similarly, lenders/borrowers who have lent/borrowed in a foreign currency would be subjected to 'country risk'. As 'country risk' is inter-linked with 'foreign exchange risk', every player in the financial markets - retail or institutional - should be sensitive to this 'country risk' whenever they are parking/mobilizing funds from overseas. But there is a thin line of difference between 'country risk' and 'sovereign risk' as S&P because

- The possibility of a nation defaulting on commercial debt obligations is captured in 'Sovereign Ratings'.
- The pitfall of a country's business environment that includes legal environment, magnitude of corruption, and socio-economic variables such as income inequality is covered in 'Country Risk'.

Example: Sri Lanka Defaults on Debt for First Time in its History

Since independence, for the first time in its history, Sri Lanka had defaulted on its debt due to worst financial crisis in more than 70 years. The grace period of 30 days was crossed for payment of $78m (£63m) of interest payments expired

The governor of the South Asian nation's central bank had confirmed that Sri Lanka has defaulted. Further two of the world's biggest credit rating agencies also confirmed the same.

A chronic shortage of foreign currency and soaring inflation had led to a severe shortage of essentials. Further the country's economy had been hit hard by the pandemic, rising energy prices and President Rajapaksa government's misguided policies of freebees and lowered taxes to stay in power.

Sovereign risk / Country risk occurs when a nation would fail to honour its commitments while servicing its foreign currency obligations and led to default of some or all of their debt payments to creditors as in case of Sri Lanka.

Source: https://www.bbc.com/news/business-61505842 dated 20th May 2022, Accessed on 24.07.22

The key factors that are considered by S&P for assessing 'Country Risk' are grouped under law, government, and human development. Broadly, under each of these groups, the major considerations are:

- **Law:** Does the law protect the corporate assets? – Labor force, tangible, and intangible assets; enforceability of contracts and scope for international arbitration; the degree of corruption and its impact on the corporate strategic flexibility, cash flows, and profits.
- **Government:** Political stability at the federal level; an enabling government that formulates favorable policies which is less bureaucratic and governance that works towards betterment of business and society.
- **Human Development:** The size and potential growth of domestic market, education level and sophistication of technology, and other socio-economic variables household size and income distribution.

To measure the differences between countries on the risk factors, S&P carefully picked up available indices so that they can be embedded in the credit models. The selection of indices was based upon the following features: relevance (capture one or more features of the risk group), transparency (clarity should be

there regarding the construction of the index), refreshed data (data should be updated regularly), credibility (data collection should be done by institutions that are well respected in the market place), and dynamic (critical inputs that get impacted because of abrupt changes and should reflect reality of the market-place). The leading indices that were included in the calculation of 'Country Risk' were:

- **Corruptions Perception Index:** Transparency International ranks 183 countries to know the perception of corruption in the public sector.
- **Doing Business Rankings:** World Bank ranks 183 countries on 10 topics: starting a firm, dealing with construction permits, registering property, access to credit, investor protection, paying taxes, trading across borders, enforcing contracts, resolving bankruptcy & insolvency, and obtaining an electricity supply.
- **Global Competitiveness Index:** World Economic Forum calculates this index by covering over 140 nations. The underlying parameters cut across efficiency of labour markets, institutions, infrastructure quality, technological readiness, business sophistication and innovation.
- **Gini Co-efficient:** Central Intelligence Agency in the USA calculates the 'Gini co-efficient' which tracks the inequality in the distribution of family income in a nation.
- **Human Development Index:** The UNDP calculates HDI across 187 countries to measure the achievements of a nation in terms of health, knowledge, and income.
- **Political Risk Indicator:** To determine the political risk of a country, World Bank considers six risk dimensions: voice & accountability, quality of regulation, rule of law, political stability, effectiveness of government, and control of corruption.

10.7 Risk Management Practices in International Trade

In the age of globalization, the dependency of trade on international markets is becoming increasingly prevalent, more so for organizations in which international trade is part of their revenue generation. Hence, investing in international trade exposes the organization to additional risks. Let us now see the most significant risks in international business.

Since an international trade transaction is always denominated in foreign currency for the exporters (mostly), they are exposed to currency exchange risk. International trade is trade of a particular country with rest of the world. Hence, international trade is exposed to country risk. Country risk is a collection of risks associated with investing in a foreign country. These include sovereign risk, economic risk, political risk, and transfer risk.

The following paragraphs deal with these risks of international trade.

Currency Exchange Rate Risk is a financial risk posed by an exposure to unanticipated changes in exchange rates between the two currencies. The exchange rate between them can fluctuate over a period, resulting into unexpected gains or losses. Currency risk manifests in three modes. They are transaction risk, translation risk, and economic risk, as discussed in the below Table 10.1 format:

Table 10.1: Transaction, Translation and Economic Exposures

Transaction Exposure	Translation Exposure	Economic Exposure
A firm has transaction exposure whenever it has contractual cash flows- receivables and payables. That is whose values are subject to unanticipated changes in exchange rates due to a contract being denominated in a foreign currency.	A firm's translation exposure is limited to which its financial reporting is affected by exchange rate movements. Translation risk involves the revaluation of foreign assets that are held in a foreign currency because foreign currency exchange rates vary over time. This kind of revaluation will create an exchange loss or gain.	Economic exposure is also known as operating exposure. It is the risk of a company's market value changing due to unexpected exchange rate fluctuations. When the currency exchange rate rises or falls, the cost of production and sale price can be affected by such change and it may in turn affect profits.

Source: ICFAI Research Center

As stated above, the exporter/importer is exposed to 'Country Risk' as the trade involves two or more countries. This 'country risk' includes 'political risk' and 'economic risk' that may affect its businesses and result in investment losses.

Political Risk: A business is exposed to political risk since changes in political policies will affect the outcome of the business events. An unfavorable policy will impact the business revenues and profitability. Some of the political risks include: the acts of war, terrorism, trade barriers and military coups.

***Economic Risk*:** It is the risk associated with a country's financial condition and ability to repay its debts. Economic indicator movements in the foreign country like Gross Domestic Product (GDP), purchasing power, inflation, unemployment, etc., are important determinants for economic risk.

10.7.1 ECGC in Risk Management of International Trade

With an objective to provide Export Credit Insurance support to Indian exporters, the Indian Government set up a corporation called Export Risks Insurance Corporation (ERIC) in July 1957.

Subsequently, ERIC was renamed as ECGC in the year 1964 and further into ECGC Limited (Export Credit and Guarantee Corporation Limited - ECGC) in 1983. Subsequently in August 2014, it was renamed as ECGC Ltd.

The following are the objectives of ECGC Ltd.:

- Provides a range of credit risk insurance covers to exporters against the loss in export of goods and services.
- Offers export credit insurance covers to banks and financial institutions. This enables the exporters to get better facilities from them.
- Provides overseas investment insurance to Indian companies investing in joint ventures abroad. It may be in the form of a loan or an equity.

Example: ₹ 4,400 Crore Equity infused in ECGC and ₹ 1,650 Crore in National Export Insurance Account

Due to increased risk in international business, there was a need to strengthen the Export Credit Guarantee Corporation which covered the risks of Indian exporters. In this regard, a capital infusion of ₹ 4,400 crore and permission to get the corporation listed in BSE to raise funds through public were the steps initiated by the GoI. ECGC will be receiving funds to the extent of ₹ 4400 crore from the government over 5 years period (starting from 2021-22) as per the Commerce ministry. ₹ 500 crore would be immediately infused and the listing of ECGC on BSE would take place in 2023 as per the ministry. Once the funds are received towards additional capital, ECGC can expand their coverage to EOU engaged in labour intensive sectors.

Further the National Export Insurance Account (NEAI) will receive ₹ 1650 crore as grant in aid for a period of 5 years and this will support tapping the huge potential of project exports.

Due to non -payment risk by the foreign buyers due to various reasons and factors, ECGC has provided credit insurance service to such exporters. Further, ECGC also has supported banks against the loans provided to exporters to cover such risks.

Source: https://economictimes.indiatimes.com/news/economy/foreign-trade/cabinet-approves-listing-of-ecgc-capital-infusion-of-rs-4400-cr/articleshow/86611365.cms dated 29th September 2021, Date of access- 24th July 2022

[2]Need for export credit insurance

Payments for exports are open to risks even at the best of times. The risks have assumed large proportions due to the far-reaching political and economic changes that are sweeping the world. An outbreak of war or civil war may block or delay payment for goods exported. A coup or an insurrection may also bring about the same result. Economic difficulties or balance of payment problems may lead a country to impose restrictions on either import of certain goods or on transfer of payments for goods imported. In addition, the exporters must face commercial risks of insolvency or protracted default of buyers. The commercial risks of a foreign buyer going bankrupt or losing his/her capacity to pay are aggravated due to the political and economic uncertainties. Export credit insurance is designed to protect exporters from the consequences of the payment risks, both political and commercial, and to enable them to expand their overseas business without fear of loss.

The below discussed schemes of ECGC protect an exporter in the Indian scenario. Similar corporations are there in every country to protect the international trade of their exporters.

10.7.2 Insurance and Guarantees in International Trade: The Coverage of ECGC Ltd.

We now deal with the Indian scenario of international trade.

The ECGC covers international trade in four groups. These products include, insurance policies and guarantees and other facilities like insurance coverage to buyers' credit, exchange risk coverage, as discussed below:

Standard policies: These are issued to exporters to protect them against payment risks involved in export on short-term credit.

Specific policies: These policies are designed to protect Indian firms against payment risks involved in exports on deferred terms of payment. Services rendered to foreign parties. Construction works and turnkey projects undertaken abroad.

Financial guarantees: These are issued to banks in India to protect them from risks of loss involved in their extending financial support to exporters at the post-shipment as well as pre-shipment stages.

Special schemes: Transfer guarantee means a guarantee to protect banks which add confirmation to letters of credit opened by foreign banks. Insurance cover for buyers' credit, lines of credit, overseas investment insurance and exchange fluctuation risk insurance.

[2] Source: www.ecgc.in

Standard Policies

The following are the important features of standard policies:

An exporter whose annual export turnover is more than ₹ 500 lakh is eligible for this ***Standard Policy.*** This is a 'Standard Whole Turnover Policy' wherein all shipments are required to be covered under the policy. The percentage of cover is 90%.

The period of policy will be 12 months and the policy covers Commercial Risk / Buyer Risk/ Political Risk and L/C Opening Bank Risk.

Small Exporter's Policy is basically the 'Standard Policy' issued to small exporters whose anticipated export turnover for the period of one year does not exceed ₹ 5 crore. The maximum liability under the 'Small Exporter's Policy' (SEP) shall be fixed as per laid down guidelines but shall not exceed ₹ 2 crore. The nature of commercial risks and political risks cover is like that of the 'Shipment Comprehensive Risk' (SCR) or 'Standard policy'.

Specific Shipment Policy is another policy that can be availed of by exporters who do not hold any of the 'Standard Policy/Whole turn-over Policy' or by an exporter having a 'Standard Policy', wherein shipments have been excluded from the purview of cover. Exporter can select the contract/shipment to be covered and indicate the type of risk cover needed. The policy becomes valid for shipment(s) made from the date of policy issued and up to the last date for shipment under the relevant contract.

Some of the other policies under standard policies /specific policies category are 'Services Policy' – (SRC), 'Export Turnover Policy' – (ETP), 'Exports (Specific Buyers) Policy' (BWP), 'Consignment Exports Policy' (Stockholding Agent) – (CSA); 'Export Credit insurance for Exporter' (ECIE) 'Short Term – Exposure Based; Buyer Exposure Policy' (SBEP); 'IT-Enabled Services Policy-Single Customer' (SITES); 'Software Project Policy' (SPP), ECIE – 'Medium & Long Term; Construction Works Policy' – (CWP); 'Specific Policy for Supply Contract'. Each product has its specific purpose for the target group. We are not going into details of all these products.

In addition to above, in India, the ECGC also provides certain types of guarantees in international trade as discussed below.

Export Credit Guarantee for Banks

Timely and adequate credit facilities at the pre-shipment stage are important for exporters to realize their full export potential. Exporters may not, however, be easily able to obtain such facilities from their bankers for varied reasons. For e.g. the exporter may be relatively new to export business, the extent of facilities needed by him/her may be out of proportion to the equity of the firms or the value of collateral offered by the exporter may be inadequate. The 'Packing Credit

Guarantee' of ECGC (Formerly Export Credit Guarantee Corporation of India Ltd.) helps the exporter to get better and adequate facilities from their bankers. The guarantees assure the banks that, in the event of an exporter failing to fulfil his liabilities to the bank, the ECGC would make good a major portion of the bank's loss. The bank is required to be co-insurer to the extent of the remaining loss.

Any loan sanctioned to an exporter for the manufacture, processing, purchasing, or packing of goods meant for export against a firm order or 'Letter of Credit' qualifies for 'Packing Credit Guarantee'. Pre-shipment advances are given by banks to the parties who enter into contracts for export of services or for construction works abroad. These are given to meet the preliminary expenses. Such contracts are also qualified for cover under the 'Guarantee'. The requirement of lodgment of 'Letter of Credit' or export order for granting packing credit advances is waived if the bank grants such advances in terms of the instructions of the Reserve Bank of India in that respect.

Individual Packing Credit

Any bank or a financial institution authorized to deal in foreign exchange can obtain the individual 'Packing Credit Cover' for each of its exporter clients who is classified as a 'Standard Asset' and whose CR is acceptable to ECGC and the coverage will be for 12 months. The cover will be 66.66%.

Individual Post – Shipment credit

Any bank / financial institution provides post-shipment finance to the exporter by way of purchase, negotiation, or discount of export bills after the shipment has been affected pertaining to a project. There might be delays in the project completion by the exporter. The individual cover will cover protracted default or insolvency of the exporter-client for a period of 12 months and the percentage of cover will be 75%.

Banks Whole Turnover Packing Credit Guarantee

A bank or a financial institution dealing in foreign exchange is eligible to obtain this 'Whole-Turnover Cover' for all its accounts. The period will be 12 months covering all packing credit advances as per RBI guidelines. The protection is available against losses that may be incurred in extending packing credit advances due to protracted default or insolvency of the exporter-client. For banks taking the cover for the first time, it is 75% up to certain limit and 65% beyond the said limit. (For others varies from 55% to 75% depending on claim premium ratio of the bank). For 'Small Scale Exporters' (SSE)/ 'Small Scale Industrial Units' (SSI), it is 90%.

Banks Whole Turnover Post Shipment Guarantee

A bank or a financial institution dealing with foreign exchange is qualified to obtain this 'Whole-turnover Cover' for all its accounts. The cover is available for a period of 12 months covering all post-shipment advances granted to exporters by way of purchase/discount/negotiation of export documents or advances granted against the export bills sent for collection, as per Reserve bank of India (RBI) guidelines. The protection is available against losses that may be incurred in extending post-shipment advances due to protracted default or insolvency of the exporter-client. The coverage varies from 90% to 95% in respect of exporters who are policyholders of ECGC and 50% to 75% for non-policyholders, depending upon the claim premium ratio of the bank.

We covered some of the important policies either by the exporter or his/her banker. Apart from the above sited products, ECGC has other products also.

Export Credit Insurance for Banks Surety Cover (ECIB-SC)

Exporters are often called upon to execute bonds duly guaranteed by an Indian bank at various stages of export business. An exporter who wants to quote for a foreign tender may have to submit a bank guarantee for the bid bond. If he/she wins the contract, he/she may have to furnish bank guarantee to foreign buyers to ensure due performance or against advance payment or in lieu of retention money. Further, for obtaining import licences for raw materials or capital goods, exporters may have to execute an undertaking to export goods of a specified value within a stipulated time, duly supported by bank guarantees. Bank guarantees are also furnished by exporters to the DGFT, Customs, Central Excise, or Sales tax authorities for clearing goods without payment of duty or for exemption from tax for goods procured for export. Exporters also submit guarantees in support of the export obligations to The 'State Trading Corporation of India' (SCI), 'Commodity Boards' (CBs), 'The Minerals and Metals Trading Corporation of India' (MMTC), 'Export Promotion Councils' (EPCs), or recognized export houses.

The export credit insurance for banks, surety cover, provides guarantees to export community. The ECIB (SC) which is indemnity to the bank is issued to protect the bank against losses that it may suffer because of guarantees given by it on behalf of the exporters. This protection is to encourage banks to give guarantees on a liberal basis for export purposes.

Eligibility: Insurance Cover under ECIB (SC) can be considered to those banks whose exporter clients have standard asset classification with an acceptable credit rating weightage/marks/score of 50% and above. The banks intending to seek ECIB (SC) cover for an exporter client should have sanctioned certain working capital limit facilities for export in favor of their exporter client.

***Eligible Bank Guarantees for Cover*:** The kinds of guarantees that are eligible for our indemnity under short-term are:

(a) Bid Bond Guarantee: The Bid Bond Guarantee is issued by a bank on behalf of its exporter clients who desire to bid for a foreign tender.

(b) Performance Guarantee: If the exporter wins a contract in the global tender, he may have to submit a bank guarantee for his due performance. In this context, his bank may submit the due performance guarantee to the foreign buyer.

(c) Letters of Credit opened for purchase or import of raw materials in respect of export transactions.

(d) Bank guarantees submitted by exporters to Directorate General of Foreign Trade (DGFT), Customs, and Tax Authorities for the purpose of clearing goods without payment of duty or for exemption from tax for goods obtained for export.

(e) Bank guarantees submitted in support of the export obligations by the exporters to the 'State Trading Corporation of India', commodity boards, the MMTC, export promotion councils, or recognized export houses.

Period of Cover: The validity period of the ECIB (SC) insurance cover shall be the same as the period of the guarantee being covered. However, where the guarantee period is more than one year, insurance cover shall be issued for a period not exceeding twelve months from the date of commencement of ECIB (SC) cover, subject to further extension on completion of twelve months. Banks may seek extension where the validity period of the guarantee covered under the ECIB (SC) cover exceeds the insurance cover period.

Risks covered: Risks covered under the insurance cover are the insolvency and/or protracted default of the exporter to repay his/her debt to the bank which is covered under the ECIB (SC) - cover will be 75%.

Let us see other important aspects in international trade.

As stated above, the transactions in international trade are exposed to 'currency risk' and 'country risk'. Added to this, international trade transactions are faced with 'transit risk'.

The following paragraphs highlight the issues involved in 'transit risk':

10.7.3 Transit Risk: Marine Insurance, Institute Cargo Clauses

'Transit Risk' means the risk of goods getting damaged while they are in transit. 'Goods in transit' mean the transportation of goods from the place of exporter to the place of importer.

The 'transit risk' should be addressed appropriately otherwise it may result into heavy replacement cost or 'performance risk'.

Marine insurance and the institute cargo clauses are among the prominent ones that addresses 'transit risk'.

The exporter must cover other risks also such as 'currency risk' and 'country risk'. The following paragraphs cover the avenues available to mitigate these risks.

Transit Risk

The exporter sends goods by four different modes of transport – road, rail, air, and water. The exporter must protect the goods sent during the transit also and marine insurance provides insurance coverage to goods in transit and protects the exporter due to any loss or damage that may happen to goods in transit.

Marine Cargo Insurance

Cargo insurance is also called as insurance of goods. It is an insurance to protect the goods that are in transit. It protects from loss, damage or theft that may occur while the goods are in transit. Normally, the goods are insured by the buyer at the time of their storage and continue till they are in transit and ends on their reach to the buyer.

It covers goods in transit carried out in rail, road, air, water, and courier and through registered post parcel.

Owners or bankers of goods in transit/shipment can insure the export and import shipments, goods in transit by rail, sea, road, air or post, goods carried by coastal vessels plying between the various ports within the country.

'Marine insurance' is of two types – 'Ocean Marine Insurance' and 'Inland Marine Insurance'. The former type covers the perils of the sea while the latter type covers the inland risks of the land. The extension of it is explained as marine insurance that is inclusive of cargo insurance and hull insurance. 'Hull insurance' is an insurance of ships (like hull, machinery, etc.).

In India, the Marine Insurance Act 1963 is the requisite statutory Act for 'marine insurance'. Some of the important clauses of 'marine insurance' are discussed below:

Institute Cargo Clauses (ICC): The 'Institute Cargo Clauses' are formulated by the Institute of London Underwriters, United Kingdom. This is a cover provided under the 'marine insurance'. This got a wide coverage because of the dominant position of the United Kingdom in 'marine insurance'. Normally, ICC is prevalent for specific commodities like coal, frozen meat, timber, etc. However, the ICC for general cargo are in the form of A, B, and C risks. These are in connection with the supplementary clauses for war, strikes, seizure, etc. This was introduced in January 1st, 1982.

ICC (A): This clause covers all risks concerning loss or damage to cargo. It also covers 'Both to Blame' clause wherein a general average and liability is exhibited. However, the availability of too many exclusions under 'Both to Blame' exhibits that all types of risks are not included hereunder.

ICC (B): This is like ICC (A). But it covers loss or damage to the insured goods or factors that can be reasonably attributable.

The following are the factors that tend to result into loss or damage to the insured goods:

- Entry of lake, river or sea water into craft, vessel, container lift van, place of storage or conveyance
- Total loss of any package lost overboard or dropped while unloading from, or loading on to the craft or vessel
- Washing or jettison overboard
- General average sacrifice

The following are the factors that can be reasonably attributable:

a. Earthquake volcanic eruption or lightning
b. Fire or explosion
c. Discharge of cargo at port or distress
d. Vessel or craft being stranded, grounded, sunk, or capsized
e. Overturning or derailment of land conveyance
f. Collusion or contact of vessel craft or conveyance with any external object other than water.

ICC (C): The coverage is similar as in the case of ICC (B) with some exclusions. The exclusions are:

a. Earthquake
b. Volcanic eruption or lightning
c. Total loss of any package
d. Entry of sea, lake, or river water

The following are the details on land cargo insurance:

The insurance that covers all land transportations is 'Land Cargo Insurance'. It covers trucks and other small utility vehicles. The coverage includes collusion damages, theft, etc. In this case, the insurance coverage is mostly domestic in nature.

Under cargo insurance, there exist a few policies. They are discussed here:

- **Open Cover Cargo Policies**

  In case, the insurer opts for insurance coverage for more than one consignment, then he/she can do so by opting open cover cargo policies.

  In this category, there exist two segmentations – Renewable Policy and Permanent Policy.

  Renewable Policy is a policy that is applied when a specific value requires renewal after its policy expiration. Most of the single voyages fall under this segmentation.

  Unlike renewable policy, permanent policy can be taken for a specific period covering countless voyages that take place during that period.

- **Specific Cargo Policies**

  When an insurer approaches for insurance of a consignment, then it falls under this policy, i.e., Specific Cargo Policy. This is also termed as 'Voyage Policy' because of its coverage of shipments alone.

- **Contingency Insurance Policies**

  When insurance is opted to protect the goods in transit from unforeseen untoward happening, then it falls under the Contingency Insurance Policy. This is to overcome a contingency situation where 'goods in transit' get damaged or the like happens and the seller refuses to accept such goods.

  Cargo insurance got wide coverage but with certain limitations. The coverage includes damages arising out of inappropriate packing, infestation, customs rejection, employee's dishonesty, cargo abandonment, earthquake, fire, theft, derailment, sinking, heavy weather, collusion etc.

10.8 ECGC: Coverage of Political and Commercial Risks, ECGC Policies and Guarantees

We are aware that international trade transactions are exposed to various risks.

The following paragraphs deal with the institutional support available to Indian exporters /importers and banking system.

The international trade transactions involve payments in foreign currency to one of the parties. Payments for exports are open to risks even at the best of times. The risks can be of varied nature like commercial risks, political risks, risks arising out of foreign laws, cargo risks, credit risks and foreign exchange fluctuations risks.

Among all of these, we will discuss commercial and political risks because its coverage is very much wider and mostly unpredictable when compared to other risks.

Political Risk

The 'political risk' arises out of change happening in the political scenario in the importing or exporting country or in both the countries. The following are some of the factors that provoke 'political risk':

- A change of government in the country. This becomes a risk when the predecessor and successor political parties differ. For example, imposition of restrictions on import remittances by any government policy may result either into blocking or delaying the payment to the exporter.
- Imposing new licensing restrictions or cancellation of a valid licence regarding imports or exports in the country.
- Coups, civil wars, and rebellions.
- Wars between or among the countries.
- Capture of cargo by enemies during the war.

The risk spectrum can be reduced notably through judicious selection of countries to which goods can be exported. Countries can look to insurance companies for coverage of some of the political risks. This can be done by paying predetermined premium to them. ECGC is a good example for such insurance companies.

Commercial Risk

In international market, competitors influence the demand and supply conditions. The entry of new competitors further weakens the market. There exists a scope for the domestic production to bring down the commodity prices, thereby influencing its demand and supply. The introduction of substitutes to capture the market also weakens the exporter's share in the market. All these exhibit the presence of 'commercial risks' in international trade.

The factors that amount to 'commercial risks' are:

- Lack of awareness of foreign markets
- Lack of adaptability of export products to the changing conditions in global markets
- Longer transit time. This may be due to:
    - Possibility of facing situations not anticipated before 'the export' like exporter's insolvency, exporter's protracted default to pay for the goods accepted by him/her, exporter's failure to accept the goods.

      Commercial risks can be minimized with the application of forecasting techniques. However, a careful watch on the changing business conditions in the concerned country is necessary. An awareness of the changes taking place in the world economy serves as a shield to minimize the commercial risks. Lastly, the exporter should be prepared to face any eventuality and his/her wisdom lies in forecasting and responding quickly at the appropriate time.

10.8.1 Credit Risk in International Trade

After the goods are sold on credit, the risk arising in realizing such sale proceeds is termed as 'credit risk'. 'Credit risk' in international trade may be in the form of:

- Inability of the importer to pay the sale proceeds on the due date.
- Non-reach of the exporter, occurring even when the importer makes payment within due date. This happens when a changed situation in the exporter's country creates a hurdle for the payment to reach the exporter.
- Outbreak of war, civil war, coup, or an insurrection which may delay or block the release of payment for goods exported.

Whatever may be the reason, the ultimate sufferer is the exporter because receipt of his/her sale proceeds gets delayed or blocked which is an alarming situation in international business.

Credit risk insurance is being resorted to either to overcome or to lessen the credit risk - both by exporters and banks that finance the exporters.

In India, we have ECGC to provide an insurance cover for such credit risks.

Example: Increase in trade defaults due to pandemic

There had been a significant impact on international trade due to COVID-19 pandemic. There had been a 10% drop in terms of value in 2020, 8% fall in goods trade and 19% in services trade.

According to the ICC Trade Register, the default rates in trade and supply chain finance across the majority of asset classes were as follows.

- Import L/Cs: Default rate increased from 0.40% in 2019 to 0.59% in 2020 (+0.19 ppts.)
- Export L/Cs: Default rate increased from 0.04% in 2019 to 0.05% in 2020 (+0.01 ppts.)
- Loans for Import/Export: Default rate increased from 0.74% in 2019 to 0.94% in 2020 (+0.20 ppts.)
- Performance Guarantees: Default rate decreased from 0.56% in 2019 to 0.44% in 2020

  (-0.12 ppts.)

Credit risk insurance offered by ECGC could mitigate to certain extent on defaults in International trade for Indian exporters.

Source- https://iccwbo.org/media-wall/news-speeches/icc-trade-register-trade-defaults-rise-amid-pandemic-but-performance-remains-consistent-with-long-term-projections/ dated 28.09.2021, Date of access- 24.07.22

10.9 Funding Aspects through International Markets – ECB, ADR, GDR and IDR

International trade requires both short-term and long-term funding, if capital expenditure transactions are involved. The business entity involved in international trade can get funding (both short-term/ long-term) from financial institutions / banks. The business entity can mobilize funds from domestic capital markets also by issuing debt instruments (bonds/debentures or any hybrid debt instrument) or by issuing equity shares. The business entity can mop up funds from overseas markets also, through various instruments, but within the regulatory framework of the country. Various avenues like 'External Commercial Borrowings', 'American Depository Receipt', 'Global Depository Receipt' etc. which are available to business entities to mobilize funds from the Indian perspective are discussed in the following paragraphs.

[3]External Commercial Borrowings (ECB)

ECB (External Commercial Borrowing) refers to commercial loans. These loans can be in the form of bank loans, buyers' credit, suppliers' credit, securitized instruments, for example - floating rate notes and fixed rate bonds, non-convertible, optionally convertible or partially convertible preference shares, availed of, from non-resident lenders with a minimum average maturity of three (3) years.

External and Commercial Borrowings (ECB) can be under two routes. They are Automatic Route and Approval Route.

The automatic route limit stands increased from USD 750 million or equivalent to USD 1.5 billion or equivalent. This relaxation is available for ECBs to be raised till December 31, 2022. Further, in case of FCY denominated ECB raised from direct foreign equity holder, ECB liability-equity ratio for ECB raised under the automatic route cannot exceed 7:1.

The following kinds of proposals for ECBs are covered under the 'Automatic Route'-

- Corporates, including those in the hospital, software, hotel sectors, registered under the Companies Act, 2013.
- Non-Banking Finance Companies (NBFCs) – Infrastructure Finance Companies (IFCs), Asset Finance companies (AFCs).
- Small Industries Development Bank of India (SIDBI) excluding other financial intermediaries, such as banks, Financial Institutions (FIs), Housing Finance Companies (HFCs) and Non-Banking Financial Companies

[3] External Commercial Borrowings (ECB) and Trade Credits (TC) Policy – Changes due to LIBOR transition RBI/2021-22/135; A.P. (DIR Series) Circular No. 19 December 08, 2021 RBI/FED/2018-19/67 FED Master Direction No.5/2018-19 March 26, 2019 (Updated as on September 30, 2022)

(NBFCs), other than those specifically allowed by the Reserve Bank of India, are eligible to raise ECB. However, individuals, trusts (other than those engaged in micro-finance activities) and non-profit making organizations are not eligible to raise ECB.

Borrowers can raise ECBs from internationally recognized sources, like (a) international banks (b) international capital markets (c) multilateral financial institutions (i.e., IFC, ADB, CDC, etc.) / regional financial institutions and government-owned development financial institutions (d) export credit agencies (e) suppliers of equipment (f) foreign collaborators and (g) foreign equity holders, other than erstwhile 'Overseas Corporate Bodies' (OCBs).

Example: ECB by Indian companies up by 19 per cent

As per Reserve Bank of India (RBI), the external commercial borrowings by Indian companies increased from $ 19.53 billion to $23.28 billion in the first three quarters of the FY 2021-22 as against $19.53 billion during April-December, 2020. This had exceeded the full year's level witnessed in FY21.

According to RBI data, the purpose of the ECB's by Indian Inc., were:

- On-lending/sub-lending- $6.72 billion
- Refinancing of rupee loans $3.70 billion
- Modernisation $1.67 billion
- Capital goods Import $1.54 billion
- Rupee expenditure $976 million.

Further during the first fortnight of January 2022, domestic companies raised over $6 billion and the rush for ECB was mostly due to low-cost overseas funding and that the current uptick in overseas borrowing was purely on account of low interest rate advantage.

There was a great appetite for ECBs which were commercial loans such as bank loans, buyers' credit, suppliers' credit, securitized instruments by Indian companies.

Source: https://affairscloud.com/indian-companys-ecb-jumps-19-percent-to-usd-23-28-billion-in-9m-fy22/ dated 5th February 2022, date of access- 1st December 2022

Minimum Requirements for Foreign Equity Holder

Foreign Equity Holder: It means (a) direct foreign equity holder with minimum 25% direct equity holding in the borrowing entity, (b) indirect equity holder with minimum indirect equity holding of 51%, or (c) group company with common overseas parent.

Minimum Average Maturity period for ECB will be 3 years. Call and put options, if any, shall not be exercisable prior to completion of minimum average maturity.

However, for the specific categories mentioned below, the MAMP will be as prescribed therein:

S.No.	Category	MAMP
(a)	ECB raised by manufacturing companies up to USD 50 million or its equivalent per financial year.	1 year
(b)	ECB raised from foreign equity holder for working capital purposes, general corporate purposes or for repayment of Rupee loans	5 years
(c)	ECB raised for (i) working capital purposes or general corporate purposes (ii) on-lending by NBFCs for working capital purposes or general corporate purposes	10 years
(d)	ECB raised for (i) repayment of Rupee loans availed domestically for capital expenditure (ii) on-lending by NBFCs for the same purpose	7 years
(e)	ECB raised for (i) repayment of Rupee loans availed domestically for purposes other than capital expenditure (ii) on-lending by NBFCs for the same purpose	10 years

Bench mark rate & **All-in Cost Ceiling**

Benchmark Rate for FCY ECBs and TCs: with change in benchmark rates from LIBOR related to ARRs benchmark rate in case of FCY ECB/TC shall refer to any widely accepted interbank rate or alternative reference rate (ARR) of 6-month tenor, applicable to the currency of borrowing.

All-in-cost ceiling for new ECBs:

It includes rate of interest, other fees, expenses, charges, guarantee fees, ECA charges, whether paid in foreign currency or INR but will not include commitment fees and withholding tax payable in INR. In the case of fixed rate loans, the swap cost plus spread should not be more than the floating rate plus the applicable spread. Additionally, for FCCBs, the issue related expenses should not exceed 4 per cent of the issue size and in case of private placement; these expenses should not exceed 2 per cent of the issue size, etc. Under TC Framework, all-in-cost shall include rate of interest, other fees, expenses, charges, guarantee fees whether paid in foreign currency or INR. Withholding tax payable in INR shall not be a part of all-in-cost. Various components of all-in-cost have to be paid by the borrower without taking recourse to the drawdown of ECB/TC, i.e., ECB/TC proceeds cannot be used for payment of interest/charges.

For existing ECBs linked to LIBOR whose benchmarks are changed to ARR. Benchmark Rate plus **550 bps** spread: Benchmark rate plus **500 bps** spread: For new ECBs, for INR denominated ECBs Benchmark rate plus 450 bps spread. All-in-cost ceiling has been temporarily increased by 100 bps for ECBs raised till December 31, 2022. The enhanced all-in-cost ceiling shall be available only to eligible borrowers of investment grade rating from Indian Credit Rating Agencies (CRAs). Other eligible borrowers may raise ECB within the existing all-in-cost ceiling as hitherto.

One Time Adjustment in all-in-cost ceiling for existing ECBs/ TCs: To enable smooth transition of existing ECBs/ TCs linked to LIBOR whose benchmarks are changed to ARRs, the all-in cost ceiling for such ECBs/ TCs has been revised upwards by 100 basis points to 550 bps and 350 bps, respectively, over the ARR. AD Category-I banks must ensure that any such revision in ceiling is only on account of transition from LIBOR to alternative benchmarks.

Other costs: Prepayment charge/ Penal interest, if any, for default or breach of cov **Benchmark Rate for FCY ECBs and TCs:** with change in benchmark rates from LIBOR related to ARRs benchmark rate in case of FCY ECB/TC shall refer to any widely accepted interbank rate or alternative reference rate (ARR) of 6-month tenor, applicable to the currency of borrowing.

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Other costs: Prepayment charge/ Penal interest, if any, for default or breach of covenants, should not be more than 2 per cent over and above the contracted rate of interest on the outstanding principal amount and will be outside the all-in-cost ceiling.

Covenants, should not be more than 2 per cent over and above the contracted rate of interest on the outstanding principal amount and will be outside the all-in-cost ceiling.

ECB can be raised for investments like import of capital goods (as classified by DGFT in the foreign trade policy), new projects, modernization/expansion of existing production units in real sector – industrial sector including Small and Medium Enterprises (SME), infrastructure sector and specified service sectors, viz. hospital, software and hotel, and miscellaneous services sectors. Other than the purposes specified herein above, the borrowings shall not be utilized for any other purpose.

ECBs can be raised as:

- Loans, e.g. bank loans, loans from equity holder, etc.
- Capital market instruments, e.g., floating rate notes / fixed rate bonds / securitized instruments.
    - These instruments can be: Non-convertible, optionally convertible or partially convertible preference shares.
- FCCB - a 'Foreign Currency Convertible Bond' (FCCB), is a type of corporate bond issued by an Indian company in an overseas market in a currency different from that of the issuer.
- Buyers' credit / suppliers' credit.
- Financial lease.

The interested party may note that overseas borrowings must follow the applicable ECB guidelines / provisions contained in the Foreign Exchange Management (Borrowing or Lending in Foreign Exchange) Regulations, 2000.

ECB can be raised in Indian Rupees (INR)($) and / or any convertible currency. Any entity raising INR denominated ECB is not permitted to convert the liability into foreign currency liability assuming foreign currency risk by either entering into a derivative contract or otherwise.

A foreign equity holder holding minimum 25% direct equity holding in the borrowing entity or minimum indirect equity holding of 51% in the borrowing entity is a recognized lender. At the time of contracting, all ECB guidelines including those related to minimum equity holding, are to be fulfilled during the whole tenure of the ECB.

End Use of ECB Proceeds:

The negative list, for which the ECB proceeds cannot be utilised, would include the following: a) Real estate activities b) Investment in capital market) Equity investment. d) Working capital purposes, except in case of ECB otherwise mentioned e) General corporate purposes, except in case of ECB otherwise mentioned) Repayment of Rupee loans, except in case of ECB mentioned in the guidelines g) On-lending to entities for the above activities, except in case of ECB raised by NBFCs.

Depository Receipts

'Depository Receipts' are another mode of funding the organizations in international markets.

A 'Depository Receipt' is basically a negotiable certificate denominated in US dollars. It represents a non-US company publicly trading in local currency (say Indian rupee) equity shares. However, in theory, DR can also engage in debt instruments trade.

DRs are of varied types like

- **Global Depository Receipts (GDRs)**

  GDR is a 'depository receipt' or 'negotiable certificate' issued in US dollars. It is issued by an overseas depository bank outside India. Some of the important points to understand hereunder are:

  - It is issued to the non-resident investors against the issue of FCCBs or shares of the issuer company.
  - It is traded freely in the foreign markets on par with other securities.
  - It can also be issued in the form of private placement.
  - For issue of GDRs, prior permission of the Ministry of Finance, Government of India, is required.

  The introduction of ECBs and GDRs in India resulted in a substantial flow of foreign investment into India. The Indian stocks are listed in foreign stock exchanges that further added to this substantial flow.

  GDRs are listed either in London Stock Exchange or Luxemburg Stock Exchange. The list of companies that issue Global Deposit Receipts is quite lengthy.

Some of the companies are: Axis Bank, Bajaj Holdings & Investments, Crompton Greaves, Federal Bank, Gail India, Hexaware Technologies, L&T, State Bank of India, Grasim Industries etc.

- **American Depository Receipts (ADRs)**

  ADR is a depository receipt or negotiable certificate issued in US dollars. It is issued in United States of America (USA) by a depository bank representing ownership in non-US securities.

  An American Depository Receipt (ADR) is a negotiable instrument issued by a depository bank that evidences ownership of shares in a corporation organized outside the United States of America (USA). It represents a specific number of underlying ordinary shares in the non-U.S. company, on deposit with a custodian in the relevant home market.

  American Depository Receipt (ADR) programs, or "facilities," are typically classified into three levels:

  - When an ADR program is established based on existing ordinary shares and traded in the United States OTC market, then it is identified as a "Level I" ADR facility.
  - When such a program is listed on one of the aforementioned United States stock exchanges, with no corresponding offering of newly issued shares or ADRs, then it is identified as a "Level II" ADR facility.
  - When an ADR program facilitates a capital raising, accommodating newly issued ordinary shares and is listed on a United States National Stock Exchange, then it is identified as a "Level III" ADR facility.

Some of the important points to understand hereunder are:

- ADRs are issued in compliance with Securities and Exchange Commission guidelines/rules.
- They are exposed to greater responsibility, costs and liability, disclosures, etc. Thus, Indian companies prefer GDRs to ADRs.
- They can be listed on NASDAQ, New York Stock Exchange, and American Stock Exchange (US).

The introduction of ADRs provided non-US companies to trade in US capital markets – world's largest domestic investor base.

Some of the ADRs listed in the US stock exchanges are Wipro, Infosys, Tata Motors, HDFC Bank, Dr. Reddy's Lab, ICICI Bank, etc.

- **Indian Depository Receipts**

  'Indian Depository Receipts' (IDR) is a rupee-denominated instrument created by a local custodian of securities that is registered with the SEBI.

These receipts are issued against the underlying equity shares of a foreign issuing company that intends to tap funds from the Indian capital markets. Indian investors can participate in the equity of foreign companies as these IDRs are listed and traded on Indian stock exchanges. The minimum size of an IDR issue shall be at least ₹ 50 crore. The foreign issuing company needs to file the draft prospectus with SEBI while complying with the requirements of SEBI (ICDR) Regulations, 2009. After incorporating any specific changes as mentioned by the SEBI, the final prospectus should be filed with Registrar of Companies (RoC). The foreign issuer, just like any other Indian company, is obligated to obtain in-principle listing permission from all the recognized stock exchanges in which the issuer proposes to get its IDRs listed. IDRs should not be considered as IPOs (Initial Public Offering) as they are made by foreign companies that are already listed in their home country. For example: Standard Chartered Bank whose shares quoted in BSE/NSE.

Financial Intermediaries in IDRs: Intermediaries involved in an IDR are overseas custodian bank, domestic depository, and a SEBI-registered merchant banker.

- Overseas Custodian Bank

  "Overseas Custodian Bank" means a banking company which is established in a country outside India. It has a place of business in India and acts as custodian for the equity shares of issuing company. It acts against which IDRs are proposed to be issued after having obtained permission from the Ministry of Finance for doing such business in India. Domestic Depository - a custodian of securities, registered with SEBI and authorized by the issuing company to issue IDRs. It must collect dividend and other corporate benefits from the IDR issuer and distribute the same to the holders in proportion to their holdings.
- Merchant Banker is registered with SEBI who is responsible for due diligence. It is through whom the draft prospectus for issuance of the IDR and due diligence certificate is filed with SEBI by the issuer company.

Eligibility Criteria for IDR Issuers: The foreign company that intends to make an IDR issue shall have:

- Minimum $ 50 million of pre-issue paid-up capital and free reserves;
- Average minimum market capitalization in the preceding three years in its home country of US$ 100 million;
- Three years history of a continuous trading record on a stock exchange in the preceding years;
- Minimum three years history of distributable profits out of immediately preceding five years;

- Listed in its home country and not been prohibited to issue securities by any regulatory authority;
- Established track record with respect to compliance with securities market regulations in its home country.

Eligibility Criteria for IDR Investors: Any resident Indian as defined under Foreign Exchange Management Act (FEMA) is eligible to invest in an IDR issue provided that:

- The Application amount in an IDR issue shall be at least ₹ 20,000;
- The Indian companies investing in IDRs shall not exceed the investment limits, if any, prescribed for them under applicable laws;
- In every issue of IDR:
    - Minimum 50% of the IDRs issued should be subscribed by QIBs (Qualified Institutional Buyers);
    - The residual balance shall be available for subscription by non--institutional and retail investors.

Fungibility: The resident Indian investor having bought the IDRs has the option to trade the same either in India or can request for redemption of the IDRs to the issuer company. However, such conversion/redemption of IDRs into the underlying equity shares is possible only after the completion of one year from the date of the listing of the IDRs, subject to the compliance of the related provisions of FEMA and regulations issued there under by RBI & SEBI in this regard. The time period specified by the issuer company during which IDR holders can apply for conversion/redemption of IDRs into underlying equity shares, is known as the 'fungibility window'.

Standard Chartered IDR:

Standard Chartered Bank had operations in India since 1858 when the British took political control of the country. The company is listed in London and Hong Kong stock exchanges. A foreign company cannot issue shares in India as per the SEBI norms. But a foreign company can issue IDRs which should be listed on a stock exchange that has a national footprint in India. Given the track record of the Standard Chartered Bank in India, the company chose to convert a portion of the shares listed abroad into IDRs so that Indian investors can participate and share the success story of a foreign bank. During June 2010, the bank had issued 240 million IDRs and became the first global player to have local listing in India. As per the terms of the offer, each share was equivalent to 10 IDRs. After getting permission from SEBI, holders of IDRs may choose to convert them into shares and trade them on London and Hong Kong exchanges. They would also be eligible for voting rights after it gets converted into shares but till then the Indian investor would have all other rights such as dividends.

At the time of issue in June 2010, only 3% was subscribed by the public and around 62% was held by the Foreign Institutional Investors (FIIs). By March 2017, out of the 240 million IDRs, only 12.40 million were traded in India. Around 70% of this is held by the Indian public and 12% by FIIs. The reasons are not far to seek as the SEBI permitted conversion of IDRs in March 2013 into shares but placed a ceiling of 25% per annum. By March 2017, nearly 95% of the IDRs got extinguished and got converted into shares for the purpose of trading outside India. QIBs and other corporate entities that had a major chunk of Standard Chartered IDRs opted for conversion because of complexities associated with IDRs as well as the illiquid market conditions for the lone IDR listing in India. Figure 10.1 depicted the movement of the IDR till it was delisted on 19th June 2020.

Figure 10.1: IDR Price Chart

https://www.moneycontrol.com/india/stockpricequote/banks-private-sector/standardcharteredplc/SCB01

[4]Standard Chartered PLC (the Group) announced on 9 March 2020 that it intended to terminate its Indian Depository Receipt (IDR) programme and it was completed the termination of the IDR programme in June 2020, and accordingly the IDRs have been delisted from BSE Limited and the National Stock Exchange of India Limited, in India.

As at 19 June 2020, there were around 7.5 million IDRs outstanding from the original 240 million IDRs that were issued in 2010. The approximately 750,000 underlying Group ordinary shares that these IDRs represented were sold on the London Stock Exchange on 22 June 2020 and the net sale proceeds distributed to the relevant IDR holders.

[4] https://www.sc.com/en/media/press-release/completion-of-delisting-of-indian-depository-receipts/

Check Your Progress - 2

6. Which of the following exposures cannot be managed using hedging techniques due to the unpredictability of changes in the cash flows?
   a. Translation exposure
   b. Transaction exposure
   c. Accounting exposure
   d. Operating exposure
   e. Economic exposure
7. What is a strategy when the pre-depreciation level of domestic currency is maintained by reducing the foreign currency price to increase its market share?
   a. Market segmentation
   b. Profit margin
   c. Price skimming
   d. Penetration pricing
   e. Pricing strategy
8. What is a strategic activity that enables an exporting firm to generate profits on such expenditures in which the devaluation of the monetary value of domestic currency improves the competitive position by increasing revenues?
   a. Product selection
   b. Pricing
   c. Promotion
   d. Placement
   e. Production
9. Proper choice of input mix in production may protect the profits of the firm at the time of depleting revenues by reducing its costs. Which of the following is not a considerate of right input mix strategy?
   a. Mounting pressure on profits of exporting firm caused by appreciating domestic currency can be encountered with inputs bought from international markets.
   b. Through intermediate inputs, a firm can defend its profits by sourcing inputs from producers in the country where the final product is sold.
   c. From a depreciating domestic currency market, a firm can take advantage of sourcing inputs from domestic market.

d. The final decision on right inputs mix strategy is based on the comparative costs involved in between technology flexibility and rigidity in existing input mix.

e. Flexibility in shifting production capabilities from one country to another lead to less economic exposure than having production facilities in only one country.

10. What is a method that eliminates an undesirable financial risk, arising out of firm's normal operating procedures?

a. Natural hedging

b. Forward hedging

c. Hedging through futures

d. Option hedging

e. Hedging through money markets

10.10 Summary

- When an organization is exposed to foreign exchange transactions, they are exposed to foreign exchange risk.
- The foreign exchange risk manifests in three modes ---- transaction risk, translation risk and operational risk. Managing foreign exchange risk is an important function of the organization. There are different methods to manage the risk.
- The most suitable methods are selected based upon the firm's expectations regarding the future movements of exchange rates and the degree of risk that is acceptable to the management.
- Management of exposure involves taking a position in the forex and /or the money market cancelling the outstanding position.
- Exposure netting is a variant that is offset by creating an opposite exposure in the same currency or in a currency which moves in tandem with the currency of original exposure.
- Currency invoicing is also a hedging tool that involves invoicing exports in hard currency and imports in soft currency, thus enabling the transacted parties to share the exposure risks.
- Sourcing is a specific hedging technique that engages a firm to buy raw materials in the same currency in which it sells its products, resulting in exposure netting.

- While using these hedging techniques to hedge transaction exposure, it needs to be remembered that their use may not necessarily result in hedging the economic exposure arising out of the transactions being hedged.
- Management of economic exposures is attained through stabilization of cash flows to which the values of the firm would be affected by unexpected changes in exchange rates.
- The marketing manager of a firm can make use of market strategies such as market selection, pricing strategy, promotional strategy and product strategy in order to evaluate the effect of changes in exchange rates to manage the exposures.
- Similarly, the production strategies such as input mix, plant location, product sourcing and raising productivity can be effectively utilized to take long-term decisions to protect the firm from harmful effects of an unfavorable exchange rate movement, or to help it take advantage of favorable movements.
- Financial management strategies can also assist the firms to control the damage caused by unfavorable exchange rate movements by implementing hedging strategies that help in reduction of debt-servicing costs.
- It is imperative that hedging activities should be undertaken only when the costs of leaving the firm exposed to exchange rate movements are expected to be large.
- There are several ways in which 'transaction' and 'translation exposures' can be managed. Though there is no perfect method, each one has its own features, advantages and disadvantages which make it suitable for particular situations.
- The selection of a suitable method eventually depends upon the firm's expectations regarding the future movement of exchange rates and the degree of risk that is acceptable to the management.
- The strategies for managing operating exposure would prove to be effective if the exchange rate movements and their effects on operating profits could be predicted. But managing exposure is all about managing unpredictable exchange rate movements and their unpredictable effects on the operating profits of a company.
- Advance planning by the firm involves a study of the possible exchange rate scenarios and the probability that could be attached to them. It further estimates the effect of each scenario on the firm's operating profits and plans the possible corrective actions (in terms of the production or marketing strategies) that would need to be taken in such scenarios.
- If the firm follows a methodical approach it can manage its operating exposure.

- The decisions that are required to be taken for managing operating exposure do not necessarily fall within the purview of the treasurer. It is the top management which is more involved and responsible for managing the operating exposure.
- Implementing a policy for hedging operating exposure is extremely difficult in practice. It is because of the continuously changing exchange rates and due to the difficulty in predicting their effect on a firm's operating profits. It is also due to the costs involved in making the analysis that goes in as an input to the decision-making process.
- Implementation of policies would incur higher costs and difficulties which sometimes make the expected returns from these activities very small.
- It is imperative that these activities should be undertaken only when the costs of leaving the firm exposed to exchange rate movements are expected to be large.
- Clear Guidelines for issuance of IDRs, GDRs, and ADRs are given.
- Standard Chartered IDR was delisted in June 2020
- ECB guidelines are changed from time to time. In 2022 the automatic route limit stood at USD 1.5 billion or equivalent.

10.11 Glossary

Exposure Netting refers to offsetting exposure so created in one currency with exposure in the same or another currency.

Functional Currency is the country's currency where the foreign operation of a multi-national company is located.

Hedge means to reduce or control risk. Thus, it is a two-step process that determines the cash position due to changes in price levels, encountered by changes in the values of a future position.

Hedging Technique is a way of approach to reduce or offset a possible loss.

Lagging refers to delaying or postponing payables or receivables. It is used as a technique for managing exchange exposure.

Leading is to bring forward or advancing receivables or payables, for the purpose of managing exchange exposure.

Market Segmentation is the process of dividing a market of potential customers into groups, or segments, based on different characteristics.

Netting is matching receivables with payables in the same currency to arrive at the net amount.

Penetration Pricing is a strategy when the pre-depreciation level of domestic currency is maintained by reducing the foreign currency price to increase its market share.

Price Skimming refers to increasing profit margins of a firm as a result of depreciation of domestic currency leading to increase in domestic currency price.

10.12 Self-Assessment Test

1. Explain the various forms of internal hedging techniques that the corporates are exposed to manage exchange rate movements.
2. Describe the forms of external hedging techniques followed by corporates to manage the exposure to exchange rate movements.
3. Distinguish between 'transaction' and 'translation exposure'.
4. Give a detailed note on the marketing strategies, which a marketing manager needs to employ to effect the changes in exchange rates.
5. Enumerate on production strategies that enable a firm to protect from the detrimental effects of unfavorable exchange rate movements.
6. What is meant by hedging process? How is the money market hedge superior to forward contracts? – Illustrate.

10.13 Suggested Readings / Reference Materials

1. Francis Cherunilam, International Business - Text and Cases, 6th Edition, PHI Learning.
2. P G Apte (2020), International Financial Management, McGraw Hill Education (India) Private Limited.
3. Madhu Vij (2021). International Financial Management – Text and Cases. 4th edition. Taxmann
4. Charles W. L. Hill, G. Tomas M. Hult (2021). International Business. 12th edition. McGraw Hill Education (India) Private Limited.
5. Choel S. Eun & Bruce G. Resnick (2022). International Financial Management. 8th edition. McGraw Hill Education (India) Private Limited.
6. K. Aswathappa (2020). International Business. 7th edition. McGraw Hill Education (India) Private Limited.

10.14 Answers to Check Your Progress Questions

1. **(b) Transaction Exposure**

   Transaction exposure introduces variability in a firm's exports. This is because the transaction exposure arises from the day-to-day operations in the business. Since the exchange rate may vary from one day to another day, the amount received by an exporter may change depending

on the exchange rate taken for converting the foreign currency into domestic currency.

2. (a) Management of Exposure

Management of exposure essentially means reduction or elimination of exchange rate risk through hedging which involves taking a position in the forex and /or in the money market that cancels out the outstanding open position.

3. (c) Exposure Netting

Exposure netting involves creating exposures in the normal course of business which offset the existing exposures. The exposures so created may be in the same currency as the existing exposures, or in any other currency, but the effect should be that any movement in exchange rates that results in a loss on the original exposure should result in a gain on the new exposure.

4. (b) Transaction Exposure

Transaction exposure is eliminated through hedging technique in forward market while the company having long currency position will sell the currency forward. A company having short position in currency will buy currency forward at fixed forward rates at which the foreign currency transaction takes place. Thus, it is leading to its cost or profits.

5. (d) Money Market

Money markets can be used for hedging foreign currency receivables or payables that lock the exchange rates at which the firm needs to buy foreign currencies by knowing the total cost involved in advance in the form of principal and interest it needs to repay in domestic market.

6. (e) Economic Exposure

Economic exposure cannot be managed using hedging techniques due to the unpredictability of changes in the cash flows that require marketing, production and financial management strategies to cope with the risks.

7. (d) Penetration pricing

Penetration pricing is a kind of pricing strategy that has a direct effect on market share of the firm, when the pre-depreciation level of domestic currency is maintained by reducing the foreign currency price to increase its market share.

8. (c) Promotion

Promotion is a strategic activity that enables an exporting firm to generate profits on such expenditures in which the devaluation of the monetary value of domestic currency improves the competitive position by increasing revenues.

9. (e) Flexibility in shifting production capabilities from one country to another leads to less economic exposure than having production facilities in only one country

Except (e), rest are considerate of right input mix strategy. Because, it refers to the product sourcing method, that enables production shifts among different production centers in order to avoid exchange rate risks.

10. (a) Natural Hedging

It is a method that eliminates an undesirable financial risk arising out of firm's normal operating procedures. It involves a strategy of investing in two different asset classes or financial instruments whereby the performance of one instrument acts as a hedge against the performance of another instrument.

Unit 11

International Project Appraisal

Structure

11.1 Introduction

11.2 Objectives

11.3 Meaning of Project Appraisal

11.4 Sources of Funding for International Projects

11.5 Reasons for Foreign Direct Investment

11.6 Appraisal for Foreign Direct Investment

11.7 The Adjusted Present Value Criterion

11.8 Summary

11.9 Glossary

11.10 Self-Assessment Test

11.11 Suggested Readings/Reference Materials

11.12 Answers to Check Your Progress Questions

"There are two fatal errors that keep great projects from coming to life, 1. Not finishing, 2. Not starting".

- Buddha Gautama, a spiritual teacher

11.1 Introduction

Projects, whether national or international, once conceived in mind have to start to complete.

In the previous unit, we discussed various types of exchange risk and what are the avenues available to mitigate the exchange risk. Corporates and financial institutions are exposed to transaction, translation and economic/operating exposure. Some of the measures for mitigation of these risks were also discussed. We have also discussed how ECGC of India is covering Political and Commercial Risks of export/import trade through various products.

One of avenues available to corporates for expansion of their business is starting new projects in the overseas markets where they find strong potential for business growth. Another mode of expansion available to corporates is investment by way of equity or debt in another overseas corporate body.

In this unit, we discuss the concept of project appraisal and various avenues available to international projects to mobilize their funds.

International projects require huge funding. Equity and debt are the routes through which the corporates mobilize the funds for their various projects. Direct

investment by the foreign entities either in the form of equity, debt is also popular in international projects. This unit deals with different aspects of foreign direct investment and evaluation of foreign projects.

11.2 Objectives

After studying this unit, you should be able to:

- Discuss the basics on the project appraisal
- Describe the sources of funding for international projects
- Appraise the differences between FPI and FDI
- Discuss the reasons for FDI
- Describe the appraisal issues in FDI
- Explain the legal ways in which profit repatriation can be circumvented
- Illustrate Adjusted Present Value (APV) approach for evaluating a foreign project
- State the qualitative measures in assessing the international projects

11.3 Meaning of Project Appraisal

Whenever a commercial organization is considering a capital expenditure program, be it expansion, modernization, or diversification of its line of activity, such an initiative will be considered as a project. To execute a project, a series of activities must be implemented either in sequence or in parallel within a specified period to attain the desired outcomes. In the management of a project, the iron triangle consists of *scope*, *time*, and *cost* which act as constraints. The quality of a project is a function of the following three elements: cost/budget, deadlines/time, and scope. The assessment of a project is known as "Project Appraisal" which is done generally before the execution of the project but sometimes it may also be done after the project completion.

According to the PMBOK (Project Management Body of Knowledge), Project Appraisal is a consistent process of reviewing a given project and evaluating its content to approve or reject this project. This is through analyzing the problem or need to be addressed by the project, generating solution options (alternatives) for solving the problem, selecting the most feasible option, conducting a feasibility analysis of that option, creating the solution statement, and identifying all people and organizations concerned with or affected by the project and its expected outcomes. It is an attempt to justify the project through analysis, which is a way to determine project feasibility and cost-effectiveness.

Project analysis is extremely handy if we have visibility regarding the project's starting and finishing points. The sponsor of the project does its appraisal. The key objectives of project appraisal are:

✓ Assess the technical feasibility, commercial viability, and social desirability.

✓ Choose to either accept or reject the project.

Broadly, the appraiser of the project conducts: market analysis, economic analysis, financial analysis, technical analysis, and management evaluation to make an informed decision.

Example: Appraisal of Navi Mumbai international Airport

A project appraisal comprised of Technical, commercial, economic and marketing appraisals. Let us look at these four aspects of Navi Mumbai International Airport

Technical appraisal- The project was built on Public Private Partnership basis with City and Industrial Development Corporation of Maharashtra- CIDCO being the nodal government agency for the project on a Design, Build, Finance, Operate and Transfer (DBFOT) basis. The Texas-based Jacobs Engineering Group prepared the project appraisal and master plan for the airport. The design of passenger terminals and the Air Traffic Control (ATC) tower was done by Zaha Hadid Architects a London based company. The project was coming up on 2,268 hectares of land of which the actual airport would be built on 1,160 ha. There was a delay in commencement due to delay in acquiring the land as ten villages falling in the core airport area had to be shifted with 3,000 families affected which had been cleared. 22.5% developed land compensation and other incentives were offered. The project work had started on August 4, 2021 and the first phase was expected to be in operation in December 2024.

Economic and commercial appraisal – The airport would be able to handle 10 million passengers in the first phase and after total completion, would be able to handle more than 90 million passengers per annum. The Navi Mumbai International Airport Ltd., (NMIAL) would operate the airport with CIDCO holding 26% equity share and rest by Adani group. The project was estimated to cost ₹16,700Cr.

Marketing appraisal- Being India's financial capital, the existing airport in Mumbai would find it difficult to handle the flow of passengers in the near future and hence a necessity was felt to set up a green field airport in Navi Mumbai which will handle 10 million passengers in first phase and to be increased to 90 million after total completion of the project

Thus, project appraisal was a consistent process of reviewing a given project and evaluating its content to approve the project.

Source- https://www.hindustantimes.com/cities/mumbai-news/navi-mumbai-international-airport-project-finally-takes-off-as-all-hurdles-cleared-101650978713962.html dated 26.04.2022

Date of access- 25.07.2022

11.4 Sources of Funding for International Projects

Every capital expenditure project that is being set up in the overseas markets can be funded through equity, debt, and government grants. International financial

markets can be tapped for raising equity and debt, or alternatively, they can be placed privately with qualified institutional buyers (QIBs). Commercial banks provide long-term loans to fund projects at a competitive rate. Similarly, international agencies and development banks provide soft loans to projects that are socially desirable. Alternatively, there are government grants from either the host or home country or bilateral/multilateral/ international agencies.

Global capital markets offer a variety of funding opportunities to companies that are willing to cross the national frontiers. Generally, the funding issues that need the attention of the CFOs are:

- *Availability*: All capital markets are not liquid enough to absorb large public issues. Hence, we need to tap those global markets that are liquid enough to absorb the capital offering.
- *Cost*: Funds may be available because the international financial markets are deep. However, the cost considerations are equally important to choose the specific markets.
- *Degree of leverage*: Borrowings magnify the earnings for the shareholders as they carry a fixed cost. Every company should decide on the optimal size of the borrowing as they can be detrimental to the interests of shareholders beyond a threshold limit.
- *Interest Coverage Ratio*: The higher the EBIT in relation to the potential interest liability, the higher is the comfort for the lenders. Given the magnitude of potential earnings, a company should have an appropriate mix of owned and loaned funds.
- *Control Considerations*: Issuing too much of equity would result in sacrificing voting strength while issuing too much of debt would expose the company to financial risk. Hence, appropriate balance should be struck between equity and debt.
- *Political Risk*: There is a possibility that the nation where a project is being set up may be carrying high political risk. The host nation may confiscate the assets (nationalize), or may place restrictions on servicing foreign currency debt.
- *Choice of Currency*: There is wide variety of options available to CFOs in choosing the currency of issue. Depending upon the nature of the capital expenditure project, origin of the vendors of property, plant, and equipment, and the other considerations, the appropriate currency should be opted. Borrowings in hard currency are always riskier than borrowing in soft currency.
- *Hedging Requirements*: Tapping international capital markets would expose the Indian company to foreign currency risk. As repayments of interest,

principal, dividends, and buyback of shares require foreign currency, the company's long position needs to be hedged against possible appreciation.

- *Institutional Differences*: The disclosure and reporting requirements are different in different markets and the corporate issuer of debt/equity should comply with the laws of the land of the home country as well as the host countries.

Let us discuss these varied sources in greater detail.

International Equity Issue:

A company that intends to raise a large quantum of funds to finance an international project need not depend on domestic equity markets which are generally shallow. They can tap the most liquid markets in the world and raise serious ownership capital to fund world-class projects. Any non-American and non-European company can issue shares outside its home country denominated in USD and get it listed. Such an issue of equity takes the form of Depository Receipts. Each depository receipt may be equivalent to one or more equity shares. These shares are required to be deposited with a local depository in the country where it would be listed. Such capital issues of equity are branded as American Depository Receipts (listed in USA refer Table 11.1 (below)), Global Depository Receipts (listed outside USA), European Depository Receipts (listed in Europe), Singapore Depository Receipts (listed in Singapore), and Indian Depository Receipts (listed in India). The major advantages of raising equity overseas are: enhances visibility because of global presence, diversifies the investor base, and increases liquidity for the equity shares. As regards the investors, the holders of depository receipts do not have any voting rights but can convert depository receipts into equity shares and vice versa known as two-way Fungibility.

International Debt Issue:

A company can raise funds in the overseas capital markets by issuing debt instruments denominated in foreign currency to fund capital projects in either home markets or outside. Alternatively, foreign currency loans can be raised in India by a domestic company from banks/non-banks known as External Commercial Borrowings (ECBs). The international bonds carry foreign currency risk, country specific risk, and regulatory risks. They are broadly classified into global bonds, foreign bonds, euro bonds, foreign currency convertible bonds, and floating rate notes.

- **Global Bonds:** Large corporates that enjoy high investment grade status make simultaneous issue of bonds in USD/EUR across leading financial centers like London, Tokyo, and New York to bring down the cost of floating the issue.

- **Foreign Bonds:** Bonds issued by corporates, sovereign nations, and other entities outside their home country and denominated in the currency of the host country are known as foreign bonds, issued in the USA in USD (Yankee Bonds), Japan in JPY (Samurai Bonds), UK in GBP (Bulldog Bonds), and Asia outside Japan in non-JPY (Dragon Bonds).

  - Reliance Industries raised $ 100m through a 50-year Yankee bond issue in August 1996 from the US market. Though these longest maturity Yankee bonds from Indian origin are due for redemption on 6 August 2046, they do carry a call option for 30 years due on 6 August 2026. It means Reliance can call back the bonds any time after this cut-off date for redemption purposes. These bonds which were rated Baa3 by Moody's and BB+ by S&P carried a fixed coupon rate of 10.5%.

Example: The Largest Amount Raised by an Indian Company Through Foreign Currency Bonds.

Reliance Industries Ltd., had raised $4 billion through debt security (bonds) in December 2021. The funds would be used for ongoing projects, working capital needs and retire some of the existing borrowings. The bond issue was oversubscribed by 300% at $11.5 billion and the bonds were rated BBB+ by S&P and Baa2 by Moody's

The details of the bonds are as follows.

Amount in $	Tenor	Coupon
1.5 billion	10 years	2.875 %
1.75 billion	30 years	3.625%
0.750 billion	40 years	3.75 %

The bonds would carry coupons linked to US treasuries as follows

- The 10-year notes would carry a coupon rate that was 1.2 percentage points above the 10-year US treasury note.
- The 30-year bond would offer 160 basis points over the corresponding US government bond
- The 40-year note would give 170 basis points over the respective US Treasury note.

The details of country and investors profile were

In terms of amount

- 53% from Asia,
- 14% from Europe
- 33% in the United States.

In terms of investor profile,

- ✓ 69% to fund managers
- ✓ 24% to insurers
- ✓ 5% to banks
- ✓ 2% to public institutions.

Source: https://www.business-standard.com/article/companies/reliance-raises-4-bn-via-foreign-currency-bonds-at-finest-rate-122010601559_1.html dated 7th January 2022 Date of access- 2nd December 2022

- **Euro Bonds:** These bonds are most popular amongst the international bonds as they are least regulated. Euro bonds are those which are issued outside the country in whose currency it is denominated. For example, a German company issuing dollar denominated bonds in Japan.
- **Foreign Currency Convertible Bonds (FCCBs):** These are like foreign bonds except that they provide an opportunity to the bond-holder to convert the debt instrument into equity at a later date at a pre-determined price either partly/fully or optionally/compulsorily.
- **Floating Rate Notes (FRNs):** These are bonds/debentures issued by companies outside their home markets in a foreign currency at coupon rates pegged to some benchmark rate. Generally, Indian companies had issued in USD and pegged it to USD LIBOR – 6 months.

Government Financing:

Sovereign governments support a variety of projects that are socially desirable by funding through a grant. It is one of the means by which the government stimulates the economy by providing public services. The government may provide direct support through subsidies/grants, equity investment and/or debt. When a project on its own doesn't have either bankability or commercial viability, such government financing interventions are particularly useful.

Multi-lateral Financing:

The World Bank Group consists of three funding agencies: International Bank for Reconstruction & Development (lends to governments of middle-income and credit-worthy low-income nations), International Development Agency (provides interest-free loans/credits and grants to the governments of poorest nations), and International Finance Corporation (funds private sector projects in developing countries). The World Bank Group committed funds which are valued at more than $ 60 billion for 2018. This group sometimes funds the entire capital expenditure projects all alone. But often, they are co-financed with recipient governments themselves, or on other occasion's partners with other private sector investors (GMR Infra), commercial banks (Citigroup), multilateral institutions (UNDP), and other export credit agencies (EXIM Bank). However, this group

provides a helping hand to those projects for which adequate capital is not available from alternative sources on reasonable terms. The group also facilitates special financing at soft rates through trust fund partnerships with bilateral and multilateral donors.

Another avenue available to International projects for funding is investment by overseas corporates/companies in the form of equity or debt.

11.5 Reasons for Foreign Direct Investment

Foreign Direct Investment (FDI) is an investment made in physical assets like plant and machinery in a foreign country with the management control being retained by the native (investor) of the country. It varies from Foreign Portfolio Investments (FPI) in two situations. Firstly, while FPI is made in financial assets, FDI is made in physical assets. Secondly, FPI does not result in a managerial control over the company whose securities are bought, while FDI normally results in managerial control over the operations of the foreign entity. FDI can be done in several ways:

- By incorporating a new entity in the foreign country, either as a branch or a subsidiary. A business entity can form a subsidiary either on its own or as a joint venture with an existing entity.
- By making further investments in an existing foreign subsidiary or branch.
- By acquiring an existing foreign business entity or purchasing its assets.

Companies invest in foreign physical assets for several reasons.

The important ones are:

- Growth Prospects
- Overcome trade barriers
- Locational advantage
- Vertical diversification
- Expansion across Borders
- Attacking foreign competition
- Extension of existing international operations
- Stage of Product life cycle
- Proprietary knowledge
- Capitalizing on Brand Reputation
- Protection of brand quality
- Accompanying the clients

Growth Prospects

As the domestic market saturates for a company's products, it starts viewing overseas markets as a potential source of growth. Continuous growth is essential for achieving further economies of scale, which is necessary for any business enterprise to survive in a competitive market.

Overcoming Trade Barriers

Despite the growing importance of international trade, trade barriers continue to be in place in most of the countries due to various economic, political and social reasons. The need to get around these trade barriers prompts corporates to make FDI in order to expand the market for its products.

Locational Advantage

The locational advantages offered by a country by way of lower costs serve as an important incentive for a corporate to start production facilities abroad.

Vertical Diversification

Companies going for vertical diversification may sometimes require expanding overseas because of non-availability of opportunities in the domestic market. For example, if a foreign country has abundant supplies of an essential raw material, the company may like to diversify by investing in that market, hence ensuring smooth supply of raw material. Similarly, if there is a flourishing industry overseas which can serve as a captive consumer of a company's final product, the company may like to form its presence there.

Expansion across borders

A corporate may like to invest overseas for the benefit of diversification across several markets. As in the case of portfolio investments, investment in physical assets when spread over various countries, is expected to give a higher stream of or steadier income.

Example: UK's Development Finance Institution BII to Invest in MM Subsidiary EV & Co

British International Investment (BII) and Mahindra & Mahindra (M&M) had executed an agreement to invest up to ₹ 1,925 crores each into a wholly owned subsidiary of M&M -EV Co.". The British investor had pumped ₹ 1,925 crores in the form of compulsory convertible instruments at a valuation of up to ₹ 70,070 crores and would have an equity up to 4.76% in the EV Co which would be a four-wheel (4W) passenger electric vehicle.

Contd. .....

The total capital infusion for the EV Co., was envisaged to be approximately ₹ 8,000 crores / USD 1 billion between FY 24 and FY 27 for the planned product portfolio. BII's investment was to significantly increase the adoption of electric vehicles in India and other markets served by M&M.

BII was one of the largest investor in developing economies with a total portfolio of $7.1bn of which 681 businesses were in African countries and 410 were in Asian countries. The investor was planning to diversify its investments in various geographical locations across the globe.

Source: https://www.mahindra.com/news-room/press-release/british-international-investment-to-invest-up-to-rs-1925-crores#:~:text=Mumbai%2C%20July%207%2C%202022%20%E2%80%93,%E2%80%9CEV%20Co.%E2%80%9D). Dated: 7th July 2022, date of access- 25th July 2022

Attacking Foreign Competition

Companies being challenged by foreign competitors in their home country may have an incentive in forming production bases in the competitors' countries. The incentive may be two-fold. On one hand, it may provide them with the same cost advantages as their competitors. Simultaneously, the competitors' attention may get diverted as they start focusing on safeguarding their home turf.

Extension of Existing International Operations

For a corporate entity involved in exporting goods to other countries, establishing a foreign subsidiary may appear a natural extension. Starting with a sales subsidiary, the corporate may graduate to having licensing agreements, and finally overseas production capacities.

Stage of Product Life Cycle

As a product moves to the maturity stage (as explained by the Product Life Cycle theory in the unit "Theories of International Trade"), its production process becomes more standardized and producers from developing countries become interested in producing it. As the developing country producers enjoy a cost advantage at this stage (mainly due to cheap labor), the producers of the country where the innovation took place need to shift their production facilities to the developing countries in order to be able to compete. This requires Foreign Direct Investment (FDI).

Proprietary Knowledge

Certain types of knowledge (e.g., the experience in manufacturing and marketing a particular product) cannot be transferred to foreign producers for a price (unlike a trade mark or a patent), and hence the need to set up overseas operations to fulfill the desire to exploit a company's existing knowledge in foreign markets. Sometimes, the knowledge may become non-transferable due to the reluctance of the company to share its secrets, again promoting FDI.

Capitalizing on Brand Reputation

Some brands enjoy international reputation. The popularity of these brands acts as an incentive for their producers to expand overseas. For example, fashion brands such Armani, Versace, Dior and Hermes set their operations in India to exploit their international reputation.

Protection of Brand Quality

Though a company can exploit foreign markets by licensing the use of their brand names, the fear that the licensee may not be able to live up to the company's strict quality standards, may push the company to set up its own manufacturing unit abroad.

Accompanying the Clients

Some service firms may find it both attractive and necessary to expand along with their clients. For example, the big auditing firms generally extend their operations to countries where their clients are headed due to their clients' need to have a single audit firm across the globe. This type of expansion becomes necessary owing to the possibility of losing business to a competitor having international existence.

11.5.1 Foreign Direct Investments (FDI) in India

These cash flows are into India, hence, they are considered as inward FDI to India.

The government has eased FDI regulations in various industries, PSUs, oil refineries, telecom and defence. India's FDI inflows reached record levels during 2020-21.

The Government of India increased FDI in the defence sector by increasing it to 74% through the automatic route and 100% through the government route. The government has amended rules of the Foreign Exchange Management Act (FEMA), allowing up to 20% FDI in insurance company LIC through the automatic route.

In September 2021, the GOI announced 100% FDI via the automatic route, up from the previous 49% in telecom sector. In August 2021, the government amended the Foreign Exchange Management (non-debt instruments) Rules, 2019, to allow the 74% increase in FDI limit in the insurance sector.

The total FDI inflows stood at US$ 81,973 million in 2020-21, a 10% increase over the previous financial year 2019-20. According to the World Investment Report 2022, India was ranked eighth among the world's major FDI recipients in 2020, up from ninth in 2019. Information and technology, telecommunication and automobile were the major receivers of FDI in FY22.

According to the Department for Promotion of Industry and Internal Trade (DPIIT), India's cumulative FDI inflow stood at US$ 871.01 billion between

April 2000-June 2022; India also had major FDI flows coming from Singapore at US$ 15.87 billion, followed by the US (US$ 10.54 billion), Mauritius (US$ 9.39 billion) and the Netherlands (US$ 4.62 billion). The state that received the highest FDI during this period was Karnataka at US$ 22.07 billion, followed by Maharashtra (US$ 15.43 billion), Delhi (US$ 8.18 billion), Gujarat (US$ 2.70 billion) and Haryana (US$ 2.79 billion). In 2022 (until August 2022) India received 811 Industrial Investment Proposals which were valued at Rs. 352,697 crores (US$ 42.78 billion).

The foreign investors willing to establish their entity or to make their presence through direct investments in the country are bound to cater to the following structural aspects to make an entry in India:

- **Incorporating a Company in India** can be done either as a public limited or a private limited company, both wholly owned& joint ventures are allowed. However, in case of a private limited company it requires a minimum of two share-holders.
- **Limited Liability Partnership (LLP)** is allowed under the government route in sectors where 100% FDI is permitted under the automatic route and without any conditions.
- **Sole Proprietorship or Partnership firm** is possible through the approval of RBI. RBI decides the application in consultation with the Government of India.
- **Extension of Foreign entity** includes Liaison office, Branch office (BO) or Project office (PO). These offices can undertake only the activities specified by the RBI. Approvals are granted under the government and the RBI route. 'Automatic route' is available to BO/PO meeting certain conditions.
- **Other Structures** comprise foreign investment or contributions in other structures like not-for-profit companies etc. subject to provisions of Foreign Contribution (Regulation) Act - FCRA.

Check Your Progress - 1

1. Which of the following statements is true when a foreign entity is investing in a manufacturing company in the form of equity where domestic entity retains managerial control?
   a. Shares will be issued to domestic company
   b. Debt will be in the name of foreign investor
   c. Financial assets will be created
   d. Physical assets will be created
   e. Debt will be in the name of the domestic company

2. Which of the following sources lead to continuous growth of any business, to survive in a competitive market, searching for potential markets?
   a. Economies of scale
   b. Comparative advantage
   c. Diversification
   d. Product life cycle
   e. Brand equity
3. When investments are made in the productive assets and investor's participation in management as stake-holders in business enterprises?
   a. FII
   b. FDI
   c. FPI
   d. BOP
   e. SDR
4. What is considered as an incentive to business entities who wish to expand their overseas market in a broad segment?
   a. Extension of existing international operations
   b. Vertical diversification
   c. Brand Equity
   d. Economies of scale
   e. Clients following
5. Which of the following permanent inter-governmental organizations seek to maximize the trade, investment and development opportunities of developing countries to help them face the challenges of globalization?
   a. WTO
   b. UNICEF
   c. UNCTAD
   d. DIPP
   e. FEMA

Activity 11.1

How has FDI inflows contributed to the economic development in India? Being an analyst, narrate the circumstances on how the increasing inflows of current account deficit affect the trend of FDI inflows in India.

Contd. .....

Answer:

11.6 Appraisal for Foreign Direct Investment

Before making any investment, it is imperative that an estimate is made as to the expected returns from that investment. This requires the investment to be judged both for the cash flows it is expected to generate, as well as for the associated risk. Since outward FDI by the foreign investors entails ownership of physical assets which are to be employed for specified uses, the process is reduced to analyzing a project, albeit with an important difference. Here, the cash flows are expected to be in a foreign currency (as the investment is made in a foreign country), with the attendant economic, political and social environment (and hence the risks) being different from those applicable to home country projects.

The economic viability of a home country project can be measured using various tools like Net Present Value (NPV), Internal Rate of Return (IRR), Payback Period, Accounting Rate of Return (ARR) etc. However, in an international project, there are certain issues involved which affect both the cash flows and the discount rate and thus make these frameworks insufficient.

The issues are:

- Blocked funds
- Effect on the cash flows of other divisions
- Restrictions on repatriation
- Taxability of cash flows
- Exchange rate movements
- Subsidized loans by the foreign government

11.6.1 Restrictions on Repatriation

Several countries impose restrictions on the profit or the capital that can be repatriated by a subsidiary to its foreign parent. As all the cash flows generated by the foreign subsidiary would not be available to the parent company because of such restrictions, they cannot be considered for evaluating the worth of the project. In such a scenario, only those cash flows which can be repatriated (irrespective of whether they are repatriated or not) should be considered.

There are several legal ways to circumvent restrictions on profit repatriations. These should also be accounted for especially as some of them involve the way the project is to be financed. Some of these ways are discussed below:

- Transfer pricing
- Royalties
- Financing structure
- Inter-company loans
- Leading and lagging
- Currency of invoicing
- Re-invoicing centers
- Countertrade

Transfer Pricing

'Transfer pricing' refers to the policy of invoicing purchase and sale transactions between a parent company and its foreign subsidiary. It is on terms which are favorable to the parent company, hence shifting a part of the subsidiary's rightful profits to the parent. As this type of circumventing repatriation restrictions is very common, authorities are usually very alert as to the price at which transfers are made and compare it with 'arms-length' pricing.

The following shows the litigations encountered with respect to transfer pricing regulations in India affected from the time of its inception.

India's Transfer Pricing Amendments and Regulations Encountered with Legal Ambiguities

Ever since the enactment of the transfer pricing regulations in India with effect from April 2001, there have been few noteworthy judicial cases, which have established certain important transfer pricing principles, such as

- Preference for transaction-by-transaction analysis over the aggregation of transactions approach,
- Importance of functional similarity between tested party and equivalents, and
- Disregard of equivalents having controlled transactions.

Also, while the common issues such as availability of contemporaneous data and use of secret equivalents remain unresolved, the Indian tax authorities have increased their attention on complex issues including:

- Intangibles,
- Procurement models, and
- Cost allocations.

Key Transfer Pricing Assessment mostly includes:

- Royalties for know-how and trademark or trade names;
- Intra-group services such as management services fees or cost contributions;
- Guarantee fee, intercompany loans and other financial transactions;
- Mark-ups for captive intra-group service providers, particularly in Information Technology Enabled Services (ITES) or in Business Process Outsourcing (BPO) industry;
- Comparability of Domestic and Export Segments;
- Comparable with higher profits or losses; and
- Valuation of Shares.

Royalties

The foreign subsidiary may use the parent company's trademarks and copyrights and pay royalties as compensation. As this is not a transfer of profit, the normal restrictions on profit repatriation do not come under these payments.

Leading and Lagging

Leading and lagging payments are between the parent company and the subsidiary. It is based on the expected movements in exchange rates that can help in transferring profits from the latter to the former. For example, the subsidiary must pay its parent company a sum which is denominated in a currency that is expected to harden. The subsidiary lags (i.e., delays) the payment so that a part of the subsidiary's profits get transferred to the parent company. In the event of such a payment being denominated in a currency that is expected to depreciate, the subsidiary leads (i.e., advances) the payment, again with the same effect.

Financing Structure

An overseas project can be funded solely through equity investments, or through a combination of equity and debt. In cases where there are restrictions on repatriation of profits and repayment of capital, part of the project can be funded through loans from the parent company to the foreign subsidiary. Usually, there are fewer restrictions on payment of interest and repayment of loans than on profit repatriation. Further, interest payments are tax deductible for the subsidiary while dividend payments are not (for the parent companies both are taxable). The repayment of loans is non-taxable in the hands of the parent company, while funds transferred as dividends are subjected to tax. This way, repatriation restrictions can be manoeuvred around, along with getting additional tax advantages, by extension of loans to the subsidiary by the parent company, instead of doing direct equity investments.

Inter-company Loans

The types mentioned above are common ways of getting around regulations in a legal manner. The regulatory authorities are aware of the practices adopted by the corporate for repatriating the funds Sometimes the subsidiaries are disallowed from making such payments To get rid of these problems, companies can go for inter-company loans. The simplest way is that two companies make parallel loans to each other's subsidiaries. This is with the amounts and timing of the loans and the interest payment as also the loan repayment matching. This can be refined if each of the subsidiary companies is based in the same country as the other's parent company. In that case, the loans come totally out of the ambit of exchange control regulations as both the loans are made within the countries involved. The only drawback of this method is that the holding company cannot set-off the loan which it has extended against the loan that its subsidiary has received (which would be possible in quite a few countries if it were a direct loan to its own subsidiary) as a part of consolidation of accounts, and the loans would appear both as an asset as well a liability on its books.

Another way of extending such loans without the parent getting directly involved is a back-to-back loan involving a major multinational bank or a financial institution. Under this method, the parent corporation makes a loan to the bank/FI, with the bank/FI extending an equivalent loan to the foreign subsidiary. For the bank, the loan is risk-free as it is backed by the parent company's loan. From the parent company's point of view there is a lesser political risk involved, as in case of exchange controls being imposed, it is less likely that interest payments and loan repayments to a multinational bank/FI would be restricted than if the payments were to be made directly to the parent company.

Currency of Invoicing

Selection of currency in which intra-group trade is invoiced is an important tool for transferring profits within different companies of the same group. Exchange controls are generally imposed to prevent the local currency from depreciating. If the currency is expected to depreciate despite the controls, the exports from the subsidiary based in that country to other group companies can be invoiced in local currency. Also, the imports of that subsidiary from other group companies can be invoiced in some hard currency (one that is expected to appreciate). As the country's currency depreciates, the subsidiary's profits will fall from what they would have been otherwise, and the profits of other group companies will increase. The other group companies which benefit from this should be based in countries which have either lesser or non-existent exchange controls, or a lower tax rate or a hard currency. This way, we can increase the profit repatriable to the parent company.

Re-invoicing Centers

Trades between companies in the same group can be routed through a re-invoicing center. Re-invoicing centers act as an intermediary by buying from one company and selling it to the other. The margin between the buying and the selling rates is the amount of profit transferred from the subsidiary to the re-invoicing center. Such centers are primarily used for the management of exposures but can also be used for converting non-repatriable cash flows into repatriable cash flows, when setup in countries with lesser capital controls. In addition to such conversion, setting up of re-invoicing centers in tax havens can reduce the overall taxes, and thus raise the after-tax cash flows.

Countertrade

Countertrade involves the parent company and the subsidiary buying from and selling to each other. The most common form taken is 'Barter' trade. While the goods transferred from the subsidiary (the value of which may be very high compared to the value of goods received by it) may not be useful for the parent company directly, it can sell them to some third party, with the proceeds serving as an indirect transfer of the subsidiary's profits.

11.6.2 Taxability of Cash Flows

The profits of a foreign subsidiary are first taxed in the foreign country. This does not pose any problem as far as evaluation of a project is concerned, as the cash flows considered are post-tax, in accordance with financial management principles. The issue that comes up when the subsidiary is based in a foreign country is that of tax on repatriated profits. When the subsidiary repatriates its profits to its parent company, there is generally a withholding tax levied by the foreign government. These profits, when received by the parent company, are again taxed in the domestic country as dividends received. To avoid such problems, countries generally enter into double-taxation avoidance agreements (DTAA), whereby these taxes become payable only in one country (or partly in one and partly in another). Even in the absence of such agreements, the parent company generally receives a tax credit for the withholding taxes paid by the subsidiary. As the tax credit cannot exceed the tax to be levied by the domestic tax authorities (if the foreign withholding tax rate is higher than the domestic dividend tax rate), the corporation ends up paying the higher tax rate. Due to this, the tax rate that is considered while evaluating such projects is the higher of the domestic and the foreign rates.

11.6.3 Exchange Rate Movement

The volatility of exchange rates is a well-known fact. The rate at which the initial investment is converted into the foreign currency need not be the same as the exchange rate prevailing at the time of repatriation of profits. Since the relevant cash flows are those from the point of view of the parent company, the cash flows to the subsidiary need to be converted into the domestic currency of the parent company at rates expected to prevail in the future.

11.6.4 Subsidized Loans by Foreign Government

The foreign government may sometimes extend concessional loans to a company setting up operations in its country in order to encourage FDI or to promote economic activity. This reduces the cost of funds for the project. Yet, this reduction of cost of funds may not get reflected as a lower discount rate in the traditional models, because this concession is not directly available to the company's investors.

It is quite difficult to build these factors into the frameworks used for evaluating domestic projects. These hurdles can be at least partially overcome by using the Adjusted Present Value (APV) approach. This approach is an extension of the Modigliani-Miller approach to valuation of a company. It first measures the present value of the basic cash flows of a project using the all-equity rate of discounting, and then tackles the above-mentioned issues one by one. By breaking up the evaluation in this manner, it provides scope for analyzing an indefinite number of additional factors which may affect an international project.

Example: Incentives to Foreign and Indian Companies to Set Up Semiconductor Units in India

The Union Cabinet approved a production linked incentive (PLI) scheme to the extent of ₹ 76,000 cr scheme for semiconductor manufacturing in India over the next 5 to 6 years. The incentive support was to those companies / consortia that were into manufacturing Silicon Semiconductor Fabs, Display Fabs, Compound Semiconductors / Silicon Photonics / Sensors (including MEMS) Fabs, Semiconductor Packaging (ATMP / OSAT), Semiconductor Design. The foreign companies which had shown interest to set up the units include Israel's Tower Semiconductor, Apple's contract manufacturer Foxconn and a Singapore-based consortium, Vedanta Group etc.

Following broad incentives had been approved for the development of semiconductors and display manufacturing ecosystem in India:

Contd. .....

Semiconductor Fabs and Display Fabs	India should extend fiscal support of up to 50% of project cost
Semi-conductor Laboratory (SCL)	Modernisation and commercialization of Semi-conductor Laboratory (SCL)
Compound Semiconductors / Silicon Photonics / Sensors	India should extend fiscal support of 30% of capital expenditure to approved units for setting up of Compound Semiconductors / Silicon Photonics / Sensors (including MEMS) Fabs and Semiconductor ATMP / OSAT facilities
Semiconductor Design Companies	The Design Linked Incentive (DLI) Scheme should extend product design linked incentive of up to 50% of eligible expenditure and product deployment linked incentive of 6% - 4% on net sales for five years.
Comprehensive fiscal support for semiconductors and electronics	Incentives for every part of supply chain included electronic components, sub-assemblies, and finished goods to the tune of ₹ 55,392 crore under PLI for large scale electronics manufacturing IT Hardware, SPECS Scheme and Modified Electronics Manufacturing Clusters (EMC 2.0) Schemes
Development of semiconductor and display ecosystem would have a multiplier effect across different sectors of the economy with deeper integration to the global value chain	

Source: https://www.business-standard.com/article/pti-stories/cabinet-approves-rs-76-000-cr-pli-scheme-for-semiconductor-manufacturing-121121500772_1.html dated 15th December 2021, Date of access- 25th July 2022

Activity 11.2

Discuss the regulatory issues related to repatriation of profits by a foreign entity to its parent company.

Answer:

11.7 The Adjusted Present Value (APV) Criterion

While making a long-term investment, the investor considers various issues before taking a decision. Capital Budgeting is the process of selecting the asset or an investment proposal that will yield returns over a long period.

Various techniques are used when long-term investment decision is being taken such as Payback Period, Discounted Payback Period, Net Present Value, Accounting Rate of Return, Internal Rate of Return, and Profitability Index.

The adjusted present value approach is very similar to the Discounted Cash Flow method of valuation. So similar, in fact, that they will yield approximately similar results if the financing structure of a company is consistent. The method is especially effective in any situation in which the tax implications of a deal heavily effect the outcome,

The Adjusted Present Value (APV) of a foreign project is given by:

$$APV = -S_o(C_o - A_o) + \sum_{t=1}^{n} \frac{(S_t^* C_t^* + E_t^*)(1-T)}{(1+k_e)^t} + \sum_{t=1}^{n} \frac{D_t T}{(1+k_d)^t} + \sum_{t=1}^{n} \frac{rB_o T}{(1+k_b)^t}$$

$$+ S_o \left[CL_o - \sum_{t=1}^{n} \frac{R_t}{(1+k_c)^t} \right] + \sum_{t=1}^{n} \frac{P_t^* T}{(1+k_p)^t} + \sum_{t=1}^{n} \frac{I_t}{(1+k_i)^t}$$

.... (Eq. 1)

Where,

APV= Adjusted Present Value

S_0 = Current exchange rate

C_0 = Initial cash outlay in foreign currency terms

A_0 = Activated funds

S_t^* = Expected exchange rate at time 't'

n = Life of the project

C_t^* = Expected cash flow at time 't', in foreign currency terms

E_t^* = Expected effect on the cash flows of other divisions at time 't', expressed in domestic currency terms; can be either positive or negative

T = Domestic or foreign tax rate, whichever is higher

D_t = Depreciation in home currency terms at time't'. (If the depreciation is not allowed to be set-off by the parent company against its own profits, it needs to be defined in foreign currency terms with its present value being converted at S_0 into domestic currency terms)

B_0 = Contribution of the project to borrowing capacity of the parent firm

r = Domestic interest rate

CL_0 = Amount of concessional loan received in foreign currency

R_t = Repayment of concessional loan at time 't'

p_t^* = Expected savings at time 't' from inter-subsidiary transfer pricing

I_t = Illegally repatriated cash flows at time 't'

k_e = All-equity discount rate, reflecting all systematic risks, including country risk and exchange-rate risk

k_d = Discount rate for depreciation allowances

k_b = Discount rate for tax savings from generation of borrowing capacity

k_c = Discount rate for savings due to concessionary loans, generally the interest rate in the absence of concessionary loans

k_p = Discount rate for savings through transfer pricing

k_i = Discount rate for illegal transfers

The last term in the equation requires some explanation. A project may be unviable despite the use of all the possible ways of legally repatriating a subsidiary's profits. Under such conditions, the parent company may resort to use of illegal ways of remitting these profits. In such a situation, these illegal cash flows should also be considered while evaluating the project.

The Discount Rate

As previously mentioned, k_e is the all-equity discount rate, reflecting a premium for all systematic risks, including country-risk and exchange-risk. The discount

rate also reflects the risk reduction due to the portfolio effect, i.e., due to the imperfect correlation between returns from the various markets.

An important factor that needs to be considered is inflation. The presence of inflation makes the choice between the real and the nominal rate of discount, crucial. It becomes important to match nominal cash flows with a nominal discount rate, and real cash flows with a real discount rate.

To match cash flows with the appropriate discount rate, it becomes essential to analyze the nature of the cash flow. If the future cash flow is predetermined, or contractual in nature (e.g., depreciation allowance, or pre-contracted sales at a pre-determined price), then the nominal discount rate should be used as the cash flows would be expressed in nominal terms. If the future cash flows need to be estimated, then either real cash flows can be estimated and discounted at the real discount rate, or the inflation estimates can be built into the cash flows which would then be discounted at nominal discount rates. Let us now analyze the various discounting factors one by one:

k_e: This rate should be the nominal discount rate for contractual cash flows. As the cash flows have been converted into the domestic currency, it should be the domestic nominal discount rate. For non-contractual cash flows, if expressed in nominal terms, this should be the nominal rate.

k_d: Since the depreciation charge is based upon the historical cost of assets and is thus contractual, the discount rate should be the domestic nominal rate. If there is a strong probability of positive cash flows being generated, and the depreciation tax shield being availed, then the risk-premium may be negligible, and the domestic nominal risk-free rate may be used.

k_b: Since the borrowing capacity would be computed in nominal terms, this should be the nominal rate. Again, if the probability of positive cash flows is strong, then the domestic nominal risk-free rate may be used.

k_c: As the nominal foreign-currency interest rate would have to be paid in the absence of the concessionary loan, then that rate should be used as the discount rate for determining the present value of the repayments of the concessionary loan.

k_p & k_i: If the relevant cash flows are expressed in domestic, nominal terms, then the discount rate should be the domestic nominal rate. As there should be a risk-premium to reflect the possibility of these cash flows not getting remitted, it is suggested that this rate be equal to k_e.

Illustration 11.1

HiTech Ltd. is an Indian company manufacturing computers. It plans to set-up a manufacturing unit in Switzerland.

The following details are available for the proposed project:

The project outlay is estimated to be SFr 100,000. The company currently has SFr 50,000 blocked in Switzerland, out of which it can activate SFr 10,000 for the current project. The life of the project is estimated to be 5 years.

HiTech Ltd. is expecting to receive the following cash flows from the project in the coming years:

Year	Cash flow (SFr)
1	30,000
2	35,000
3	50,000
4	45,000
5	30,000

Currently, HiTech Ltd. is exporting computers to Switzerland from its domestic manufacturing unit. The loss of cash flows from this operation due to the new manufacturing unit is expected to be:

Year 1 = ₹ 3,00,000
Year 2 = ₹ 2,00,000
Year 3 = ₹ 1,50,000

The Indian tax rate is 30%, while the Swiss tax rate is 20%. Depreciation is to be provided based on 'Straight Line Method'. The contribution of the project to the borrowing capacity of the firm is ₹ 15 lakh.

The Swiss government extends a concessionary loan of SFr 20,000 to HiTech Ltd. at the rate of 10% p.a. The loan must be repaid in 5 equal annual installments over the life of the project.

The company expects to save ₹ 1,00,000 p.a. on taxes over the next five years through transfer pricing.

The spot rate is ₹/SFr 64.42, and the Swiss Franc is expected to appreciate against the Rupee @ 5% p.a. for the next 5 years.

The all-equity discount rate is 20%, while the domestic nominal risk-free rate is 10% p.a. The domestic interest rate is ruling at 18% p.a, the Swiss interest rates are ruling at 15% p.a.

The company expects zero salvage value at the end of 5 years. Calculate the APV of the project.

Solution

$S_o (C_o – A_o)$ = 64.42(1,00,000-10,000) = ₹ 57,97,800

Expected exchange rate at the end of

Year 1 = 64.42 x 1.05 = ₹ 67.64 /SFr
Year 2 = 66.68 x 1.05 = ₹ 70.01 /SFr

Year 3 = 67.30 x 1.05 = ₹ 70.67 /SFr

Year 4 = 69.28 x 1.05 = ₹ 72.74 /SFr

Year 5 = 70.98 x 1.05 = ₹ 74.53 /SFr

The present value of the cash flows received by HiTech Ltd. from the project would be

$$= \sum_{t=1}^{n} \frac{(S^*C_t^* + E_t^*)(1-T)}{(1+k_e)^t}$$

$$= \frac{(67.64 \text{ x } 30{,}000\text{-}3{,}00{,}000)(1\text{-}0.3)}{(1.2)^1} + \frac{(70.01 \text{ x } 35{,}000\text{-}2{,}00{,}000)(0.7)}{(1.2)^2} +$$
$$\frac{(70.67 \text{ x } 50{,}000\text{-}1{,}50{,}000)(0.7)}{(1.2)^3} + \frac{(72.74 \text{ x } 45{,}000)(0.7)}{(1.2)^4} + \frac{(74.53 \text{ x } 30{,}000)(0.7)}{(1.2)^5}$$

= 10,08,700 + 10,93,920 + 13,69,046 + 11,06,913 + 6,28,566 = ₹ 52,07,145

$$D_t = \frac{64.42 \text{ x } 1{,}00{,}000}{5} = ₹\ 12{,}88{,}400$$

The present value of the depreciation tax shield

$$= \sum_{t=1}^{n} \frac{D_t T}{(1+k_d)^t}$$

$$= 12{,}88{,}400 \text{ x } 0.3 \text{ x } PVIFA_{(10\%,5)}$$

= ₹ 14,65,297

The present value of interest tax shield on the borrowing capacity generated by the firm

$$= \sum_{t=1}^{n} \frac{rB_o T}{(1+k_b)^t}$$

$$= 15{,}00{,}000 \text{ x } 0.18 \text{ x } 0.3 \text{ x } PVIFA_{(10\%,5)}$$

= ₹ 3,07,071.

The annual repayment of concessionary loan

= 20,000/5 = SFr 4,000.

The present value of repayment of concessional loan

$$= \sum_{t=1}^{n} \frac{R_t}{(1+k_c)^t} = 4{,}000 \text{ x } PVIFA_{(15\%,\ 5)}$$

$$= 4{,}000 \text{ x } 3.352$$

= SFr 13,408.

The benefit of the concessionary loan

$$= S_0 \left[CL_0 - \sum_{t=1}^{n} \frac{R_t}{(1+k_c)^t} \right]$$

$$= 64.42[20,000 - 13,408]$$

$$= ₹ 4,24,657$$

The present value of the expected tax savings due to transfer pricing

$$= \sum_{t=1}^{n} \frac{P_t^* T}{(1+k_p)^t} = 1,00,000 \text{ x PVIFA}_{(20\%, 5)}$$

$$= ₹ 2,99,100.$$

Note: Here, the all-equity discount rate has been used to discount the expected tax savings.

APV = - 57,97,800 + 52,07,145 + 14,65,297 + 3,07,071 + 4,24,657 + 2,99,100

= ₹ 19,05,470.

Let us now calculate the NPV for the same set of data and compare it to the APV figure.

The cash flows for NPV would be:

C_0 = 64.42 (1,00,000 – 10,000) = ₹ 57,97,800

C_1 to C_5= $(S^* C^*_t + E^*_t) (1 – T) + D_t T + P^*_t T$

C_1 = 17,29,200 (1-0.3) + 12,88,400 (0.3) + 1,00,000 = ₹ 16,96,960

C_2 = 22,50,350 (0.7) + 12,88,400 (0.3) + 1,00,000 = ₹ 20,61,765

C_3 = 33,83,500 (0.7) + 12,88,400 (0.3) + 1,00,000 = ₹ 28,54,970

C_4 = 32,73,300 90.7) + 12,88,400 (0.3) + 1,00,000 = ₹ 27,77,830

C_5 = 22,35,900 (0.7) + 12,88,400 (0.3) + 1,00,000 = ₹ 20,51,650

The project would be financed from various sources as follows:

Domestic debt = ₹ 15,00,000

Concessional loan from foreign government = 20,000 x 64.42 = ₹ 12,88,400

$$\text{Equity} = 57,87,400 - (15,00,000 + 12,88,400) = ₹\ 30,09,400$$

$$\text{WACC} = 20\left(\frac{30,09,400}{57,97,800}\right) + 18\,(0.3)\left(\frac{15,00,000}{57,97,800}\right) + 10\left(\frac{12,88,400}{57,87,900}\right)$$

$$= 14\%$$

$$\text{NPV} = -57,97,800 + \frac{16,96,960}{1.14} + \frac{20,61,765}{(1.14)^2} + \frac{28,54,970}{(1.14)^3} + \frac{27,77,830}{(1.14)^4} + \frac{20,51,650}{(1.14)^5}$$

$$= ₹\ 19,14,534$$

As we can see, the NPV criteria give a value higher to the APV figure by ₹ 9,064. This difference occurs due to the different discount rates used in the two methods, as well as the difference in cash flows. Though this does not have a major effect on the decision in this case as both the figures are positive, using the NPV criteria may however lead to wrong decisions in marginal cases. Even if it does not result in an erroneous decision, in all likelihood it will give a return which is different from the return arrived through the APV method. The use of the APV method assumes that it is possible to identify the various discount rates used in the process. In cases where these discount rates cannot be accurately determined, then it may be better to use the NPV criteria. This is because the use of inappropriate discount rates may distort the present value figure more than it would be were the NPV criteria used.

The profitability of a project sometimes gets affected by the priorities and the economic policies of the foreign government. Suppose that two (2) projects are same in all respects, except the initial investment and assuming that the profitability of the two projects (in percentage terms) is also the same, the project with a higher initial investment would have higher cash inflows in subsequent years, leading to a higher APV. If, in addition, the foreign government is trying to attract FDI, it may favor the bigger project, which may get reflected in a larger concessionary loan or more activated funds. This would lead to an even higher APV.

Let us now analyze the impact of governmental priorities on other factors affecting the APV of a project. A project being in a sector which is a high priority area for the foreign government may result in one or more of the following:

- A higher amount of blocked funds getting activated.
- More profits being permitted to be repatriated to the foreign parent company.
- Lower taxes (which would affect the project profitability only when these rates are still higher than the domestic tax rates faced by the parent company).
- A higher depreciation allowance resulting to a higher depreciation tax shield.
- A larger concessionary loan and/or a lower interest rate charged on the loan.

Such treatment would result in an increase in the APV, and hence, the economic viability of a project. In such a scenario, if two different projects with similar commercial viability are being considered by a firm, the fact that one of them is in a sector which is a priority sector for the foreign government, may tilt the decision in its favor. Here, the importance of the choice of the discount factors comes to the fore. Suppose the non-priority sector project is one which enjoys a higher depreciation than the priority-sector project and also suppose that this higher depreciation is exactly offset by an annual benefit through lower interest payments due to a concessionary loan being extended to the latter by the foreign government; then the APV of the former project may still be higher than that of the latter, if the discount rate applied to depreciation tax shields is lower than that applied to repayments of the concessionary loan. Hence, the choice of discount rates may make the non-priority sector project more attractive, despite the foreign government extending a concessionary loan to the priority-sector project. This highlights the importance of choosing appropriate discount rates for calculating the adjusted present value of the various components of the cash flow.

Till now, we have been evaluating international projects only from the financial angle. However, in addition to these quantitative aspects, there are several qualitative aspects which need to be considered, especially before undertaking an international project. Some of these are:

Economic Scenario

The current and the future economic scenario of the country in which the project would be based, is very crucial for the profitability of the project. A few of the economic factors which could affect the project's performance are the projected GDP growth rate, the income level in the economy, the projected growth rate of various sectors of the economy, the prevalent and projected interest rates, the inflation rate, the degree of development of financial markets, budget deficit, unemployment rate etc.

Political Scenario

The political ideology of the present government and that of the likely future governments affects an international project's performance in more than one way. The most important factor is the government's general outlook towards FDI. A project in a country which is hostile towards foreign capital is less likely to succeed than one based in a country which welcomes foreign capital. The political ideology of the government is also likely to determine the sectors open to FDI. The government's commitment to introduce and continue with economic reforms also depends on its political ideology. Many economic factors like the budget deficit, money supply, etc., also get directly affected by the government's

policies. Lastly, the political stability or its absence in a country affects the chances of continuity of all the economic policies affecting FDI.

The following indicates the government's decision to abolish Foreign Investment Promotion Board (FIPB), as proposed by the then finance minister Arun Jaitley in the union budget 2017-18 as a move to ease foreign investors in doing business in India.

Abolishment of Foreign Investment Promotion Board[5]

Foreign Investment Promotion Board **(**FIPB), an inter-ministerial body, is the nodal agency responsible for processing of FDI proposals.

The FIPB was formed under the Prime Minister's Office (PMO) in the mid-1990s, under the P.V. Narasimha Rao regime, for the first time, which threw the doors open to foreign investors.

The proposal for abolition of FIPB was approved by the Union Cabinet in its meeting on 24th May, 2017. Subsequent to abolition of the Foreign Investment Promotion Board (FIPB), granting of government approval for foreign investment under the extant FDI Policy and FEMA Regulations was entrusted to the concerned Administrative Ministries/Departments and Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce & Industry, was made the nodal Department.

In FY 2014-15, FDI inflow in India stood at mere USD 45.15 billion, which increased to USD 83.57 billion during the FY 2021-22 despite COVID-19 pandemic and recent Russia-Ukraine conflict. During FY 2021-22 FDI has been reported from 101 countries, whereas, it was reported from 97 countries during previous financial year (2020-21).853 FDI proposals have been disposed off through the Foreign Investment Facilitation Portal (FIF) since abolishment of Foreign Investment Promotion Board (FIPB)

The eleven notified sectors/activities requiring government approval are Mining, Defence/cases relating to FDI in small arms, Broadcasting, Print media, Civil Aviation, Satellites, Telecom, Private Security Agencies, Trading(Single, Multi brand and Food Products), Financial services not regulated or regulated by more than one regulator/ Banking Public and Private (as per FDI Policy) and Pharmaceuticals.

The Department for Promotion of Industry and Internal Trade, Ministry of Commerce & Industry has been given the responsibility of overseeing the applications filed on the Foreign Investment Facilitation Portal and to forward the

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[5] https://pib.gov.in/PressReleasePage.aspx?PRID=1827889#:~:text=Foreign%20Investment%20Facilitation%20Portal%20(FIF,Cabinet%20decision%20to%20abolish%20FIPB
https://fifp.gov.in/AboutUs.aspx

same to the concerned Administrative Ministry. A Standard Operating Procedure (SOP) developed by DIPP in consultation with the concerned Administrative Ministries is being followed for processing of the FDI applications. Approval letters in Standard Format will be uploaded on the Portal itself for the benefit of the Investors. The Guidelines for Investors is the Consolidated FDI Policy circular and Press Notes as updated from time to time at http://dipp.nic.in/policies-rules-and-acts/policies/foreign-direct-investment-policy.

Financing Aspects

Sometimes it becomes very difficult to obtain financing for an international project due to the risks involved. Hence, the availability of finance from domestic and foreign sources becomes an important factor that needs to be considered before such a project can be undertaken.

Check Your Progress - 2

6. What refers to the policy of invoicing purchases and sales transactions between a parent company and its foreign subsidiary on terms favorable to parent company?
   a. Financing structure
   b. Re-invoicing
   c. Currency invoicing
   d. Countertrade
   e. Transfer pricing
7. What is called when profits generated from foreign company operations are transferred to parent company's location?
   a. Repatriation of profits
   b. Blocked funds
   c. Restriction on cash flows
   d. Leading and lagging
   e. Volatility in taxable cash flows
8. In which of the following sectors, foreign investors are allowed up to 74% of FDI divided into two sections allowing up to 49% stake through 'automatic route' and investments above 49% but upto 74% applicable to make investments in India through 'government route'?
   a. Banking public sector
   b. Banking private sector
   c. Asset Reconstruction Companies (ARCs)
   d. Insurance
   e. Infrastructure companies in the securities market

9. What is an extension of Modigliani-Miller approach that measures the present value of the basic cash flows of a project using the all-equity rate of discounting to valuation of a company?
   a. Net present value method
   b. Internal rate of return method
   c. Payback period method
   d. Accounting rate of return method
   e. Adjusted present value method
10. From the following, identify the economic factor that does **not** affect the future profitability of financing projects.
   a. Unemployment rate
   b. GDP growth rate
   c. Inflation rate
   d. Government reforms
   e. Budget deficit

11.8 Summary

- International projects require huge funding.
- Equity and debt are the routes through which the corporates mobilize the funds for their various projects.
- ADRs, GDRs are the equity instruments and there are also various types of debt instruments like bonds, notes, etc. in the market.
- Another important avenue for investment in international projects is FDI.
- Investing money in projects based in foreign countries through FDI can be a very risky and challenging affair.
- Foreign Direct Investment (FDI) is the investment made in physical assets in a foreign country with the management control being vested with the domestic investors.
- Reasons that companies invest in foreign physical assets include: factors such as economies of scale, to reduce trade barriers, to gain comparative advantage for vertical diversification, extend brand equity and protection of brand equity etc.
- Economic reforms facilitated investment norms in FDI and FII modes. It is imperative that while making investments, an estimate is made as to whether the expected returns can be reaped from such investments. This requires the investment to be judged both for the cash flows it is expected to generate, as well as for the associated risks.

- A company may have funds which are blocked in another country due to restrictions on them being remitted. If these funds can be activated and be invested in the new project, the initial outlay for the new project stands reduced accordingly.
- 'Transfer pricing' refers to the policy of invoicing purchase and sale transactions between a parent company and its foreign subsidiary on terms which are favorable to the parent company, thus shifting a part of the subsidiary's rightful profits to the parent.
- Repatriation of profits by subsidiaries to its parent company generally involves a withholding tax being levied by the foreign government.
- Both the quantitative and qualitative evaluation of a project may involve an analysis which considers several factors in addition to those considered by the more commonly used appraisal criteria. A project undertaken after a thorough analysis of these criteria can prove to be a highly rewarding experience.
- The availability of finance plays a vital role, as the domestic and foreign sources become an important factor that needs to be considered before a project is to be undertaken.
- The government has eased FDI regulations in various industries, PSUs, oil refineries, telecom and defence. India's FDI inflows reached record levels during 2020-21.
- FIPB was abolished in 2017 and Foreign Investment Facilitation Portal (FIF) had been initiated

11.9 Glossary

Balance of Payments (BoP) is the account showing movements of goods, services and capital between a country and the rest of the world.

Countertrade involves adjustment of value of goods imported against value of goods exported, in terms of an arrangement voluntarily entered between two parties.

Current Account Balance is a part of the balance-of-payments which reflects the net inflow on account of trade in goods, services and transfer payments.

Exchange Rate System is the system which facilitates international payments.

Foreign Direct Investment (FDI) is the investment in physical assets in a foreign country with the operating control being with the investor.

11.10 Self-Assessment Test

1. State the differences between FDI and FII.
2. "Companies invest in foreign physical assets for a number of reasons"- Elucidate.

3. Explain in detail the issues encountering the appraisal norms of Foreign Direct Investments in India.
4. Briefly explain the legal issues regarding profit repatriations in international projects.
5. How does Adjusted Present Value approach play a significant role in evaluating the foreign projects? – Discuss.

11.11 Suggested Readings/Reference Materials

1. Francis Cherunilam, International Business - Text and Cases, 6th Edition, PHI Learning.
2. P G Apte (2020), International Financial Management, McGraw Hill Education (India) Private Limited.
3. Madhu Vij (2021). International Financial Management – Text and Cases. 4th edition. Taxmann
4. Charles W. L. Hill, G. Tomas M. Hult (2021). International Business. 12th edition. McGraw Hill Education (India) Private Limited.
5. Choel S. Eun & Bruce G. Resnick (2022). International Financial Management. 8th edition. McGraw Hill Education (India) Private Limited.
6. K. Aswathappa (2020). International Business. 7th edition. McGraw Hill Education (India) Private Limited.

11.12 Answers to Check Your Progress Questions

1. (d) Physical assets, management control

FDIs are investments made in physical assets like plant and machinery in a foreign country, with the management control being retained by the domestic investor.

2. (a) Economies of Scale

Continuous growth is essential for achieving further economies of scale, which is necessary for any business enterprise to survive in a competitive market.

3. (b) FDI

The foreign investments made in productive assets and investor's participation in management as stakeholders in business enterprises is referred to as FDI.

4. (c) Brand Equity

Some brands enjoy international reputation. The popularity of these brands acts as an incentive for their producers to expand overseas.

5. (c) UNCTAD

The United Nations Conference on Trade and Development (UNCTAD), established in 1964, seeks to maximize the trade, investment and development opportunities of developing countries and to help them face the challenges of globalization.

6. (e) Transfer Pricing

'Transfer pricing' refers to the policy of invoicing purchase and sale transactions between a parent company and its foreign subsidiary on terms which are favorable to the parent company, thus shifting a part of the subsidiary's rightful profits to the parent company.

7. (a) Repatriation of Profits

Several countries impose restrictions on the profit or the capital that can be repatriated by a company to its foreign parent company and only those cash flows which can be repatriated (irrespective of whether they are actually repatriated or not) should be considered.

8. (b) Banking Private sector

Foreign investors can invest up to 74% in an Indian private sector bank, through direct or portfolio investment. The increase in foreign investment limit in the banking sector to 74% includes portfolio investment [that is, Foreign Institutional Investors (FIIs) and Non-Resident Indians (NRIs)], IPOs, private placement, ADRs or GDRs and acquisition of shares from the existing shareholders.

9. (e) Adjusted present Value Method

Adjusted Present Value (APV) approach is an extension of the Modigliani-Miller approach to valuation of a company. It first measures the present value of the basic cash flows of a project using the all-equity rate of discounting.

10. (d) Government reforms

'Government reforms' is not an economic factor influencing the future profitability of international projects, rather it is considered as one of the political factors that is detrimental to international project performance likely affecting its profits.

International Finance

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