Foreign exchange exposure - concepts of foreign currency and exchange rates

Business

Contents Concepts of Foreign Currency and Exchange Rates 2 Concept of Currency Exposure Risk, Translation Exposure, and Economic Exposure 2 Mathematical Illustration 4 Risk Management Techniques 4 References 6 Concepts of Foreign Currency and Exchange Rates The global operations of any multinational require it to actively participate in international trade which causes it to be exposed to a great deal of foreign exchange risks. These companies engages in international trade through foreign exchange forward contracts and options and cross currency swaps to hedge various currency exposures. These exposures primarily include assets, liabilities and bonds denominated in foreign currency. Effective financial management requires identification of risks and taking effective measures in order to curb them. This requires evaluating the exposure of the multinational company and the corresponding risk. International exposure of the multinational companies can be defined as the value of its assets and liabilities, presented in its functional (primary) currency, exposed to the change in the foreign interest rates, exchange rates and inflation rates. Concept of Currency Exposure Risk, Translation Exposure, and Economic Exposure The foreign risk exposure can be classified into two broad categories. Transaction Exposure; and Translation Exposure Transaction exposure can be defined as the risk arising due to the unanticipated change in the exchange rate which affects the cash inflow or outflow at the time of the settlement of an asset or liability. An important factor to consider in these types of risks is that the foreign currency value in such circumstances is fixed and thus these types of risks are also termed as contractual exposure. On the other hand, translation exposure arises due to the operation of the accounting and legislative

standards which requires the foreign currency balances of assets and liabilities appearing in the balance sheet, to be revalued at the closing spot rate. These assets are of the time which is not going to be liquated in the near future. Translation risk, which is also termed as the accounting risk, is basically the related measure of variability. [Grant, K. & Marshall, A. P., 1997] Exchange rate can be defined as the relative price of one currency in terms of other. The exchange rate plays a very significant role in determining the capital flows and investments between international boundaries. In order to exercise prudent financial management, it is of prime importance for the multinationals to forecast the future exchange rates so that they do not suffered exchange losses and incur additional liability. Multinational companies, in order to curb the foreign exchange risk exposure enter into hedging transaction which means reducing or controlling risk. In hedging transaction, the firm take place a position in the future market which is opposite to the one being taken in the spot market. The underlying objective of the hedging is to reduce or limit the risk associated with the change in the exchange rate. For example, if an American company has an obligation to pay ? 100 in month time and currently the exchange rate parity between USA and UK is ? 1 is equal to $1. 5, currently in its principal currency, $, the American company has the obligation of paying $150. Now if the financial managers of the American company forecast that the exchange rate parity between USA and UK will be ? 1 to $2, then the company will be liable to pay $200 and thus will have to pay $50 more due to the fluctuation in exchange rate. In order to cater this situation, the company can enter into a hedging transaction whereby it enters into a transaction where it has to

receive ? 100 in one month, so that the loss on payable is offset by the gain on receivables. There are several types of foreign currency risk hedging. The most common types of foreign currency hedges that can be observed are the foreign currency forward contracts and foreign currency options. In forward contracts, the settlement of the transaction is contracted at a rate which is decided beforehand at a rate which is termed as the forward rate. On the other hand, in foreign currency options, the owner has the right to buy or sell a particular amount of the currency at a rate which is predetermined on the purchase date. There is no obligation in the case of foreign currency options, whereas the forward foreign currency contracts are binding. Other forms of hedges are money market hedge and foreign currency swaps. Mathematical Illustration In the above mentioned case, DGP Inc. records sale of US$ 138, 680 as the parity between the US$ and Euro is 1 EUR is equal to 1. 3868 US$. Now after the end of 30 days, if the interest rate parity moves to 1. 2868USD, then the company would receive 128, 680USD at the time of settlement of the debt and would also record a corresponding exchange loss in the profit and loss account amount to 10, 000 USD i. e. difference between the accounts receivable US$ 138, 680 and cash actually received US$ 128, 680. Similarly, if at the end of 20 days, the exchange rates between Euro and USD moves to 1. 4868 the DGP Inc. would receive 148, 680USD and would also record an exchange gain of 10, 000 USD in its profit and loss account i. e. difference between the accounts receivable US$ 138, 680 and cash actually received US$ 148, 680. Risk Management Techniques Hedging can be regarded as the most commonly used method when it comes to risk aversion and avoidance techniques. In financial terminology, hedge can be

defined as an investment position the primary reason of which is to offset probable losses arising from a related investment position. In general terms, the analogy of hedging can be made with insurance. In insurance people safeguard themselves against a loss that can take place due to any uncertain event that is liable to take place in the future. Although insurance does not averse the risk from taking place, it assists in curtailing the impact of it. In the dynamic financial world of today, hedging is practiced by investment bankers, portfolio managers, individual investors and other corporations. From the look of it, hedging can appear to be quite a simple transaction, but in reality it is quite a complex arrangement. The primary reason for using hedging is to guard against the adverse price movement in the financial markets through the use of instruments. [Haight, T. G., and Kehly, J. C. Jr. (1995),] The following table summarizes the risk and methods used to curtail them. Exposure Hedging Through Exchange rate exposure Forward Contracts, Future Contracts, Foreign Currency Swaps and Options Interest rate Exposure Interest rate swaps and options Commodity rate change exposure Cash Flow Hedges and Commodity Swaps In the mentioned case study, the company can enter into a forward contract where it enter into an agreement with the corresponding party that the settlement of the transaction would take place at the 30 days forward rate of 1. 3868. Now, no matter whatever the exchange rate prevails in the market between EURO and USD, the transaction would take place at 1. 3868. Another example of hedging against the adverse exchange rate movement would be to buy a currency option. Options are better than the forward currency contract as they are not binding and it is upon the discretion of the holder whether or

not to exercise the option. In the mentioned case, the company can buy a put currency option by paying an upfront premium and then wait for the 30th date in order to assess whether the option should be exercised or not.

References Grant, K. & Marshall, A. P., 1997. Large UK Companies and Derivatives. European Financial Management, Vol. 3, pp. 194-208. Haight, T. G., and Kehly, J. C. Jr.(1995), The role of derivatives as an Asset Management Tool, Bankers Magazine, Volume 178, No. 3, May/June, pp. 22-26.