International Business Finance (2014)

Product and financial markets are becoming increasingly global.

World trade has grown faster in the last decades than aggregate world GNP.

In less-developed countries, long-run overseas investments of United States companies have yielded high returns.

Many U.S. multinational corporations (MNC's) [A corporation with holdings and/or operations in more than one country] have significant assets, sales, and profits attributable to foreign investment.

Many foreign MNC's have significant operations in the U.S.

Many firms, investment companies, and individuals invest in the capital markets of foreign companies. They receive higher returns than those of domestic capital markets, and reduce their portfolio risk through international diversification.

Companies are increasingly raising funds on the Eurodollar market.

Based on the information about the growth of international business, you might be wondering what unique problems are associated with international business.

Multiple currencies, different legal and political environments, different economic and capital markets, and foreign exchange risk are just some of the complexities of international business.

Let's explore some strategies that are employed to address these challenges.

Let's start with an example. Assume that an airline in Argentina buys an airplane with financing from the U.S. manufacturer. The airline has foreign exchange risk. While the Argentinean airline sells its tickets in pesos, the loan payments are due in U.S. dollars. If the value of the dollar increases (it takes more pesos to buy a dollar), the airline may become unable to make the principal and interest payments. If there is default, the manufacturer may encounter problems getting the plane back from Argentina (legal risk).

**Defining Key Terms Related to Exchange Rates**

Before we address our lesson objectives of calculating exchange rates and understanding techniques for reducing exchange risk, you must have an understanding of the key terms related to exchange rates.

Exchange Rates: The price of a foreign currency stated in terms of the domestic or home currency

Indirect Quote: The exchange rate that expresses the number of units of foreign currency that can be bought for one unit of home currency

Spot Transactions: A transaction made immediately in the marketplace at the market price

Direct Quote: The exchange rate that indicates the number of units of the home currency required to buy one unit of foreign currency

**Calculating Exchange Rates with Direct and Indirect Quotes:**

Spot transactions are the trading of one currency for another today. The quoted exchange rate is called a direct quote. It indicates the number of units of the home currency required to buy one unit of the foreign currency. For example, the number of dollars needed to buy one unit of the foreign currency: dollars per pound, dollars per Lira, and so on.

Direct Quote = 1 divided by Indirect Quote

An indirect quote indicates the number of units of a foreign currency that can be bought for one unit of the home currency: For example, pounds per dollar, Yen per dollar, and so on.

Indirect Quote = 1 divided by direct Quote

**Understanding Exchange Rates:**

Foreign exchange rates are determined by market forces for most currencies. These rates are kept consistent across different countries by market players who constantly seek inconsistencies and then take advantage of these until they are eliminated (arbitrage).

Exchange Rates and Arbitrage: When the direct quote and indirect quote are not equal, arbitrage occurs. A trader (arbitrageur [A person involved in the process of buying and selling in more than one market to make riskless profits]) makes a riskless profit by exchanging currency in two markets. Types of arbitrage include simple arbitrage [Trading to eliminate exchange rate differentials across the markets for a single currency, for example, for the New York and London markets], triangular arbitrage [Arbitrage across the markets for all currencies], and covered-interest arbitrage [Arbitrage designed to eliminate differentials across currency and interest rate markets].

Asked Rates and Bid Rates: Banks sell a unit of foreign currency for more than they pay for it. The direct asked rate [The rate a bank or foreign exchange trader "asks" the customer to pay in home currency for foreign currency when the bank is selling and the customer is buying] is greater than the direct bid quote. The difference between the two is the bid-ask spread [The difference between the bid quote and ask quote]. The spread compensates the banks for holding foreign currency and for their conversion services.

Forward Exchange Rates: A forward exchange contract [A contract that requires delivery on a specified future date of one currency in return for a specified amount of another currency] specifies today the rate at which currencies will be exchanged in the future. The forward rate is often quoted at a premium or a discount to the spot rate. This is also referred to as the forward-spot differential [The premium or discount between forward and spot currency exchange rates].

F minus S = premium (F greater than S) or discount (S greater than F)

where F = the forward rate, direct quote, S = the spot rate, direct quote

F minus S divided by S multiplied by 12 divided by n multiplied by 100 = annualized percentage premium (F greater than S) or discount (S greater than F) where n = the number of months of the forward contract.

**Calculating Exchange Rates**:

 An important lesson objective is calculating exchange rates. Can you show mastery by solving this problem?

An American business needs to pay

1. 15,000 Canadian dollars,

2. 1.5 million yen, and

3. 55,000 Swiss francs to businesses abroad.

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| --- | --- | --- |
| **Country** | **Contract** | **$/Foreign Currency** |
| Canada – dollar | Spot | .8437 |
|   | 30-Day | .8417 |
|   | 90-Day | .8395 |
| Japan – yen | Spot | .004684 |
|   | 30-Day | .004717 |
|   | 90-Day | .004781 |
| Switzerland – franc | Spot | .5139 |
|   | 30-Day | .5169 |
|   | 90-Day | .5315 |

**Answer:**







**Exchange Rate Risk**:

 As you know, the concept of risk is a factor in most business decisions. International business also has its risks. Here are three common risks; continue on with the lesson to learn more about the types of activities these risks affect.

Exchange Rate Risk in Trade Contracts: When a contract is written in terms of a foreign currency, exchange rate risk exists. The exact dollar amount is not known. It depends on the exchange rate when the contract is due, and this is variable.

EXAMPLE: Suppose that you buy Japanese puzzles to sell in your store. The maker demands you pay in Yen (100 Yen each). You place the order, and payment must be made in 30 days. When you placed the order, the exchange rate was 100 Yen to $1 (you planned to sell the puzzles at $1.50). When it is time to pay the seller, you learn that the exchange rate has changed to 50 Yen to $1. To buy the 100 Yen to meet your commitment will now cost $2 for each puzzle!

Exchange Rate Risk in Foreign Portfolio Investments: When investing in a foreign security, the exact return on the investment is unknown, and the U.S. dollar exchange rate might have depreciated, thus increasing the risk.

EXAMPLE: Suppose that you buy a 100 Yen bond that earns 10%. The exchange rate is 100 Yen to $1 when you buy it. After one year, you sell the bond and bring back your 110 Yen to the U.S. However, after a year, the exchange rate is 200 Yen to $1. So, instead of $1.10 ($1 plus 10%). You end up with $0.55 (110/200).

Exchange Rate Risk in Direct Foreign Investment: The exchange rate risk of direct foreign investment involves U.S. investment in assets denominated in a foreign currency. All financial reports, including the balance sheet and income statement, reflect amounts of foreign currency. The U.S. company receives its profit in dollars, so the fluctuation in the dollar value of the foreign assets and the fluctuations in the value of the dollar add risk to the investment.

EXAMPLE: This is a variant on exchange risk in foreign investments. The foreign subsidiary may make good profits, but these can be wiped out by foreign exchange risk.

**Exchange Rate Risk Management :**

Exchange rate risk is caused by not knowing the value of the future spot rate today.

Exposure to Exchange Rate Risk:

Transaction Exposure: Transaction Exposure impacts the net total foreign currency transaction whose monetary value was fixed at a time different from when the transaction will actually be completed. The value of receivables, payables, and fixed price sales is impacted by fluctuations in exchange rates.

Translation Exposure: Translation Exposure is actually a paper gain or loss when foreign currency assets and liabilities are translated into the currency of the parent company for accounting.

Economic Exposure: Economic Exposure is the degree to which the economic value of the company can decline as a result of exchange rate changes. It is the total impact of rate changes on the value of the firm.

**Hedging Strategies:**

How can firms eliminate foreign exchange risks? Hedging is the strategy of neutralizing an exposed asset position in a foreign currency with a liability of the same amount and maturity in the same foreign currency.

A hedge [A means to neutralize exchange rate risk on an exposed asset position, whereby a liability of the same amount and maturity is created in a foreign currency] is an effective neutralizer of risk because the gain/loss (caused by changes in the rate of exchange) of a foreign asset is exactly offset by the gain/loss (caused by changes in the rate of exchange) of the foreign liability.

Two forms of hedge are money market hedge and forward-market hedge.

Money-Market Hedge: The exposed position in a foreign currency is hedged by borrowing/lending in the money markets.

Forward-Market Hedge: Match the asset/liability with an offsetting forward contract of equal value and maturity.

Take our example of a U.S. retailer buying Japanese puzzles. If on the day the purchase order was placed, the U.S. retailer had purchased Yen for delivery 30 days forward (forward contract), movement in the spot market would not have resulted in losses.

**Managing Exchange Rate Risk:**

A guiding principle for managing exchange rate risk is that the firm must be careful to base decisions on the optimum benefits for the firm as a whole, and not what is best for individual entities.

Two important risk-reduction techniques are leading and lagging:

Leading:

When holding an asset:

If the currency is appreciating, we should lag (delay) conversion to the domestic currency.

If the currency is depreciating, we should lead (expedite) conversion to the domestic currency.

Lagging:

When holding a liability:

If the currency is appreciating, we should lead (expedite) payment of the liability.

If the currency is depreciating, we should lag (delay) payment of the liability.