International Business 7e

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Chapter 9

The Foreign Exchange Market

Introduction

- A firm's sales, profits, and strategy are affected by events in the foreign exchange market
- The foreign exchange market is a market for converting the currency of one country into that of another country
- The exchange rate is the rate at which one currency is converted into another

The Functions Of The Foreign Exchange Market

The foreign exchange market:

- is used to convert the currency of one country into the currency of another
- provide some insurance against foreign exchange risk (the adverse consequences of unpredictable changes in exchange rates)

Currency Conversion

International companies use the foreign exchange market when:

- the payments they receive for exports, the income they receive from foreign investments, or the income they receive from licensing agreements with foreign firms are in foreign currencies
- they must pay a foreign company for its products or services in its country's currency
- they have spare cash that they wish to invest for short terms in money markets
- they are involved in currency speculation (the short-term movement of funds from one currency to another in the hopes of profiting from shifts in exchange rates)

Insuring Against Foreign Exchange Risk

- The foreign exchange market can be used to provide insurance to protect against foreign exchange risk (the possibility that unpredicted changes in future exchange rates will have adverse consequences for the firm)
- A firm that insures itself against foreign exchange risk is hedging

Insuring Against Foreign Exchange Risk

- The spot exchange rate is the rate at which a foreign exchange dealer converts one currency into another currency on a particular day
- Spot rates change continually depending on the supply and demand for that currency and other currencies

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The _____ is the rate at which one currency is converted into another.

a) Exchange rate
b) Cross rate
c) Conversion rate
d) Foreign exchange market

Insuring Against Foreign Exchange Risk

- To insure or hedge against a possible adverse foreign exchange rate movement, firms engage in forward exchanges
- A forward exchange occurs when two parties agree to exchange currency and execute the deal at some specific date in the future
- A forward exchange rate is the rate governing such future transactions
- Rates for currency exchange are typically quoted for 30, 90, or 180 days into the future

Insuring Against Foreign Exchange Risk

- A currency swap is the simultaneous purchase and sale of a given amount of foreign exchange for two different value dates
- Swaps are transacted between international businesses and their banks, between banks, and between governments when it is desirable to move out of one currency into another for a limited period without incurring foreign exchange rate risk

The Nature Of The Foreign Exchange Market

- The foreign exchange market is a global network of banks, brokers, and foreign exchange dealers connected by electronic communications systems—it is not located in any one place
- The most important trading centers are London, New York, Tokyo, and Singapore
- The markets is always open somewhere in the world—it never sleeps

The Nature Of The Foreign Exchange Market

- High-speed computer linkages between trading centers around the globe have effectively created a single market—there is no significant difference between exchange rates quotes in the differing trading centers
- If exchange rates quoted in different markets were not essentially the same, there would be an opportunity for arbitrage (the process of buying a currency low and selling it high), and the gap would close
- Most transactions involve dollars on one side—it is a vehicle currency along with the euro, the Japanese yen, and the British pound

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The _____ is the rate at which a foreign exchange dealer converts one currency into another currency on a particular day.

a) Currency swap rate
b) Forward rate
c) Specific rate
d) Spot rate

Economic Theories Of Exchange Rate Determination

- Exchange rates are determined by the demand and supply for different currencies.

Three factors impact future exchange rate movements:

- a country's price inflation
- a country's interest rate
- market psychology

Prices And Exchange Rates

- The law of one price states that in competitive markets free of transportation costs and barriers to trade, identical products sold in different countries must sell for the same price when their price is expressed in terms of the same currency
- Purchasing power parity (PPP) theory argues that given relatively efficient markets (markets in which few impediments to international trade and investment exist) the price of a “basket of goods” should be roughly equivalent in each country
- PPP theory predicts that changes in relative prices will result in a change in exchange rates

Prices And Exchange Rates

- A positive relationship between the inflation rate and the level of money supply exists
- When the growth in the money supply is greater than the growth in output, inflation will occur
- PPP theory suggests that changes in relative prices between countries will lead to exchange rate changes, at least in the short run
- A country with high inflation should see its currency depreciate relative to others
- Empirical testing of PPP theory suggests that it is most accurate in the long run, and for countries with high inflation and underdeveloped capital markets

Interest Rates And Exchange Rates

- There is a link between interest rates and exchange rates
- The International Fisher Effect states that for any two countries the spot exchange rate should change in an equal amount but in the opposite direction to the difference in nominal interest rates between two countries
- In other words:

$$(S1 - S2) / S2 \times 100 = i\$ - i¥$$

- where $i\$$ and $i¥$ are the respective nominal interest rates in two countries (in this case the US and Japan), S1 is the spot exchange rate at the beginning of the period and S2 is the spot exchange rate at the end of the period

Investor Psychology And Bandwagon Effects

- Investor psychology also affects exchange rates
- The bandwagon effect occurs when expectations on the part of traders can turn into self-fulfilling prophecies, and traders can join the bandwagon and move exchange rates based on group expectations
- Governmental intervention can prevent the bandwagon from starting, but is not always effective

Summary

- Relative monetary growth, relative inflation rates, and nominal interest rate differentials are all moderately good predictors of long-run changes in exchange rates
- So, international businesses should pay attention to countries' differing monetary growth, inflation, and interest rates

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Which of the following does *not* impact future exchange rate movements?

a) A country's price inflation
b) A country's interest rate
c) A country's arbitrage opportunities
d) Market psychology

Exchange Rate Forecasting

Should companies use exchange rate forecasting services to aid decision-making?

- The efficient market school argues that forward exchange rates do the best possible job of forecasting future spot exchange rates, and, therefore, investing in forecasting services would be a waste of money
- The inefficient market school argues that companies can improve the foreign exchange market's estimate of future exchange rates by investing in forecasting services

The Efficient Market School

- An efficient market is one in which prices reflect all available information
- If the foreign exchange market is efficient, then forward exchange rates should be unbiased predictors of future spot rates
- Most empirical tests confirm the efficient market hypothesis suggesting that companies should not waste their money on forecasting services

The Inefficient Market School

- An inefficient market is one in which prices do not reflect all available information
- So, in an inefficient market, forward exchange rates will not be the best possible predictors of future spot exchange rates and it may be worthwhile for international businesses to invest in forecasting services
- However, the track record of forecasting services is not good

Approaches To Forecasting

There are two schools of thought on forecasting:

- Fundamental analysis draw upon economic factors like interest rates, monetary policy, inflation rates, or balance of payments information to predict exchange rates
- Technical analysis charts trends with the assumption that past trends and waves are reasonable predictors of future trends and waves

Currency Convertibility

- A currency is freely convertible when a government of a country allows both residents and non-residents to purchase unlimited amounts of foreign currency with the domestic currency
- A currency is externally convertible when non-residents can convert their holdings of domestic currency into a foreign currency, but when the ability of residents to convert currency is limited in some way
- A currency is nonconvertible when both residents and non-residents are prohibited from converting their holdings of domestic currency into a foreign currency

Currency Convertibility

- Most countries today practice free convertibility, although many countries impose some restrictions on the amount of money that can be converted
- Countries limit convertibility to preserve foreign exchange reserves and prevent capital flight (when residents and nonresidents rush to convert their holdings of domestic currency into a foreign currency)
- When a country's currency is nonconvertible, firms may turn to countertrade (barter like agreements by which goods and services can be traded for other goods and services) to facilitate international trade

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When a government of a country allows both residents and non-residents to purchase unlimited amounts of foreign currency with the domestic currency, the currency is

a) Nonconvertible
b) Freely convertible
c) Externally convertible
d) Internally convertible

Implications For Managers

- Firms need to understand the influence of exchange rates on the profitability of trade and investment deals
- There are three types of foreign exchange risk:

1. Transaction exposure
2. Translation exposure
3. Economic exposure

Transaction Exposure

- Transaction exposure is the extent to which the income from individual transactions is affected by fluctuations in foreign exchange values
- It includes obligations for the purchase or sale of goods and services at previously agreed prices and the borrowing or lending o funds in foreign currencies

Translation Exposure

- Translation exposure is the impact of currency exchange rate changes on the reported financial statements of a company
- It is concerned with the present measurement of past events
- Gains or losses are “paper losses” –they’re unrealized

Economic Exposure

- Economic exposure is the extent to which a firm's future international earning power is affected by changes in exchange rates
- Economic exposure is concerned with the long-term effect of changes in exchange rates on future prices, sales, and costs

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The extent to which a firm's future international earning power is affected by changes in exchange rates is called

a) Accounting exposure
b) Translation exposure
c) Transaction exposure
d) Economic exposure

Reducing Translation And Transaction Exposure

To minimize transaction and translation exposure, firms can:

- buy forward
- use swaps
- leading and lagging payables and receivables (paying suppliers and collecting payment from customers early or late depending on expected exchange rate movements)

Reducing Translation And Transaction Exposure

- A lead strategy involves attempting to collect foreign currency receivables early when a foreign currency is expected to depreciate and paying foreign currency payables before they are due when a currency is expected to appreciate
- A lag strategy involves delaying collection of foreign currency receivables if that currency is expected to appreciate and delaying payables if the currency is expected to depreciate
- Lead and lag strategies can be difficult to implement

Reducing Economic Exposure

To reduce economic exposure, firms need to:

- distribute productive assets to various locations so the firm's long-term financial well-being is not severely affected by changes in exchange rates
- ensure assets are not too concentrated in countries where likely rises in currency values will lead to damaging increases in the foreign prices of the goods and services the firm produces

Other Steps For Managing Foreign Exchange Risk

In general, firms should:

- have central control of exposure to protect resources efficiently and ensure that each subunit adopts the correct mix of tactics and strategies
- distinguish between transaction and translation exposure on the one hand, and economic exposure on the other hand
- attempt to forecast future exchange rates
- establish good reporting systems so the central finance function can regularly monitor the firm's exposure position
- produce monthly foreign exchange exposure reports

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Firms that want to minimize transaction and translation exposure can do all of the following except

a) buy forward

b) have central control of exposure

c) use swaps

d) lead and lag payables and receivables