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ACCA F9

Financial Management (FM)

财务管理

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1 Introduction of foreign currency risk

2 Foreign currency risk management

Some important definitions:

Exchange rate: the rate at which one country's currency can be traded in exchange for another country's currency.

Spot rate: the exchange rate currently offered on a particular currency for immediate delivery.

Forward rate: exchange rate set now for currencies to be exchanged at a future date.

Exchange rate 由对货币的供给和需求决定

Bid price (buying price) & ask price (selling price)

Foreign currency risk:
Currency risk is the risk of changes in an exchange rate or in the foreign exchange value of a currency. It is a two-way risk.

The currency risk occurs in 3 ways:
- **Translation risk**: the risk that the organization will make exchange losses when the accounting results of its foreign branches or subsidiaries are translated into the home currency.
- **Transaction risk**: the risk of adverse exchange rate movements occurring in the course of normal international trading transactions.
- The risk is faced by (i) exporters who invoice in a foreign currency and (ii) importers who pay in a foreign currency
- **Economic ris**k: This refers to the effect of exchange rate movements on the international competitiveness of a company and refers to the effect on the present value of longer term cash flows

The causes of exchange rate fluctuations

——currency supply and demand

Supply and demand for currencies are in turn influenced by:

- The rate of inflation, compared with the rate of inflation in other countries
- Interest rates, compared with interest rates in other countries
- The balance of payments in goods and services
- Transactions of a capital nature, such as inward or outward foreign investment
- Sentiment of foreign exchange market participants regarding economic prospects
- Speculation
- Government policy on intervention to influence the exchange rate

Interest rate parity:

Interest rate parity is a method of predicting foreign exchange rates based on the hypothesis that the difference between the interest rates in the two countries should offset the difference between the spot rates and the forward foreign exchange rates over the same period.

No arbitrage opportunity

$$F_0 = S_0 \times \frac{(1+i_c)}{(1+i_b)}$$

F_0 = forward rate

S_0 = current spot rate

i_c = interest rate in country c (the overseas country) up to the future date

i_b = interest rate in country b (the base country) up to the future date

Using interest rate parity to forecast future spot exchange rates:

$$\frac{1+i_c}{1+i_b} = \frac{\text{Forward rate}}{\text{Spot rate}} = \frac{\text{Expected future exchange rate}}{\text{Spot rate}}$$

Example:

A Canadian company is expecting to receive Kuwaiti dinars in one year's time. The spot rate is Canadian dollar 5.4670 per 1 dinar. The company could borrow in dinars at 9% or in Canadian dollars at 14%. There is no forward rate for one year's time. Predict what the exchange rate is likely to be in one year.

Purchasing power parity:
Purchasing power parity theory states that the exchange rate between two currencies is the same in equilibrium when the purchasing power of currency is the same in each country.

$$S_1 = S_0 \times \frac{(1+h_c)}{(1+h_b)}$$

S_1= expected spot rate
S_0= current spot rate
h_c= expected inflation rate in country c (a foreign country)
h_b = expected inflation rate in country b (the investor's country)

The Fisher effect:
According to the international Fisher effect , nominal interest rate differentials between countries provide an unbiased predictor of future changes in spot exchange rates.

$$\frac{1 + i_a}{1 + i_b} = \frac{1 + h_a}{1 + h_b}$$

i_a is the nominal interest rate in country a
i_b is the nominal interest rate in country b
h_a is the inflation rate in country a
h_b is the inflation rate in country b

Risk and risk management:

Risk management describes the policies which a firm may adopt and the techniques it may use to manage the risks it faces.

Exposure means being open to or vulnerable to risk.

Firstly, a business may wish to reduce risks to which it is exposed to acceptable levels.

Secondly, a business may wish to avoid particular kinds of risks.

Risk management method:
- Matching receipts and payments

- Matching assets and liabilities

- Leading and lagging

Lead payments (payments in advance for goods purchased in a foreign currency)

Lagged payments (delaying payments beyond their due date for goods purchased in a foreign currency)

- Netting

Netting is a process in which credit balances are netted off against debit balances so that only the reduced net amounts remain due to be paid by actual currency flows.

Forward exchange contracts:
A forward exchange contract is a contract made now for the purchase or sale of a quantity of currency in exchange for another currency, for settlement at a future date, and at a rate of exchange that is fixed in the contract.

Characteristics:
- An immediately firm and binding contract, eg between a bank and its customer
- For the purchase or sale of a specified quantity of a stated foreign currency
- At a rate of exchange fixed at the time the contract is made
- For performance (delivery of the currency and payment for it) at a future time which is agreed when making the contract.

Foreign Currency Risk Management

The purpose of a forward contract is to fix an exchange rate now for the settlement of a transaction at a future date.

Forward exchange rates are determined by the current spot rate and differences in interest rates between the two currencies.

When a currency is more expensive forward than spot, it is quoted forward 'at a premium' to the spot rate.
When a currency is cheaper forward than spot, it is quoted forward 'at a discount' to the spot rate.

A company from Northland is expecting to receive Southland Krone in one year's time. The spot rate is Northland dollar 3.4670 per 1 Krone. The company could borrow in Krone at 8% or in Northland dollars at 13%. There is no forward rate for one year's time.

What would interest rate parity predict the exchange rate to be in one year?

A 0.1734
B 3.3136
C 3.6275
D 5.2251

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Thank You!