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FOREIGN EXCHANGE RATE

27.1 INTRODUCTION

In the last lesson, you have read about exports and imports of goods and services which constitute foreign trade of a country. A country makes payments for what it imports and it receives payments for what it exports. Since different countries have different currencies, such payments need conversion of currencies. In this lesson, you will learn how this conversion takes place, what is foreign exchange rate, how is it determined and what are the causes and effects of changes in foreign exchange rates.

27.2 OBJECTIVES

After going through this lesson, you will be able to:

- state the meaning of foreign exchange rate;
- state how foreign exchange rate is determined;
- distinguish between fixed exchange rate and market determined exchange rate;
- state the causes of changes in foreign exchange rate;
- state the effects of changes in foreign exchange rate.

27.3 MEANING OF FOREIGN EXCHANGE RATE

Different countries have different currencies. For example, in India the currency is rupee, in U.K. the currency is pound sterling and in USA the currency is dollar. One country's currency cannot be used as a medium of exchange in any other country. This creates problems for international trade. Suppose, an Indian trader wants to import some goods from U.K. The trader in U.K. from whom the Indian trader wants to buy goods, will quote the price in his country's currency i.e. Pounds. Suppose, he quotes the price as £10 per unit. The Indian trader must know the price in Rupees because a price expressed in Pounds is irrelevant for him. For this, he must convert the price expressed in Pounds into Rupees. £10 will be equal to how many rupees will depend upon the exchange rate between Pound and Rupees. This exchange rate is called the foreign exchange rate.

The need for foreign exchange rate also arises while making payments for imports or receiving payments for exports. When an Indian trader buys goods from an American trader, American trader would accept payments in Dollars whereas the Indian trader has rupees to pay. So the Indian trader will have to purchase dollars with rupees. What is the price of one Dollar in Rupees? In other words, what is the exchange rate between Dollar and Rupee? From where will he buy the Dollars? These are very important questions which we will answer in the next section of this lesson. However, it must have been clear to you that foreign exchange rate is the rate at which two currencies can be exchanged. These exchange rates would be different for different currencies.

Over the years the currencies of some countries have become acceptable to all the countries such as US $ and £ sterling etc. It does not mean that currencies of these countries are legal tenders in the world. It only means that these are acceptable to other countries for payments of their exports. For example, exporters from India accept payments in US $ or in £ sterlings.

Most of the developing countries' imports are more than their exports, so they face a problem of foreign exchange. Their receipts in foreign currencies i.e. foreign exchange, fall short of the payments they have to make in foreign currencies. This problem is discussed in details in lesson No. 28B.

POINTS TO REMEMBER

- For international trade, it is necessary to determine the exchange rate between the currency of a country with the currencies of other countries.
- Foreign exchange rate is the rate at which one currency is exchanged with other currency.

INTEXT QUESTIONS 27.1

State whether the following statements are true or false :

(i) Each foreign currency has an exchange rate with the currency of a given country.

(ii) It is not possible to do foreign trade without exchange rate.

(iii) Currency of every country is medium of exchange in other countries.

27.4 HOW IS FOREIGN EXCHANGE RATE DETERMINED?

As explained earlier, the foreign exchange rate is nothing but the price of one currency in terms of other currency. There are primarily two ways of determining the foreign exchange rate:

(a) Fixed by the Central Bank of a country.

(b) Determined by the foreign exchange market.

27.5 FIXED FOREIGN EXCHANGE RATE

When the exchange rate between a country's currency and foreign currency is fixed by the monetary authority (Central Bank) of that country, it is called **fixed foreign exchange rate**. In India till 1991, the foreign exchange rate used to be fixed by the Reserve Bank of India (Central Bank of the country). We will not discuss the mechanism of fixation of foreign exchange rate by the Reserve Bank of India as it is not required at this stage of learning. The foreign exchange rate fixed by the Reserve Bank of India is called the fixed exchange rate. However, it does not mean that this rate does not change. It only means that only the central bank can change it. In fact a change in the foreign exchange rate may be helpful in increasing exports and decreasing imports. The Reserve Bank of India not only fixes the foreign exchange rate, it also controls and regulates inflow and outflow of foreign exchange. The exporters were required to surrender their receipts of foreign exchange as payments for exports to authorised dealers and get rupee in exchange at a fixed rate. Imports were also rigidly controlled as it results in outflow of foreign exchange. All licenced importers could get foreign exchange from authorised dealers at the fixed rate. All these measures were necessary to conserve India's foreign exchange reserve which were very limited and to avoid the problem of shortage of foreign exchange. These strict exchange controls helped in preventing the misuse of available foreign exchange reserves and utilising them for importing only essential goods.

The Reserve Bank changed the fixed exchange rate many a times in order to promote exports and discourage imports. This was done by lowering the value of domestic currency in terms of a foreign currency. This is called **devaluation.**

27.6 DEVALUATION

(i) Meaning of devaluation

Devaluation means a fall in the value of domestic currency in terms of foreign currency/currencies. For example, suppose the exchange rate between rupee and dollar is Rs. 25= $1. If this exchange rate is fixed at Rs. 30 = $1 then it is called devaluation of rupee. Earlier Rs. 25 could purchase a dollar and now more rupees (Rs. 30) are required to get a dollar. So the value of rupee in terms of dollar has declined.

(ii) Need for devaluation

When the foreign exchange rate is fixed by the Central Bank of a country, the Central Bank sometimes devalues its currency in terms of foreign currency. This is done primarily to promote exports and reduce imports so that inflow of foreign exchange from exports may increase and outflow of foreign exchange on account of import may decrease. This is one of the ways of correcting the adverse balance of payments situations about which you will read in lesson No. 28B.

Let us take an example to understand the effects of devaluation on exports and imports. Suppose, an Indian trader exports to USA. Suppose, the exchange rate of rupee and dollar is 20:1 i.e. Rs. 20 = $1. This means that a U.S. trader can buy from Indian trader goods worth Rs.20 by paying one dollar. Suppose, the rupee is devalued i.e. the exchange rate between rupee and dollar is changed from Rs.20 = $1 to Rs. 25 = $1. Now the American trader can buy from Indian trader goods worth Rs. 25 by spending one dollar. So, for him Indian goods have become cheaper and he may buy more of these goods. Hence, exports will

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Devaluation has an adverse effect on imports. Taking the same example, when the exchange rate between rupee and dollar is 20:1, an Indian importer has to spend Rs.20 for importing goods worth $1 from USA. After devaluation the exchange rate is Rs.25 = $1. Now the importer has to spend Rs.25 for importing goods worth $1 from USA. So imports have become costlier. This may reduce the imports.

However, devaluation will increase exports and reduce imports only under certain conditions. These conditions are:

(i) When exports are cheaper, their demand must increase and when imports are costlier, their demand must decrease.

(ii) It should be possible for exporter to increase production to meet the increased demand. Similarly, the production of import substitutes should also increase in order to make up for the reduced imports.

(iii) The prices in the domestic markets of export and import goods should not rise.

(iv) Fiscal deficit must be checked.

POINTS TO REMEMBER

- Foreign exchange rate is determined in two ways :
  (i) by the Central Bank and (ii) by demand and supply forces in the foreign exchange market.
- When the Central Bank determines the exchange rate, it is called the Fixed Exchange Rate.
- Earlier India had this type of exchange rate system.
- Besides determining exchange rate, Reserve Bank of India also controls and regulates inflows and outflows of foreign exchange.
- The central bank makes changes in foreign exchange rate keeping in mind the needs of the economy.
- When the value of domestic currency in terms of foreign currency is reduced it is called devaluation.

INTEXT QUESTIONS 27.2

Fill in the blanks with appropriate words given in the brackets :

(i) Fixed exchange in the fixed exchange system is determined by ______________. (Central Bank, government)

(ii) The foreign exchange rate determined by the Central Bank can ______________.

(be changed. not be changed)

(iii) Reserve Bank of India has made changes in exchange rate to ______________ net inflow of foreign exchange. (increase, reduce)

(iv) Devaluation means ______________ the value of the country's currency in terms of foreign currencies. (lowering, raising)

27.7 MARKET DETERMINED FOREIGN EXCHANGE RATE

When foreign exchange rate is determined in foreign exchange market by demand for and supply of foreign currencies, it is generally called **flexible exchange rate**. Let us first understand the meaning of foreign exchange market and sources of demand and supply of foreign exchange.

(i) Foreign Exchange Market

Foreign exchange market is a market in which foreign currencies are bought and sold. Those who deal in foreign currencies are authorised dealers. They are authorised by the monetary authority i.e. the central bank of a country. The price of foreign currencies in such a market is determined by the demand and supply of foreign currencies.

(ii) Demand for Foreign Exchange

Demand for foreign currency is made by the importers to make payment for imports and by the people who wish to go abroad. Just as the demand for a commodity is affected by its price, the demand for foreign currency is also affected by its price. For example, if the price of British pound in terms of Indian Rupee falls, its demand may rise. And if its price rises, its demand may fall.

Thus like the demand curve of a commodity, the demand curve for foreign currency is downward sloping from left to right.

We can construct a hypothetical demand schedule for foreign currency. Such a schedule is given in table 27.1.

Table 27.1

Demand Schedule for Foreign Currency (British Pound)

Price of £1 (in Rupees) (foreign exchange rate)	Quantity demanded of £
Rs. 30	£5,000
Rs. 40	£4,000
Rs. 50	£3,000
Rs. 60	£2,000
Rs. 70	£1,000

The table 27.1 shows that as the price of a pound rises from Rs. 30 to Rs. 40 and above, the demand for pounds falls. Similarly it also shows that as the price of pound falls from Rs. 70

to Rs. 60 and below, the demand for pounds rises. On the basis of this table we can draw a demand curve for pounds as shown in figure 27.1.

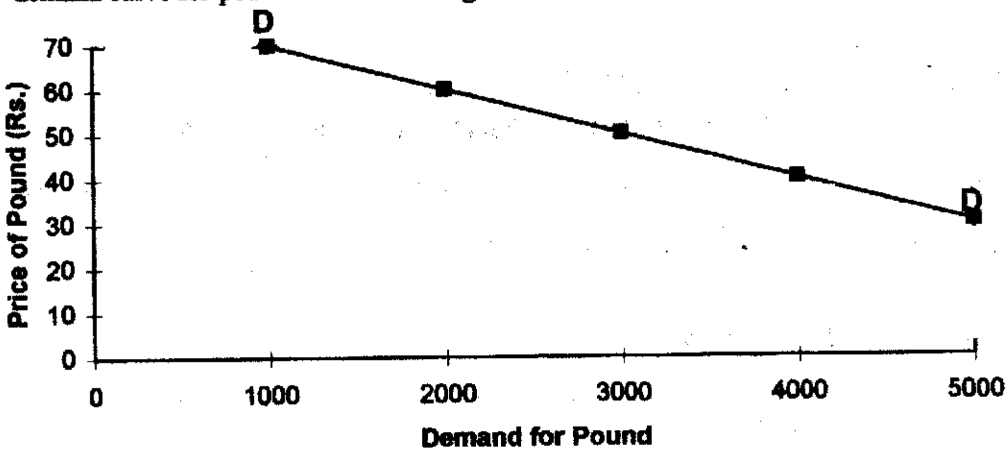

Figure 27.1 : Demand for Foreign Currency

(iii) Supply of Foreign Currency

Foreign currencies are also like commodities. The supply of a foreign currency is affected by its price in the same way as the supply of a commodity is affected by its price. A rise in its price leads to a rise in its supply and a fall in its price leads to a fall in its supply.

(iv) Sources of Supply of Foreign Exchange

Exporters are the main source of supply of foreign exchange. They receive foreign exchange as payment for the goods and services exported by them. For example, when an Indian seller exports its goods to UK, he receives payments in British pounds. The amount of British pounds received by our exporters as a whole constitute the supply of British pounds in our country. The total supply depends upon the value of exports. Similarly the British tourists coming to our country bring British pounds and sell them for rupees for meeting their expenses while in India. So they are also the source of supply of British pound in India. Remittances by Non-Resident Indians in U.K. and direct investment by Britishers in India are other sources of pounds in India.

We can construct a hypothetical supply schedule of foreign currency as shown in table 27.2.

Table 27.2

Supply Schedule of Foreign Currency (British Pound)

Price of £ 1	Quantity supplied of £
Rs. 30	£ 1,000
Rs. 40	£ 2,000
Rs. 50	£ 3,000

Rs. 60	£ 4,000
Rs. 70	£ 5,000

The table 27.2 shows that when the price of pound in rupees rises the quantity supplied of pounds rises and when price of pound falls its quantity supplied falls. On the basis of this table we can draw a supply curve of foreign currency (£) as shown in figure 27.2.

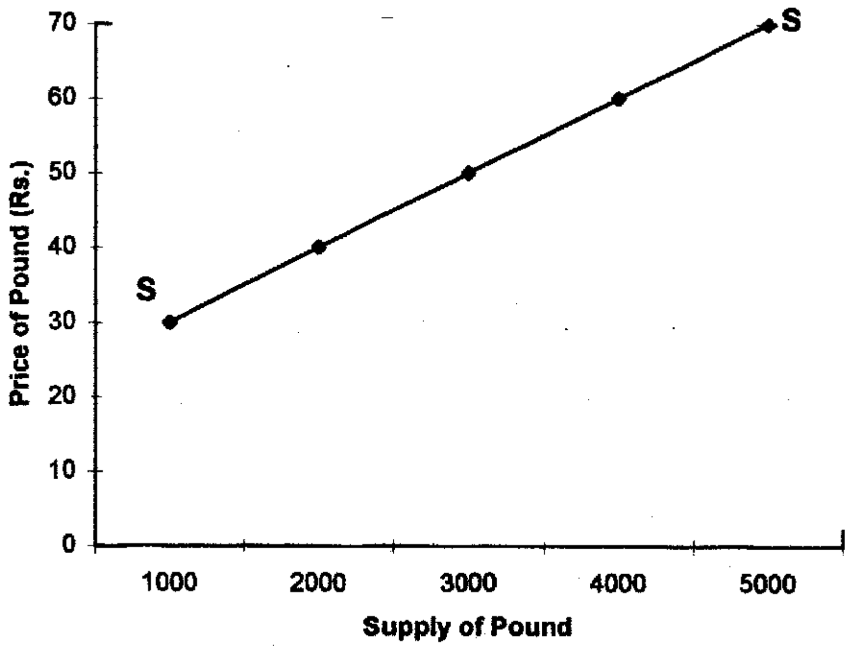

Figure 27.2 : Supply of Foreign Currency

(v) Determination of Equilibrium Foreign Exchange Rate

The price of a foreign currency when determined in the foreign exchange market, is determined in the same way as the price of a commodity is determined in the market. It is determined by the forces of demand and supply. Let us show the demand and supply schedules of foreign currency (£) as given in table 27.1 and 27.2 in one table. This is shown in table 27.3. Figure 27.3 is drawn on the basis of table 27.3.

DD is the demand curve and SS is the supply curve of foreign currency (£). At a price of Rs. 50 per pound the demand and supply of pounds are equal. It is shown by point E, the point of intersection of demand curve and supply curve.

Table 27.3

Price of foreign currency in rupee	Quantity demanded of foreign currency	Quantity supplied of foreign currency
Rs. 30	£ 5,000	£ 1,000
Rs. 40	£ 4,000	£ 2,000
Rs. 50	£ 3,000	£ 3,000

Rs. 60	£ 2,000	£ 4,000
Rs. 70	£ 1,000	£ 5,000

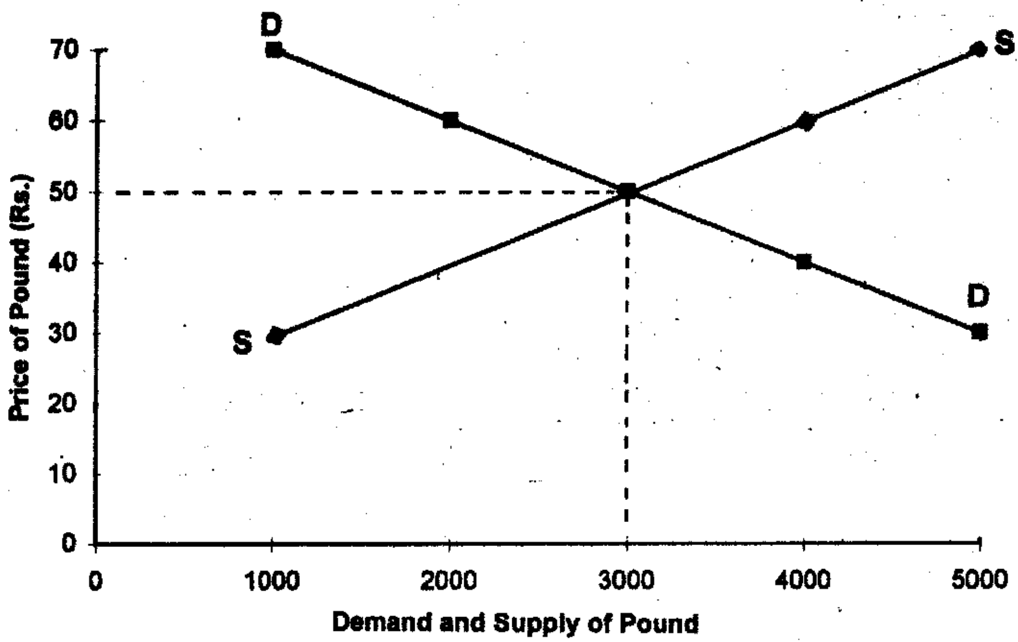

Figure 27.3 : Equilibrium Foreign Exchange Rate

The equilibrium exchange rate for £ 1 is Rs. 50.

For any exchange rate higher than equilibrium exchange rate, the supply of foreign currency is greater than its demand and for any exchange rate lower than the equilibrium rate, supply would be less than demand. In such situation, price, demand and supply of foreign currency will change and these changes will restore the equilibrium rate. These changes are similar to the changes discussed in lesson No. 17. The only difference is that in lesson No. 17 these were in the context of a commodity whereas here these are in the context of foreign exchange.

POINTS TO REMEMBER

- The market in which foreign currency is bought and sold is called foreign exchange market. The rate is determined by the demand and supply of foreign exchange.
- Like a good, there is inverse relation between foreign exchange rate and its demand, and positive relation between foreign exchange rate and its supply. The rate at which demand and supply of foreign exchange are equal is called equilibrium foreign exchange rate.

INTEXT QUESTIONS 27.3

State whether the following statements are true or false :

(i) The market situated in foreign countries is called the foreign exchange market.

(ii) In the foreign exchange market goods are traded with foreign countries.
(iii) The rate at which imports and exports are equal is the equilibrium exchange rate.
(iv) The demand and supply of foreign exchange determines the equilibrium exchange rate.

27.8 CHANGES IN EQUILIBRIUM RATE OF EXCHANGE

As we have mentioned above that equilibrium exchange rate is one at which demand for and supply of foreign currency is equal. However, this equilibrium rate may itself change. Such a change will take place when demand for a foreign currency or its supply or both may increase or decrease at a given equilibrium rate. (Such changes result in changes in demand and supply schedules.)

As we know that imports create demand for foreign currency and exports create the supply of foreign currency. Therefore, any change in imports, in their quantity or price or both, changes demand for foreign currency, and any change in exports, changes supply of foreign currency. Such changes will shift the demand curve or supply curve or both as the case may be. These shifts in demand and supply curves are similar to the shifts in the demand and supply curves of a commodity, which you studied in lesson No. 17. The effects of these changes on the equilibrium price of foreign currency are also similar to the effects of such changes in case of a commodity. (Refer to lesson No. 17).

The demand and supply of foreign exchange keeps on changing because of changes in exports, imports, foreign investments, foreign tourism etc. As a result of this the equilibrium rate of foreign exchange also keeps on changing. You can read in the daily newspapers the exchange rate of various currencies and notice the changes. The fluctuations in exchange rate may be very wide. Wide fluctuations may adversely affect those engaged in foreign trade and also the economy as a whole. In India, the Reserve Bank of India keeps a watch on these fluctuations. If the foreign exchange rate rises sharply, the Reserve Bank of India intervenes in the foreign exchange market. It enters the market as a supplier of foreign exchange and thus checks the rise in foreign exchange rate. The Reserve Bank of India has a stock of foreign exchange, so it sells foreign exchange in the market and thus increases the supply. Similarly if the foreign exchange rate falls sharply, it indicates that the supply of foreign exchange is greater than demand. In such a situation the Reserve Bank of India increases the demand for foreign exchange by entering the market as a buyer. It will increase its stock of foreign exchange.

A rise in the equilibrium rate of foreign exchange i.e. a rise in the price of, say, dollar in terms of rupees is called **depreciation** of Indian currency. In a regime of fixed foreign exchange rate such a situation was called depreciation. The effect of depreciation of domestic currency would be same as the effects of devaluation of a currency.

POINTS TO REMEMBER

- Change in demand or supply or both of foreign exchange changes equilibrium exchange rate.
- Big fluctuations in the equilibrium exchange rate may harm the interest of those who are engaged in foreign trade and the economy as a whole. To keep these fluctuations in control, the Reserve Bank of India buys and sells foreign exchange in the open market.

INTEXT QUESTIONS 27.4

State whether the following statements are true or false :

(i) The equilibrium rate of foreign exchange does not change.

(ii) Big fluctuations in the equilibrium foreign exchange rates are harmful for the economy.

(iii) The Reserve Bank of India enters the foreign exchange market to reduce fluctuations in the foreign exchange market.

TERMINAL EXERCISE

1. Explain the meaning of foreign exchange rate.
2. Distinguish between fixed exchange rate and market determined foreign exchange rate.
3. Explain how foreign exchange rate is determined in foreign exchange market.
4. What are the causes of changes in foreign exchange rate?
5. What are the effects of changes in foreign exchange rate?

ANSWERS

Intext Questions 27.1

(i) True (ii) True (iii) False

Intext Questions 27.2

(i) Central Bank (ii) be changed (iii) increase (iv) lowering

Intext Questions 27.3

(i) False (ii) False (iii) False (iv) True

Intext Questions 27.4

(i) False (ii) True (iii) True

Terminal Exercise

1. Read section 27.3
2. Read section 27.5 & 27.7
3. Read section 27.7
4. Read section 27.7
5. Read section 27.8