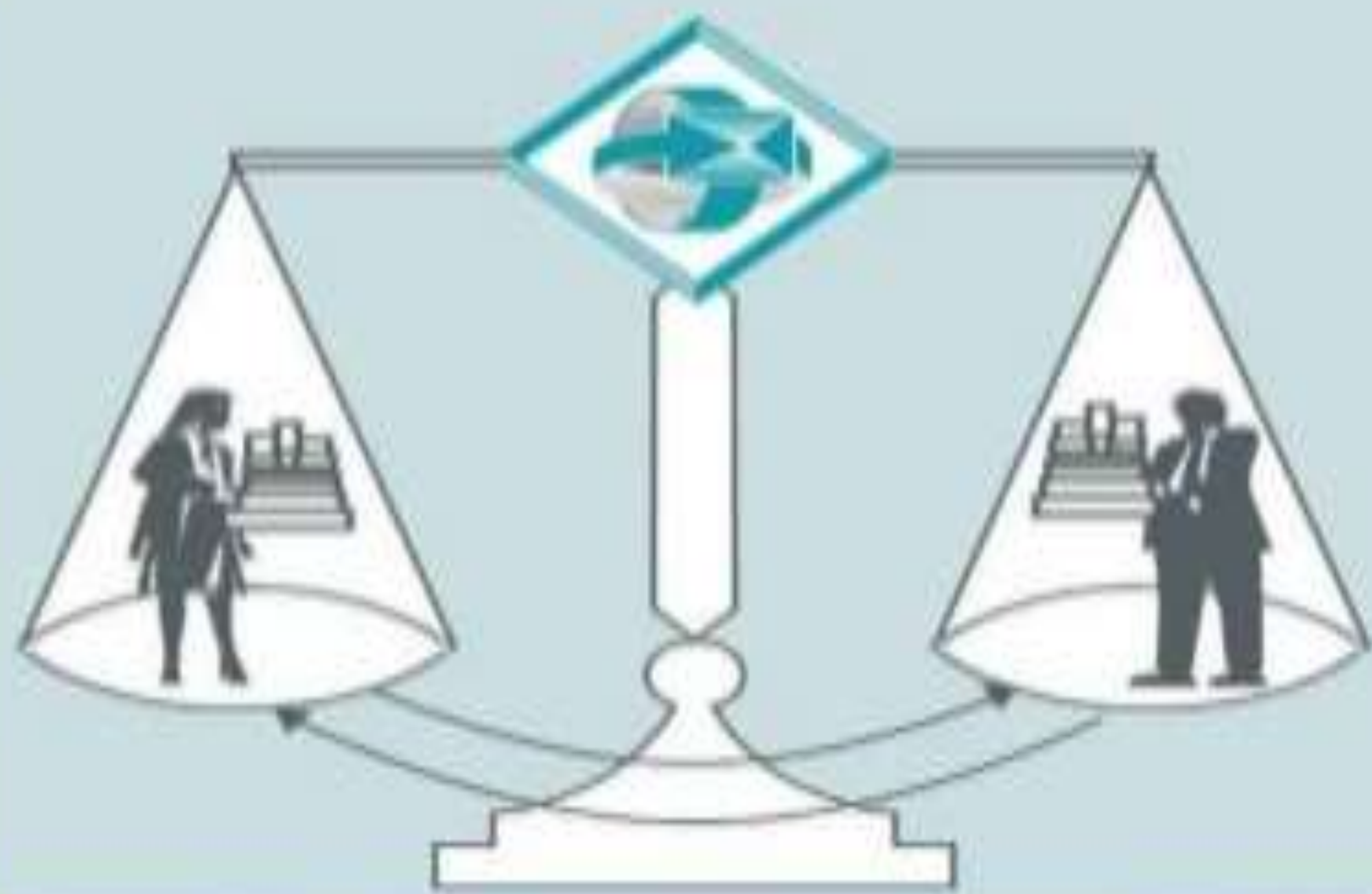
UNIT – IV

Terms of Trade and Gains from Trade–Types-Factors influencing Terms of Trade, Exchange rate: Flexible and Fixed Rate of Exchange–Spot and Forward Foreign Exchange rates–Arbitrage-Purchasing Power Parity Theory-Devaluation-Exchange control.



- Terms of trade (TOT) is a measure of how much imports an economy can get for a unit of exported goods.
- Since, economies typically export and import many goods, measuring the TOT requires defining price indices for exported and imported goods and comparing the two. A rise in the prices of exported goods in international markets would increase the TOT, while a rise in the prices of imported goods would decrease it.
- A country's terms of trade measures a country's export prices in relation to its import prices, and is expressed as:

$$(\text{Index of export price}/\ \text{index of import price}) \times 100$$

jacob viner and meier are follows:

1) Net barter or commodity terms of trade.
2) Gross barter terms of trade.
3) Income terms of trade.
4) Single factorial terms of trade.
5) Double factorial terms of trade.
6) Real costs terms of trade.
7) Utility terms of trade.

OF TRADE

- Commodity terms of trade are expressed in a formula as -

$$TC = PX/pm$$

(Here, TC= commodity terms of trade; PX= index of export prices; pm= index of import prices).

- Commodity terms of trade in different time period can be measured by the following formula:

$$Px1/pm1 \ : \ pxo/pmo$$

(Here, px1= index of export prices in the current year, pm1=index of import price in the current year; pxo=index of export price in the base; pmo=index of import prices in the base year).

GROSS BARTER TERMS OF TRADE

- Gross commodity terms of trade are expressed in a formula as under:

$$TQ = qm/qx$$

(Here, TQ= gross barter terms of trade; qm=quality of imports; QX= quantity of exports.)

- Gross barter or commodity terms of trade in different time periods can be measured as follows:

$$Qm1/QX1 : qmo/qxo$$

(Here, qm1= index of quantity imported in the current year; qx1=index of quantity exported in the current year; qmo=index of quantity imported in the base year; qxo= index of quantity exported in the base year.)

INCOME TERMS OF TRADE

- The income terms of trade is the ratio of index of the prices of exports and index of prices of imports.

$$Ty = tcqx = pxqx/pm \qquad (tc = px/pm)$$

(Here, ty=income terms of trade; tc= commodity terms of trade; px= index of prices of exports; qx=index of quantity exported ; pm=index of prices imports.)

- Income terms of trade are also called capacity to import. It is so because, in the long-run, the value of total export of a country is equal to the value of its total imports.

$$Pxqx = pmqm \quad (pxqx/pm = qm) \text{ [qm= quantity of imports]}$$

SINGLE FACTORIAL TERMS OF TRADE

- Factorial terms of trade depend upon the productive efficiency of the factors of production. The single factorial terms of trade, commodity terms of trade are multiplied by the index of export productivity.

$$Ts = tc \times fx = px/pm \times fx \qquad (tc = px/pm)$$

CRITICISM:

- According to critics, the greatest shortcoming of single factorial terms of trade is that it does not take into consideration potential domestic cost of production of input industries of importing country.

TWO FACTORIAL TERMS OF TRADE

- Double factorial terms of trade takes into account the productivity of the factors of production in the country's exports as well as the productivity of the foreign factors of production used in country's imports.

$$Td = tc \times fx/fm = px/pm \times fx/fm \qquad (td = px/pm)$$

(Here, td=double factorial terms of trade; tc= commodity terms of trade; px= index of prices of exports; fx=index of productivity of export goods industries; pm=index of prices of imports; fm= index of productivity of import goods industries.)

REAL COST TERMS OF TRADE

- Import and export goods are compared according to their utility. Real cost of both import and export is worked out. Real cost terms of trade is calculated by multiplying the single factorial terms of trade with the index of the amount of disutility per unit of productive resource used in producing exports.

$$Tr = ts \times rx = px/pm \times fx \times rx$$

(Here, TR= real cost terms of trade; ts= single factorial terms of trade; px=index of export prices; pm=index of import prices; fx=index of productivity of export goods industries; rx= sacrifice of utility inherent in export.)

CRITICISM:

- Main defect of real cost terms of trade is that it is concerned only with the quantity of foreign goods obtained with the real costs inherent in exports.

THE REAL COST

UTILITY TERMS OF TRADE

- Utility terms of trade is the index of relative utility of import and domestic commodities foregone to produce exports.

$$Tu = tr \times u = px/pm \times fx \times rx \times u$$

(Here, tu=utility terms of trade; tr=real cost terms of trade; px=index of export prices;

- Pm=index of import prices; fx=export productivity; rx= utility foregone to exports.)

CRITICISM:

- it is an unrealistic concept. Utility and disutility cannot be measured precisely. Both concepts are subjective. This concept has no practical significance.

FACTORS INFLUENCING TERMS OF TRADE

1. Reciprocal demand:

(i) Elasticity of demand:

The following effect on terms of trade:

(a) Elasticity of demand of export goods: the demand of exports of a country is less elastic then terms of trade will be in its favour.

(b) Elasticity of demand of import goods: terms of trade will be favourable to a country whose demand for imports is more elastic. On the other hand, if the demand for imports is less elastic, terms of trade will be unfavourable.

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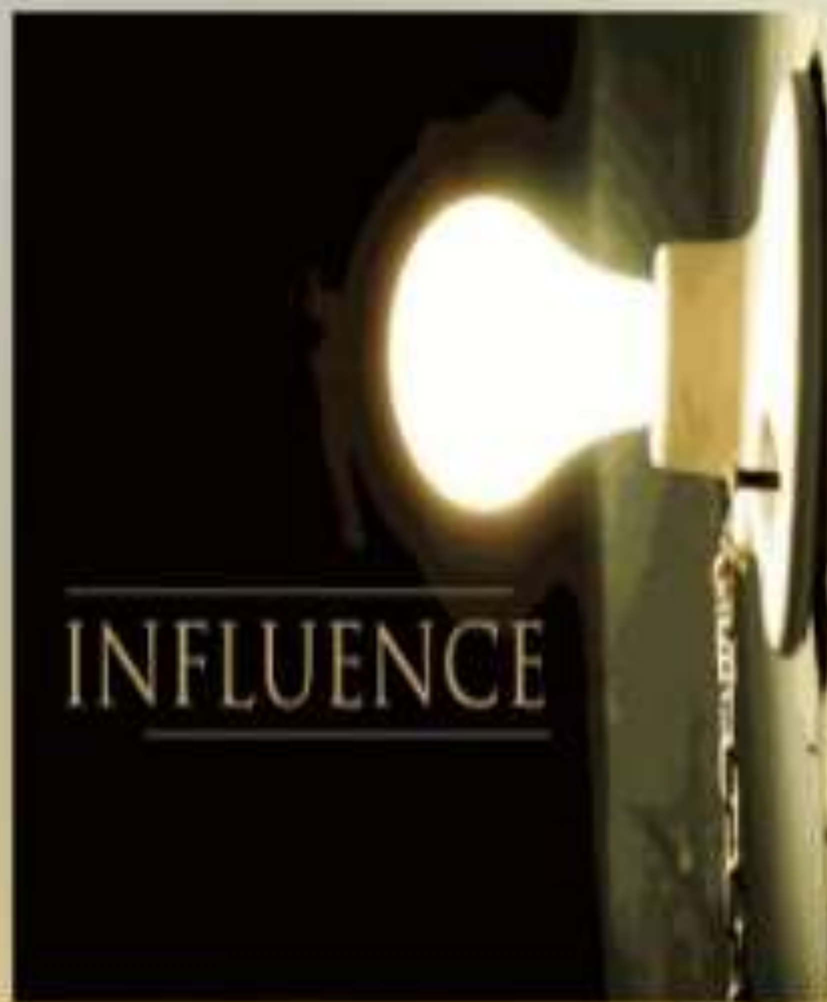


FACTORS INFLUENCING TERMS OF TRADE

(ii) Elasticity of supply:

Elasticity of supply has the following effect on terms of trade:

(a) The supply of export is less elastic terms of trade will be unfavourable and if more elastic the same will be favourable. (b) Supply of imports is less elastic, terms of trade will be favourable and if supply of import is more elastic, terms of trade will be unfavourable

2. Size of demand:

With the increase in demand for the exports of a country, prices of export will increase as against the prices of imports and hence, terms of trade become favourable. If demand for imports increase, their prices will also increase as against the prices of export and so the term of trade become unfavorable.

SIGNIFICANCE OF TERMS OF TRADE

Standard Of Living:

- Changes in the prices of the items we have to import. Imported terms of trade might mean we are able to import cheaper food.

Prices Of Imported Technology:

- Prices of imported technology affect relative prices of capital inputs needed to sustain growth. A weak exchange rate increases the price of import, worsens the terms of trade and makes imports of new technology more expensive.

Balance Of Payments:

- Export and import prices affect the value of trade flows.

What is an Exchange Rate?

- The price of a nation's currency in terms of another currency.
- An exchange rate thus has two components, the domestic currency and a foreign currency.
- For example our domestic currency is the Jamaican Dollars (JMD) and the Foreign Currency can be United States Dollars (USD) or Euros (EUR) just to name a few.

Types of Exchange Rates

We will be exploring three types of Exchange Rates which are:

1. Fixed Exchange Rate
2. Floating/Flexible Exchange Rate
3. Managed Float

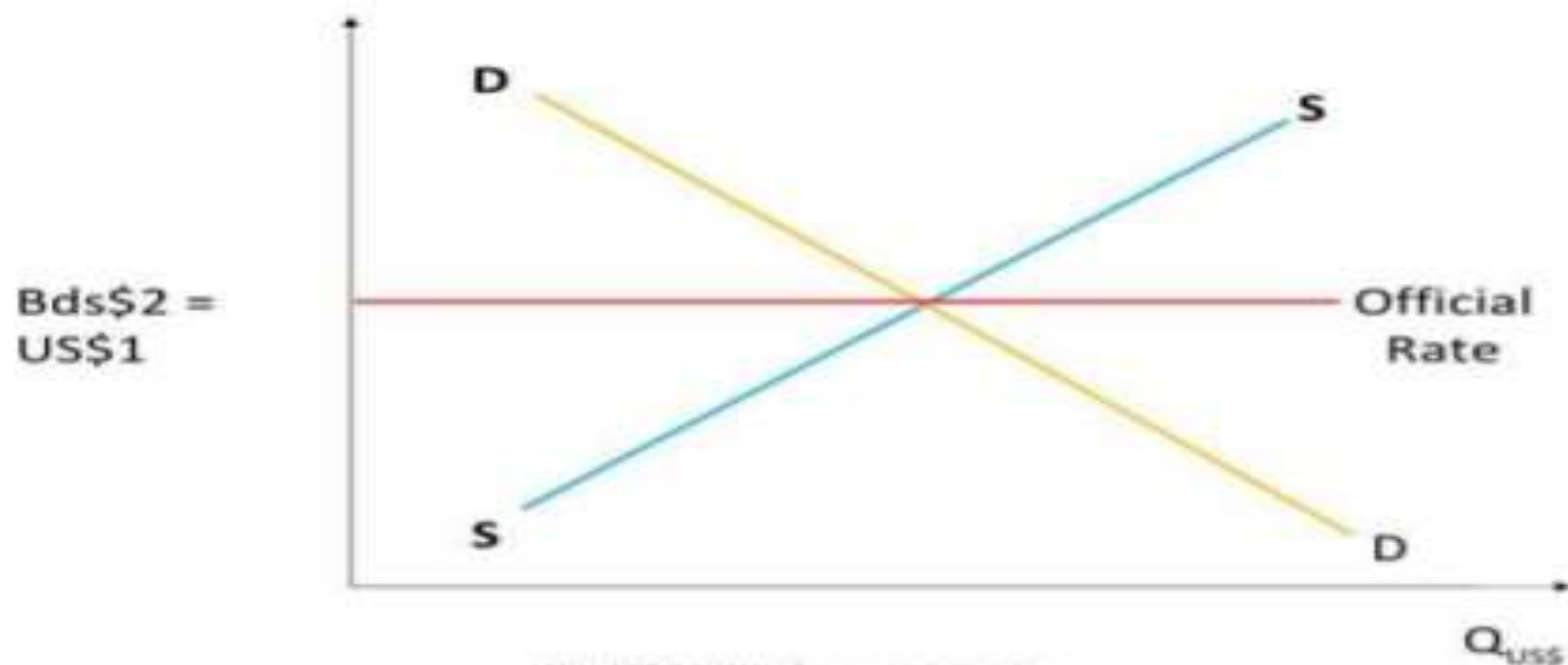
Fixed Exchange Rate

- This is where a Government maintains a given exchange rate over a period of time.
- This could be for a few months or even years.
- In order to maintain the exchange rate at the stated level government uses fiscal and monetary policies to control aggregate demand.

Determination of Fixed Exchange Rate

- In a fixed exchange rate system the XR is set by the government or central bank at a particular rate.
- E.g. BBD to US 2:1.
- The forces of supply and demand do not determine the rate. The central bank holds reserves of US dollars and intervenes in order to keep the exchange rate pegged at that level known as the Official Rate.

Representation of Fixed Exchange Rate



Floating/Flexible Exchange Rate

- A floating exchange rate regime is where the rate of exchange is determined purely by the demand and supply of that currency on the foreign exchange market.

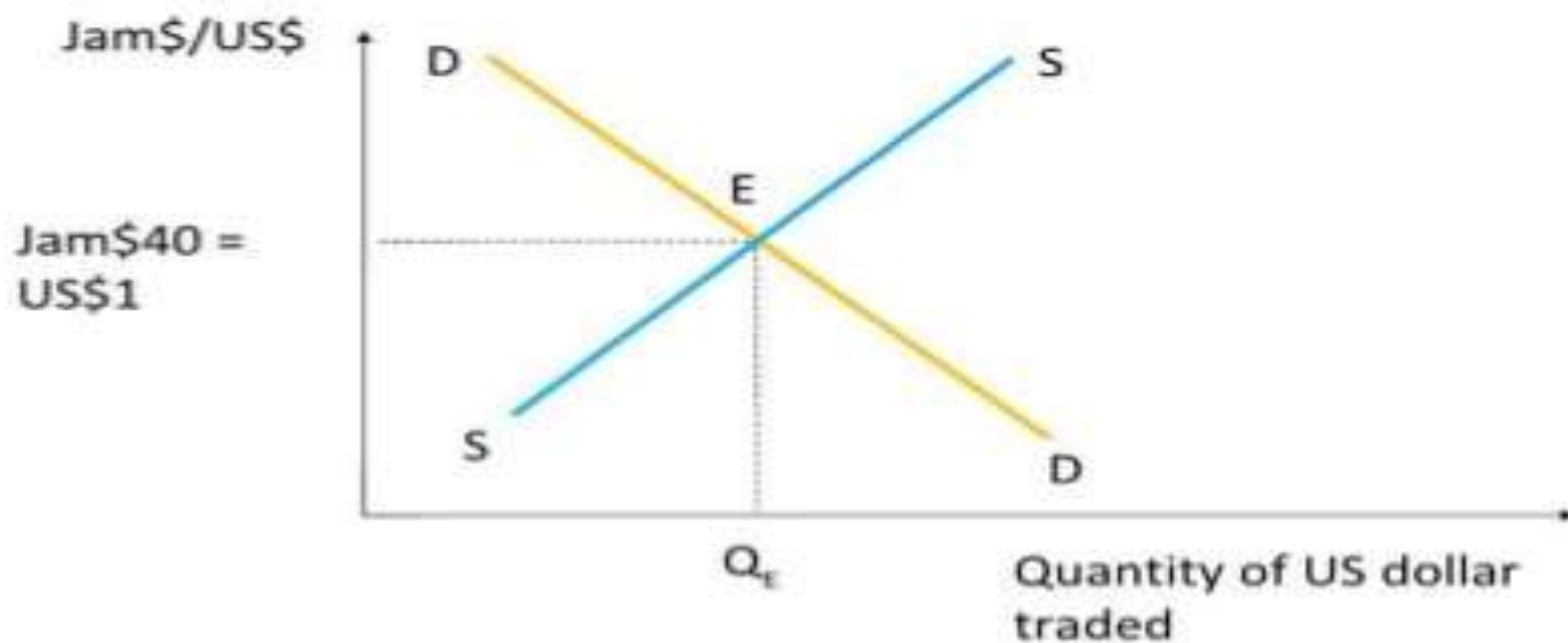
Determination of Floating Exchange Rate

- The value of a currency is allowed to be determined by the forces of demand and supply on the foreign exchange market.
- There is no government intervention.

- Any change in supply or demand for a currency will cause a depreciation or appreciation in the exchange rate.
- An increase in demand for the local currency causes it to appreciate or rise.
- However, if there is a greater demand for the foreign currency the value of the local currency falls or depreciates to the foreign currency.

Representation of Floating Exchange Rate

Do not Pay attention to the current xrate as this was way back in 1999 and just an example



ORGANIZATION OF THE FOREIGN EXCHANGE MARKET

Two Types of Currency Markets

1. Spot Market
2. Forward Market

SPOT MARKET

- In finance, a **spot contract**, **spot transaction**, or simply **spot**, is a contract of **buying or selling commodity**, security or currency for settle ment (payment and delivery) on the spot date, which is **normally two business days after the trade date**. The settlement price (or rate) is called **spot price** (or **spot rate**).

a. commercial banks

b. brokers

c. customers of commercial and central banks

TYPES OF SPOT RATES

- Bid Rate- one currency can be purchased in exchange for another
- Offer Rate- one currency can be sold in exchange for another

TYPES OF SPOT DEALS

- Rand/USD deals
- USD/Foreign currency deals
- Rand/Foreign currency deals
- Foreign currency/Foreign currency deals

Arbitrage

Meaning

Buy from the low priced market and selling at the high priced market to earn profit

Presence

- In all markets
  - Goods market
  - Financial markets
  - Foreign exchange market
  - Labour market?

Foreign exchange arbitrage

- Purchase of a currency in the monetary centre where it is cheaper and selling immediately in the monetary centre where it is more expensive in order to make a profit
- Profit-cost of electronic transfer of currency

quantity of goods and services that can be purchased by the currency

- Thus, value of money is its purchasing power
- Exchange rate can also be mentioned on the basis of this purchasing power
- Exchange rate is the expression of one currency in terms of another currency

Eg INR 60 = $ 1

2. Absence of transportation costs from one market to another (country to another)
3. Free trade across the international market
4. No barriers or controls over international trade like tariffs, taxes, incentives, promotions etc
5. No country is strong enough to influence the exchange rate

The above mentioned practices are termed as frictions in trade and are distortions in free markets

If the above assumptions hold good, law of one price will prevail

Absolute PPP Theory

- In the olden days (1700 -1970) gold formed the basis for determination of the exchange rate because it commanded good demand all over the world
- Today, gold is like any other commodity
- Thus, in the olden days PPP was based on gold prices
- According to the Jamaica Agreement in 1976 gold was demonetized
- The PPP and the exchange rates are not determined or governed by a single commodity like gold
- Now, it comprises of a basket of commodities in which gold is only a commodity

considered.

- The value of commodities in different places may differ according to customs, traditions, culture, believes etc.
- For determining the inflation rates, every country forms a common basket of goods in proportion to their utility to the people
- Based on variations in prices inflationary tendencies are determined.

What is Devaluation?

INTRODUCTION

- **Devaluation means decreasing the value of nation's currency relative to gold or the currencies of other nations. Under it , there is no change in the internal purchasing power of the currency.**
- **For example, Rs 25=1$ (before devaluation)**

  Rs 30=1$ (after devaluation)
- **In modern monetary policy, it is a reduction in the value of currency with respect to those goods, services or other monetary units with which that currency can be exchanged.**

REASONS FOR DEVALUATION

- To boost exports
- To discourage imports
- To correct the balance of payments
- To make adjustments in the currency value

REASONS FOR DEVALUATION

- To reduce debt burdens
- To increase competiveness in the foreign market
- To achieve higher economic growth
- To increase the standard of living

IMPACT ON CONSUMERS

Transport bills set to go up
as costlier crude will force oil firms to raise petrol/diesel prices

Travelling abroad will become costlier
as you will have to pay more in rupee terms

Cost of essentials pushed up
because of persistently falling rupee

INFOGRAPHIC BY: KUSHAL.GROVER@HINDUSTANTIMES.COM

FOREIGN EXCHANGE CONTROL

MEANING :

- **"Foreign Exchange Control"** is a method of state intervention in the imports and exports of the country, so that the adverse balance of payments may be corrected". Here the government restricts the free play of inflow and outflow of capital and the exchange rate of currencies.

DEFINITION :

- **According to Crowther:** "When the Government of a country intervenes directly or indirectly in international payments and undertakes the authority of purchase and sale of foreign currencies it is called Foreign Exchange Control".

Objectives of Foreign Exchange Control:

- **1. Conservation of Foreign Exchange :**

Exchange control may be introduced by the monetary authority to conserve the gold, bullion, foreign exchange currencies, etc., i.e., foreign exchange resources, of the country. It may be necessary to ensure the availability of sufficient amount of foreign exchange needed to buy essential foreign goods.

Objectives of Foreign Exchange Control:

- **2. To Prevent Flight of Capital:**

When the domestic capital starts flying out of the country, the Government may check its exports through exchange control.

- **3. Correcting Disequilibrium in Balance of Payments:**

To correct the deficit in the balance of payments, the country needs to put a control on imports. For this purpose, the use of Foreign exchange earnings by exporters for import of goods must be checked through appropriate exchange control. Again, exchange control is essential to implement an import policy very effectively. In short, exchange control may be introduced to protect the country's balance of payments.

Objectives of Foreign Exchange Control:

- **4. Stabilization of Exchange Rates:**

In a free exchange market, exchange rate is a fluctuating phenomenon. Thus, exchange control may be adopted to maintain exchange rates.

- **5 . Protecting the Interest of Home Producers:**

Exchange control may be used for giving protection to domestic producers by restricting the competition from foreign traders through import control.

Objectives of Foreign Exchange Control:

- **6 . Recovery of External Debt:**

  The Government may use the exchange control device to obtain foreign exchange needed for repaying its foreign loans.

- **7 . Effective Economic Planning:**

  For successful economic planning, foreign trade has to be coordinated with planned programs and the outflow of capital should be restricted in order to make it available to domestic industries.

OBJECTIVES OF FOREIGN EXCHANGE CONTROL:

- **8 . Maintaining Over-value of Home Currency:**

  Sometimes exchange control is used in order to maintain the external value of the country's currency at an overvalued level.

- **9 . Generating Public Revenue:**

  Under exchange control, by adopting multiple exchange rates system, the Government can yield revenue income through difference of average buying and selling rates, less costs of administration.

Objectives of Foreign Exchange Control:

- **10 . To prevent Spread of Depression:**

Depression in a big country may spread from country to country via international economic relations. Exchange control may work as a preventive against such spread of depression by controlling the main doors – imports and exports.

Features of Foreign Exchange Control:

- **(i) Protection of Balance of Payments.**

One of the important feature of exchange control is protection of balance of payments.

Under such situations, measures are adopted to stabilize the exchange value of currency at level higher than would be possible under free conditions.

FEATURES OF FOREIGN EXCHANGE CONTROL:

- **(ii) Reducing Burden of Foreign Debt.**

The exchange value of a currency is sometimes fixed and maintained at higher level to lighten the burden of foreign debts contracted in terms of foreign currencies. By overvaluing currency, the foreign exchange earnings of the country from exports are increased in cases where the demand is inelastic and the prices in of the home currency to be paid for essential imports get reduced.

FEATURES OF FOREIGN EXCHANGE CONTROL:

- **(iii) Encouragement of Certain Economic Activities.**

Certain industries can be developed by reducing the imports of commodities produced by them and restricting the availability of foreign exchange to pay for them. For example tourist traffic in the country is encouraged by making available to the tourists home currency at favourable rates.