MAECO-506

International Economics –II

MA ECONOMICS

4th Semester

Rajiv Gandhi University
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M.A (ECONOMICS)

SUBJECT CODE: MAECO506

INTERNATIONAL ECONOMICS – II

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SYLLABI-BOOK MAPPING TABLE

PAPER NO: MAECO506
INTERNATIONAL ECONOMICS-II

SYLLABI	**Mapping in Book**
UNIT I: BALANCE OF PAYMENT Meaning of Balance of Payment (BOP) - Components of Balance of Payments - Relative Importance of Current account and Capital Account - Balance of Payments adjustments: Absorption and Monetary Approaches	
UNIT II: FOREIGN EXCHANGE MARKET Fixed and Floating exchange rate - Purchasing Power Parity - Interest Rate Parity Theory	
UNIT III: THEORY OF REGIONAL BLOCKS Stages of Economic Integration - Trade Creation and Trade Diversion - Theory of custom Union - Common market	
UNIT- IV: INTERNATIONAL TRADE AND MONETARY ORDER Trade and Gold standard - Collapse of the Gold Standard in the Inter-war Period - Bretton Woods System - IMF and World Bank - Fixed Exchange Rate and its Working - Collapse of the Bretton- Woods System and emergence of the floating exchange rate system - Multilateralism - GATT and WTO regime	
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INTRODUCTION OF BOOK

International economics relates to study of economics inclusive of the foreign sector. The domestic conditions of an economy are shaped by the economic interrelationship between countries. In other words, we can say that international economics deals with the economic activities of various countries and their consequences. Thus, the students of economics should have in-depth understanding about the international economic.

The book is divided into ten units, namely: 1. Comparative Cost and Opportunity Cost Models, 2. Trade, Factor Endowments and Factor Price, 3. Terms of Trade, 4. Tariff, 5. Trade and Economic Growth, 6.Balance of Payment, 7. Foreign Exchange Market, 8. Theory of Regional Blocks, 9. International Trade and Monetary Order, 10. Problems of Policy in an Open Economy.

The principle of comparative advantage has been the basis of international trade for over a century. When a country enters into trade with some other country, it will export those commodities in which its comparative costs of production are less, and will import those commodities in which its comparative costs of production are high. In the first unit, the book discusses Ricardo’s theory of international trade. The modified Ricardian model; on the basis of rectification of its drawbacks; Haberler's Opportunity Cost is undertaken.

The importance and impacts of factor endowment and factor price on trade and intensity is discussed in the second unit. This unit examines understands Leontief Paradox, Stolper-Samuelson Theorem: Factor Price Equalization Theorem and International Trade and Imperfect Competition.

The Terms of Trade is the ratio of export price to imports. By understanding the concept of Terms of Trade, we can easily calculate whether the terms of trade between the countries is favourable or unfavourable. Thus, in the third unit, we have discussed Terms of Trade comprehensively.

In fourth unit learners are expected to acquaint themselves with tariff, the argument fore and against it, along with the impact of tariff(both under partial and general equilibrium framework). The learner is also introduced with the concept of game theory and its applicability pertaining to the tariff.

The reader will learn about the relaxation in the assumption of factor constancy and its subsequent outcomes in the fifth unit. The Ryvczynski Theorem, Stolper-Samuelson theorem, immiserizing growth and finally technical changes have discussed in this unit.

A Balance of Payment Account is a systematic record of all economic transactions between residents of a country and the rest of the world carried out in a specific period. The sixth unit discussed about the meaning, component and importance of the Balance of Payment.

The foreign exchange market is the market in which domestic currencies are exchanged for foreign currency. The buyers and sellers include individuals, firms, foreign exchange brokers, commercial banks and the central bank. The transactions in this market are not confined to only one or a few foreign currencies. In fact, there are a large number of foreign currencies which are traded, converted and exchanged in the foreign exchange market. Thus, in the seventh unit book gives deliberation about the meaning of foreign exchange market, the concept of fixed and floating exchange rate, its advantage and disadvantages, how exchange rate is determined under purchasing power parity and interest rate parity and the concept of interest arbitrage, hedging, premium and discount.

In unit eight the meaning and concept of Regional Block, the stages of regional integration, meaning of trade creation and trade diversion elaborately discussed. Further, the concept of custom union and the common market is discussed.

A student of economics should know about the term international trade and the monetary order. Therefore, international trade and the monetary order are comprehensively discussed in unit nine.

Finally, in unit tenth book has discussed about the problems and policy of an open economy.

We hope that the students will find it easy to understand and helpful for institutional examination and also for competitive examination.

UNIT -I
BALANCE OF PAYMENT

Structure

1.1 Introduction

A Balance of Payment Account is a systematic record of all economic transactions between residents of a country and the rest of the world carried out in a specific period of time. In other words, 'Balance of Payment Account is a summary of international transactions of a country for a given period' (i.e., financial year) with rest of the world. It records a country's transactions with the rest of the world involving inflow and outflow of foreign exchange. In short, BOP Account is a summary statement of transactions in foreign exchange in a year. Simply put, BOP account is a statement of a country's sources and uses of foreign exchange in which main sources are: exports, transfers and remittances from abroad, borrowings from abroad, foreign investments whereas uses of foreign exchange are: imports, transfers to abroad, lending abroad and purchase of assets, etc.

1.2 Objectives

- To know the meaning of Balance of Payment
- To know the main components of Balance of Payments

- Importance of Balance of Payments : Current and Capital Account
- To Know the adjustment of Balance of Payment: Absorption and Monetary Approach

1.3 Meaning of Balance of Payment (BOP)

BOP account, like a typical business account, is based on double entry system which contains two sides—Credit side and Debit side. Any transaction which brings in foreign exchange (currency) is recorded on credit side whereas any transaction that causes a country to lose foreign exchange is recorded on debit side. For example, export is credit item as it brings in foreign exchange whereas import is a debit item since it causes outflow of foreign exchange. Similarly, borrowing from rest of the world (ROW) is a credit item while lending to ROW is a debit item. Main purpose of BOP Account is to know international economic position of a country and to help the government make appropriate trade and payment policies.

6.3.1 Components of Balance of Payments

The main components of balance of payments can be discussed under following heads:

a) Current Account

Current account refers to an account which records all the transactions relating to export and import of goods and services and unilateral transfers during a given period of time. Current account contains the receipts and payments relating to all the transactions of visible items, invisible items and unilateral transfers. The main components of Current Account are:

i) Export and Import of Goods (Merchandise Transactions or Visible Trade):

A major part of transactions in foreign trade is in the form of export and import of goods (visible items). Payment for import of goods is written on the negative side (debit items) and receipt from exports is shown on the positive side (credit items). Balance of these visible exports and imports is known as balance of trade (or trade balance).

ii) Export and Import of Services (Invisible Trade):

It includes a large variety of non- factor services (known as invisible items) sold and purchased by the residents of a country, to and from the rest of the world. Payments

are either received or made to the other countries for use of these services. The s**ervices are generally of three kinds: a) shipping b) Banking c) Insurance**

iii) Unilateral or Unrequited Transfers to and from abroad (One sided Transactions):

Unilateral transfers include gifts, donations, personal remittances and other 'one-way' transactions. These refer to those receipts and payments, which take place without any service in return. Receipt of unilateral transfers from rest of the world is shown on the credit side and unilateral transfers to rest of the world on the debit side.

iv) Income receipts and payments to and from abroad:

The Income receipts and payments to and from abroad include investment income in the form of interest, rent and profits.

b) Capital Account

Capital account of BOP records all those transactions, between the residents of a country and the rest of the world, which cause a change in the assets or liabilities of the residents of the country or its government. It is related to claims and liabilities of financial nature. The main components of capital accounts are as follows:

i) Borrowings and lendings to and from abroad

This section includes all transactions relating to borrowings from abroad by private sector, government, etc. the receipts of such loans and repayment of loans by foreigners are recorded on the positive (credit) side. On the other hand the transactions of lending to abroad by private sector and government. These lending abroad and repayment of loans to abroad is recorded as negative or debit item.

ii) Investments to and from abroad

It includes the investments by rest of the world in shares of Indian companies, real estate in India, etc. Such investments from abroad are recorded on the positive (credit) side as they bring in foreign exchange. On the other hand investments made by Indian residents in shares of foreign companies, real estate abroad, etc. are recorded on the negative (debit) side as they lead to outflow of foreign exchange.

iii) Change in Foreign Exchange Reserves:

The foreign exchange reserves are the financial assets of the government held in the central bank. A change in reserves serves as the financing item in India's BOP. So, any withdrawal from the reserves is recorded on the positive (credit) side and any addition to these reserves is recorded on the negative

(debit) side. It must be noted that ‘change in reserves’ is recorded in the BOP account and not ‘reserves’.

Table 6.1 Components of Balance of Payments in case of India

A. CURRENT ACCOUNT 1. Export 2. Imports 3. Trade Balance 4. Invisibles (net) a) Service b) Income c) Transfers 5. Goods and Service Balance 6. Current account balance
B. CAPITAL ACCOUNT 1. External Assistance (net) 2. External Commercial Borrowings 3. Short term Debt 4. Banking Capital 5. Foreign Investment a) FDI (net) b) Portfolio (net) 6. Other Flows (net)
C. CAPITAL ACCOUNT BALANCE Errors and Omissions
D. OVERALL BALANCE
E. RESERVE

1.4 Relative Importance of Current account and Capital Account

Current Account records all the actual transactions of goods and services which affect the income, output and employment of a country. So, it shows the net income generated in the foreign sector. In the current account, receipts from export of goods, services and

unilateral receipts are entered as credit or positive items and payments for import of goods, services and unilateral payments are entered as debit or negative items. The net value of credit and debit balances is the balance on current account. The surplus in current account arises when credit items are more than debit items. It indicates net inflow of foreign exchange. On the other hand deficit in current account arises when debit items are more than credit items. It indicates net outflow of foreign exchange.

In case of capital account, the transactions, which lead to inflow of foreign exchange (like receipt of loan from abroad, sale of assets or shares in foreign countries, etc.), are recorded on the credit or positive side of capital account. Similarly, transactions, which lead to outflow of foreign exchange (like repayment of loans, purchase of assets or shares in foreign countries, etc.) are recorded on the debit or negative side. The net value of credit and debit balances is the balance on capital account. The surplus in capital account arises when credit items are more than debit items. It indicates net inflow of capital. On the other hand the deficit in capital account arises when debit items are more than credit items. It indicates net outflow of capital, further current account and capital account, there is one more element in BOP, known as 'Errors and Omissions'. It is the balancing item, which reflects the inability to record all international transactions accurately.

1.5 Balance of Payments adjustments: Absorption and Monetary Approaches

1.5.1 Absorption Approaches in adjustment of Balance of Payment

Sidney S. Alexander pioneered the development of the absorption to BOP adjustment in his article, "The effects of Devaluation on the Trade Balance" which appeared in I.M.F. Staff paper, in the year 1952. The absorption approach lies in seeing the BOP, not as a relation between the country's debits and credits on international account, but rather as an element in the relation between the aggregate receipts and expenditures of the economy. The theory states that if a country has a deficit in its balance of payments, it means that people are 'absorbing' more than they produce. It implies that domestic expenditure on consumption and investment is greater than national income. On the other hand if they have a surplus in the balance of payments, they are absorbing less. Expenditure on consumption and investment is less than national income. Here the BOP is defined as the difference between national income and domestic expenditure. The analysis can be explained in the following form

$Y = C + I_d + G + X\text{-}M$ ----------*(1)*

Where Y is national income, C is consumption expenditure, I_d total domestic investment, G is autonomous government expenditure, X represents exports and M imports. The sum of $(C + I_d + G)$ is the total absorption designated as A, and the balance of payments (X – M) is designated as B. Thus Equation (1) becomes

$Y = A + B$

Or $B = Y - A$ ---------- *(2)*

It implies that BOP on current account is the difference between national income (Y) and total absorption (A). BOP can be improved by either increasing domestic income or reducing the absorption. For this purpose, Alexander advocates devaluation because it acts both ways.

First, devaluation increases exports and reduces imports, thereby increasing the national income. The additional income so generated will further increase income via the multiplier effect. This will lead to an increase in domestic consumption. Thus the net effect of the increase in national income on the balance of payments is the difference between the total increase in income and the induced increase in absorption, i.e.,

$\Delta B = \Delta Y - \Delta A$ ---------- *(3)*

Total absorption (ΔA) depends on the marginal propensity to absorb when there is devaluation. This is expressed as 'a'. Devaluation also directly affects absorption through the change in income which we write as D. Thus

$\Delta A = a\Delta Y + \Delta D$ ----------*(4)*

Substituting equation (4) in (3), we get

$\Delta B = \Delta Y - a\Delta Y - \Delta D$

or $\Delta B = (1 - a)\,\Delta Y - \Delta D$ ----------*(5)*

The equation points toward three factors which explain the effects of devaluation on BOP. They are:

(i) the marginal propensity to absorb 'a',

(ii) change in income (ΔY), and change in direct absorption (ΔD). It may be noted that since 'a' is the marginal propensity (MP) to absorb, (1 – a) is the propensity to hoard or save. These

factors, in turn, are influenced by the existence of unemployed or idle resources and fully employed resources in the devaluing country.

1.5.2 Monetary Approach in the Adjustment of Balance of Payment

The monetary approach to the balance of payments is associated with the names of R. Mundell and H. Johnson. The other writers who have made contribution to it include R. Dornbusch, M. Mussa, D. Kemp and J. Frankel. The basic premise of the approach is the recognition that the BOP disequilibrium is fundamentally a monetary phenomenon. It attempts to explain the BOP deficits or surpluses through demand for and supply of money.

Assumptions of Monetary Approach:

This approach rests upon the following main assumptions:

(i) There is the existence of a single price for identical products in different countries, after allowing the transport costs.
(ii) The level of output in a given country is exogenously determined.
(iii) There is full employment of resources in all the countries.
(iv) There is no possibility of sterilization of currency flows under a system of fixed exchange rates on account of single price assumption.
(v) The demand for money is a direct function of income and an inverse function of the rate of interest.
(vi) The supply of money is determined by the high powered money and money multiplier.
(vii) The demand for nominal money balances is stable.

The monetary approach, given the above assumptions, holds that the excess of money supply over money demand reflects the balance of payments deficit. The excessive money holdings are utilised by the people in the purchase of foreign goods and securities.

The excess supply of money may be offset by the central bank under a system of fixed exchange rates through the sale of foreign exchange reserves and the purchase of domestic

currency. As the excess supply conditions in the money market are removed, the balance of payments equilibrium gets restored.

On the opposite, if the supply of money falls short of the demand for money, the country will have a balance of payments surplus. In such a situation, people try to acquire the domestic- currency through the sale of goods and securities to the foreigners. For meeting the shortage of domestic currency, the central bank will buy excess foreign currency in addition to the purchase of domestic securities. Such measures will remove the BOP surplus and restore the BOP equilibrium.

The monetary approach to BOP can be expressed through the following relations:

The supply of money (M_s) consists of domestic component of the nation's monetary base (H) and international or foreign component of the nation's monetary base (F).

$M_s = H + F$

The demand for money (M_D) is a stable and direct function of income and inverse function of the rate of interest. The monetary equilibrium is determined by the equality between the demand for money and the supply of money.

$M_S = M_D$

$H + F = M_D$

$F = M_D - H$

From this relation, it follows that the excess of money demand over the domestic monetary base is offset by an inflow of reserves from abroad or international monetary base in the event of a BOP surplus. On the opposite, if there is a BOP deficit reflected by the excess of money supply over money demand, the adjustment can be possible through an outflow of foreign reserves.

The monetary approach also explains that the BOP disequilibria, under a flexible exchange system, are corrected immediately through automatic changes in exchange rate without any international flow of money or reserves. A deficit in the BOP resulting from the excess of money supply over money demand, causes an automatic depreciation in country's currency. This leads to a rise in domestic prices and also the demand for money.As a result, there is an absorption of the excess supply of money and the BOP deficit gets adjusted.

On the other hand, a surplus in the BOP, caused by the excess of demand for money over its supply, results automatically in the appreciation of nation's currency. It leads to a fall in domestic prices. As a consequence, the excess money demand and the BOP surplus get offset. The monetary approach to the BOP situation has an important policy implications. It suggests that the policies like devaluation can have effectiveness in the short period only if the monetary authority does not increase the supply of money to match exactly the increase in the demand for money resulting from devaluation or other adjustment policies.

The main criticism of monetary approach is as follows:

(i) Stability of Money Demand Functions:

This approach, assumes the demand function of money to be stable. Such an assumption may be valid in the long run. But there is a strong opinion among the economists that money demand function is unstable in the short period.

(ii) Assumption of Full Employment:

In this approach, an assumption has been taken that there is the existence of full employment. This assumption does not hold valid in actual life.

(iii) Invalidity of Single Price:

The monetary approach to BOP adjustment rests upon the assumption of single price for identical products. Even this assumption is not true. When the productive factors are diverted to sectors producing non-traded commodities, the excess demand for non-traded goods can spill over into the reduced supply of traded goods. That can cause an increase in imports. Consequently, the principle of single price for all traded goods stands violated.

(iv) Neglect of other Influences on Money Demand:

In this approach, the demand function for money is related only to income and rate of interest. In fact, the money demand function is related to several other variables connected with both domestic economy and foreign trade and exchange.

(v) Possibility of Sterilization of Currency:

The critics have not accepted the validity of the assumption of impossibility of sterilization of currency under a system of fixed exchange rates. They have referred to circumstances in which the sterilization of currency can become possible. In their opinion, the currency flow can become sterile, if the private sector is willing to adjust the composition of its wealth portfolio with regard to the relative importance of bonds and money balances.

Another situation in which sterilization of currency flow can be possible occurs if the government is prepared to have higher budget deficits whenever the country has to deal with the problem of BOP deficit.

(vi) Market Imperfections:

The principle of single price for identical products is vitiated by the market imperfections. The price differentials between different trading countries do exist on account of market imperfections and various restrictions or regulations enforced by the governments on the domestic and international trade.

(vii) Neglect of Monetary Lags:

The monetary approach is conceptually suited to long term balance of payments adjustment. The prolonged monetary lags between the recognition of the problem of BOP deficit and ultimate BOP adjustment have been generally neglected in this approach.

(viii) Neglect of Other Economic Policies:

In this approach, the emphasis is essentially upon the variation in credit flows. The BOP equilibrium can be achieved also through the alternative economic policies of expenditure-switching which can work through domestic real and money flows as well as the government budgetary variations.

Despite its weaknesses, the monetary approach is superior to the traditional price-specie flow theory of D. Hume. That theory had stressed upon the BOP adjustments through the gold flows and consequent effects upon prices, international trade and payments. The modern monetary approach, in contrast, suggests the correction of BOP deficits or surpluses through changes in domestic and international monetary base and their effects upon production, income and expenditure.

1.6 Lets Sum Up

Balance of payment is statements or a device for recording all the economic transaction within a given period between the resident of a one country to the rest of the world. These records include transactions made by individuals, companies and the government. Keeping a record of these transactions helps the country to monitor the flow of money and develop policies that would help in building a strong economy. In a perfect scenario, the Balance of Payments (BoP) should be zero. That is, the money coming in and the money going out should balance out. But that doesn't happen in most cases. A country's BoP statement correctly indicates

whether the country has a surplus or a deficit of funds. A BoP surplus indicates that a country's exports are more than its imports. A BoP deficit, on the other hand, indicates that a country's imports are more than exports. Both scenarios have short-term and long-term effects on the country's economy.

1.7 Question

1. Discuss the various components of balance of payment.
2. What is balance of payments? Explain the current and capital account of balance of payments.
3. What are the relative importance of current and capital account?
4. What is surplus and deficit in balance of payment?
5. Explain the mechanism of absorption approach in adjustment in balance of payment.
6. Explain the monetary approach in adjustment of BoP.

1.8 Key Words

Balance of Payment, Deficit and Surplus Balance of payment, Balance of Trade, Capital account, Current Account, Absorption and Monetary approach,

1.9 Suggested Readings

Mannur H G , International Economcs, Vikash Publishing House

Soderston Bo , The Macmillian Press Ltd., London

Salvator, D, International Economics: Trade and Finance , 10th Edition International Student version, Wiley India Pvt. Ltd

Cherunilam, F, International Economics , Tata Mc Graw Hill Publishing Company Ltd. New Dehli

UNIT VII

FOREIGN EXCHANGE MARKET

Structure

2.1 Introduction

Foreign exchange market is the market in which foreign currencies are bought and sold. The buyers and sellers include individuals, firms, foreign exchange brokers, commercial banks and the central bank. The transactions in this market are not confined to only one or few foreign currencies. In fact, there are a large number of foreign currencies which are traded, converted and exchanged in the foreign exchange market. Foreign exchange market is also described as an OTC (Over the counter) market as there is no physical place where the participants meet to execute their deals. It is more an informal arrangement among the banks and brokers operating in a financing centre purchasing and selling currencies, connected to each other by tele-communications like telex, telephone and a satellite communication network. The term foreign exchange market is used to refer to the wholesale a segment of the market, where the dealings take place among the banks. The retail segment refers to the dealings take place between banks and their customers. The retail segment refers to the dealings take place between banks and their customers. The retail segment is situated at a large number of places. They can be considered not as foreign exchange markets, but as the counters of such markets.

2.2 Objectives

- To know the meaning of foreign exchange market
- To know concept of fixed and floating exchange rate, its advantage and disadvantages
- To know how exchange rate, determine under purchasing power parity and interest rate parity
- To know the concept of interest arbitrage, hedging, premium and discount

2.3 Fixed and Floating exchange rate

The fixed and floating exchange rate system is discussed under following heads:

a) Fixed Exchange Rate

A fixed exchange rate is an exchange rate that does not fluctuate or that changes within a pre-determined rate at frequent intervals. Government or the central monetary authority intervenes in the foreign exchange market so that exchange rates are kept fixed at a stable rate. The rate at which the currency is fixed is called par value. If the rate of exchange is diverting from the equilibrium level than the government or the monetary authority of the country interfere in foreign exchange market and maintain the exchange rate fixed at equilibrium rate. The market intervention in such situation is called pegging. The pegging operation maintains the exchange rate at desired equilibrium level.

The fixed or pegged exchange rate can be explained graphically. Let us suppose that India's demand for US goods rises. This increased demand for imports causes an increase in the supply of domestic currency, rupee, in the exchange market to obtain US dollars. Let DD and SS be the demand and supply curves of dollar in Fig A. These two curves intersect at point A and the corresponding exchange rate is Rs. 40 = $1. Consequently, the supply curve shifts to S_1S_1 and cuts the demand curve DD at point B. This means a fall in the exchange rate.

To prevent this exchange rate from falling, the Reserve Bank of India will now demand more rupee in exchange for the US dollars. This will restrict the excess supply of rupee and there will be an upward pressure in exchange rate. Demand curve will now shift to DD_1. The end result is the restoration of the old exchange rate at point C.

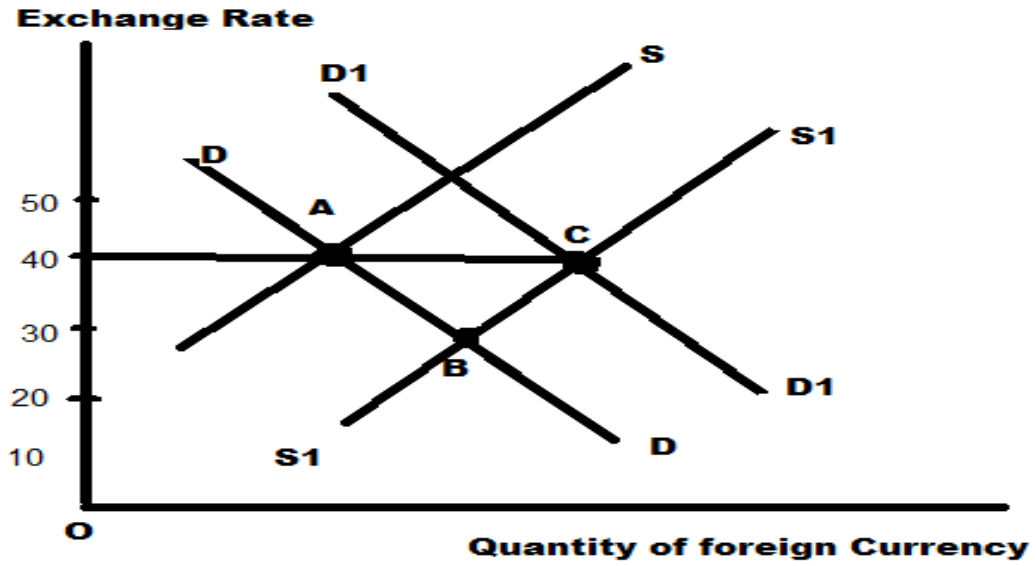


Figure A. Fixed Exchange Rate

Thus, it is clear that the maintenance of fixed exchange rate system requires that foreign exchange reserves are sufficiently available. Whenever a country experiences inadequate foreign currency reserves it won't be able to purchase domestic currency in sufficient quantities. Under the circumstance, the country will devalue its currency. Thus, devaluation means an official reduction in the value of one currency in terms of another currency.

2.3.1 Advantages and Disadvantages of Fixed Exchange Rate

The main advantages of the fixed exchange rate system can be discussed as follows:

(i) Reduce the Uncertainty and Risk:

The necessary condition for an orderly and steady growth of trade demands stability in exchange rate. Any undue fluctuations in exchange rate cause problems to the plans and programme of both exporters and imports. In other words, incomes of export-earners and the cost of imports of the importers tend to become uncertain if the exchange rate fluctuates. This

uncertainty can be removed by a fixed exchange rate method. Further, the risks associated with international trade and investment gets minimized largely if exchange rates are not allowed to vary.

(ii) Discourage Speculation:

As exchange rate remains unchanged for a fairly long period of time, people expect that such rate would not change in the immediate future. This then eliminates speculation in the foreign exchange market. Further, as there is stability in the exchange rate over long period, it eliminates the threat of speculation and also it discourages the flight of capital.

(iii) Prevention in Depreciation of Currency:

In poor developing countries, one experiences BOP difficulties of a permanent type. Under the circumstances, any frequent changes in exchange rate will tend to aggravate the BOP crisis, like continuous depreciation of home currency in terms of currencies of other countries. In other words, unstable exchange rates result in depreciation of currencies.

(iv) Adoption of Responsible Macroeconomic Policies:

Stable exchange rate system prevents government from adopting irresponsible macro-economic policies like devaluation of currencies. Above all, under the fixed exchange rate system, deflationary policies can even be pursued to tide over the BOP deficit, even without bringing any change in domestic policies.

(v) Attraction of Foreign Investment:

Exchange rate stability may encourage foreigners to perk their investible funds in a country. If the exchange rate changes rather frequently, it will deter them to invest in a country.

(vi) Anti-inflationary:

Fixed exchange rate system is anti-inflationary in character. If exchange rate is allowed to decline, import goods tend to become dearer. High cost import goods then fuels inflation. Such a situation can be prevented by making the exchange rate fixed.

Under fixed exchange rate, the main disadvantages are as follows:

(i) Speculation Encouraged:

Under a fixed rate system, if a country faces huge BOP deficit then the possibility of speculation gets brightened. If the speculators can guess that such BOP deficit will persist in the days ahead and the authority may go for a cut in foreign exchange rate then these people will be more enthusiastic to sell domestic currencies in the foreign exchange market. If such sale of home currencies continues for a longer period, the central bank will then be forced to reduce exchange rate, instead of keeping it at the old fixed rate. Under the circumstance, speculators go on buying home currencies where exchange rates have been reduced. This will make these people to earn profit. The Bretton Woods System of the IMF collapsed in 1971 because of such speculation made with the US dollars.

(ii) Adequacy of Foreign Exchange Reserves

For the effectiveness of a stable exchange rate, the necessary condition is the adequacy of holding, foreign exchange reserves. Poor developing countries find it difficult to maintain an adequate volume of foreign exchange reserves. Speculators then anticipate currency devaluation in advances if BOP needs to be corrected. Before 1970, fixed exchange rate, in fact, prevailed because of low volume of global trade and, hence, low volume of foreign exchange reserves.

(iii) Internal Objectives of Growth and Full Employment Sacrificed:

When countries experience large and persistent deficits or 'fundamental disequilibrium' in BOP, they are down with the foreign exchange reserves. Countries then opt for devaluation of their currencies and take some internal measures to reduce their deficits. These harsh internal measures tend to contract economies. But the fallouts of these measures are rising prices and rising unemployment, these in turn reduce economic growth.

(iv) International Competitive Environment bypassed:

The continuous changes in international competitive environment do not get reflected under the fixed exchange rate system. Thus, to make the home product more competitive in the foreign market, what is required is the change in domestic economic policies so that the country's export products get larger foothold in the foreign market. In other words, the fixed exchange rate system fails to gloss over the international competitive environment. This kind of exchange rate developed after the World War II. The International Monetary Fund set up by the Bretton Woods Agreement of 1944 came into operation in March 1947. The period 1947-1971 came to be known as 'fixed but adjustable exchange rate system' or 'par value system' or the 'pegged exchange rate system' or the 'Bretton Woods System'. As the Bretton Woods System collapsed, this exchange rate was abandoned in 1971. Several stop-gap measures were taken but uncertainty and confusion in the exchange rate systems continued. Ultimately, in 1973, the world's exchange rate system came to be known as the 'managed floating' in the sense that currencies tend to float more or less freely in the foreign exchange market.

b) Floating Exchange Rate System

Under the floating exchange rate, the exchange rate is allowed to vary to international foreign exchange market influences. Thus, government does not intervene. Rather, it is the market forces that determine the exchange rate. In fact, automatic variations in exchange rates consequent upon a change in market forces are the essence of freely fluctuating exchange rates. A deficit in the BOP account means an excess supply of the domestic currency in the world markets. As price declines, imbalances are removed. In other words, excess supply of domestic currency will automatically cause a fall in the exchange rate and BOP balance will be restored. Floating exchange rate mechanism has been explained in Fig. B where DD and SS are demand and supply curves. When Indians buy US goods, there arises supply of dollar and when US people buy Indian goods there occurs demand for rupee. Initial exchange rate—Rs. 40 = $1—is determined by the intersection of DD and SS curves in both the figure (a) and (b) below

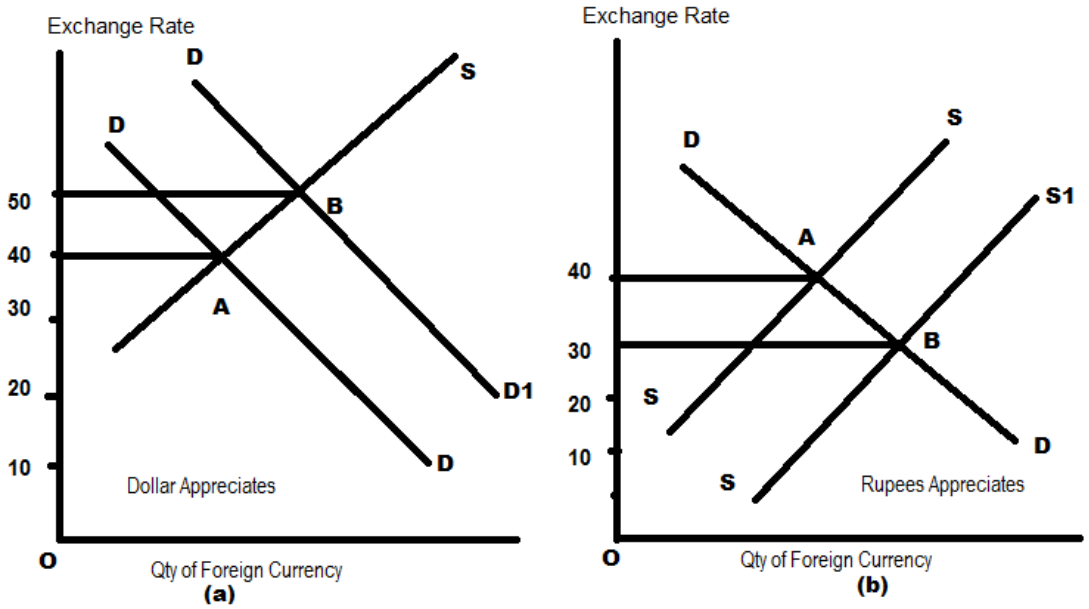


Figure B. Flexible Exchange Rate

An increase in demand for India's exportable means an increase in the demand for Indian rupee. Consequently, demand curve shifts to $DD_1$and the new exchange rate rises to Rs. 50 = $1. At this new exchange rate, dollar appreciates while rupee depreciates in value (figure a).

The figure (b) shows that the initial exchange rate is Rs. 40 = $1. Supply curve shifts to SS_1 in response to an increase in demand for US goods. SS_1 curve intersects the demand curve DD at point B and exchange rate drops to Rs. 30 = $1. This means that dollar depreciates while Indian rupee appreciates. Under the floating exchange rate system, exchange rate between different currencies, like the prices of commodities are freely determined by market forces, that is, by demand and supply forces.

With the change in economic conditions underlying demand and supply, the exchange rate will automatically change without any intervention by the Government. That is why, it is called floating or variable exchange rate system.

It has the following merits:

1. Problems of undervaluation and overvaluation can be avoided:

The advocates of floating exchange rates contend that under it the problems of undervaluation and overvaluation of currencies which are found in the fixed exchange rate

system are avoided. Whenever there is deficit in balance of payments implying overvaluation of the national currency under the floating exchange rates, it will depreciate (that is, its value will fall) which on the one hand will make exports cheaper and thereby encourage them and on the other will make the imports costlier than before which will tend to discourage them. Thus, increase in exports and decline in imports as a result of depreciation will lead to the automatic correction in the balance of payments. On the other hand, whenever there is surplus in the balance of payments, the exchange rate will appreciate which will tend to reduce exports and raise imports. This again will tend to automatically restore the balance of payments equilibrium. This is how the floating exchange system works to ensure the equilibrium in the balance of payments.

2. Promotes Growth of Multilateral Trade:

The advocates of floating exchange rates system are strongly of the view that as unlike fixed exchange rates system, this does not create serious and difficult problems; it will ensure rapid growth of multilateral world trade. Further, they point out that promotion of world trade under the floating exchange rates would not interfere in any way the adoption of policies to achieve domestic economic stability.

3. Floating Exchange Rates does not necessarily show large fluctuations:

It has been pointed out in defense of the floating exchange rates that the problems of undervalued or overvalued currency found under the fixed exchange rate regime are not found in the floating exchange rate system. Further, it is contended that exchange rates being floating does not necessarily mean there will be large fluctuations in them. Even under floating exchange system there need not be large fluctuations in exchange rates.

4. It Frees the Government from Problems of Balance of Payments:

A great merit of floating exchange rates is that it frees the Government from problems of balance of payments. As has been seen above, the fixed exchange rates system leads either to deficit or surplus in balance of payments. Under this system the Government remains preoccupied with the questions of devaluation or revaluation of their currencies. Since

floating exchange rates work automatically to restore balance of payments equilibrium, the Government need not pay any attention to the balance of payments.

Demerits of Floating Exchange Rate System:

The main demerits of floating exchange rate system are as follws:

1. Floating Exchange Rates create a situation of instability and uncertainty:

An important argument against floating exchange rates is that too frequent fluctuations in exchange rate under it create uncertainty about the exact amount of receipts and payments in foreign exchange transactions. This instability hampers foreign trade and capital movements between the countries.

2. Dampening Effect on Foreign Trade:

Under the floating exchange rates, the price of foreign exchange or international value of the national currency is quite uncertain. As a result, they are unable to take proper decisions regarding exports and imports of goods. Obviously, this has a dampening effect on the volume and growth of foreign trade.

3. Widespread speculation with a de-stabilizing effect:

The system of floating exchange rates has been opposed on the ground that under it there is widespread speculation regarding exchange rates of currencies which has a large destabilising effect on these rates. Friedman, on the other hand, contend that speculation has a stabilising influence on exchange rates. However, whether or not speculation has a destabilising or stabilising effect is a highly controversial issue in economics which has so far remained unresolved.

4. Provides an inflationary bias to an economy:

Another shortcoming of the flexible, exchange rates is that they have an inflationary impact on the economy. It has been pointed out that whenever due to deficit in balance of payments, the currency depreciates and the prices of imports go up. The higher prices of imported materials raise the prices of industrial products and thus generate cost-push inflation.

7.4 Purchasing Power Parity

The purchasing power parity theory was systematically developed by Gustav Cassel a Swedish economist. The theory states that the equilibrium rate of exchange is determined by equality of purchasing power of two inconvertible paper currencies which implies that the rate of exchange between two paper currencies is determined by the internal price level of the two currencies. It implies that the exchange rate between two countries should be equal to the ratio of the two countries price level of a fixed basket of goods and services. The main basis of purchasing power parity theory is the law of one price. In the absence of transaction cost and other costs the competitive market force will act in such a way that the price identical product of the will be same for the two country.

The Purchasing power parity can be explained with the help of an example, if by spending Rs. 50/- we can buy an amount of goods in India as we can buy with £1 in England the rate of exchange between England and India will be Rs. 50/- to £1. This is easily seen if we reflect on the fact that the price paid in a foreign currency is ultimately a price for foreign commodities, a price which must stand in a certain relation to the prices of commodities on the home market. Thus, we arrive at the conclusion that the rate of exchange between two currencies must stand essentially on the internal purchasing powers of these currencies.

The theory of purchasing power can be presented in two version, these are as follows:

a) The Absolute Version:

The absolute version of purchasing power parity states that the exchange rate should reflect the relation between the internal purchasing power of the various national currency

units. It implies that the exchange rate should equal the ratio of outlay required to purchase a particular sets of goods at home compared with what it would buy abroad.

Thus the absolute version of purchasing power can be written as

$$ExchangeRate = \frac{Numberofcurrency A}{Oneunitofcurrency B} \frac{IpofB}{IpofA}$$

Where *Ip* stands for internal purchasing power, which is the reciprocal of the index of general price level. The right hand side of the equation shows the foreign exchange rate and B stands for the foreign money.

b) The Relative version:

The relative version of explain the changes in the equilibrium rate of exchange between two countries. Thus the relative version of purchasing power states that the changes in equilibrium rate of exchange will be governed by changes in the ratio of their respective purchasing power.

Symbolically,

$$R1 = R.\frac{Pb1/Pb0}{Pa1/Pa0}$$

Where,

R1 is the rate of exchange in the current period

R0 is the base rate or old equilibrium rate

Pb1 stands for price index of country b in current period

Pb0 stands for price index of the country b in base period

Pa1 stands for price index of the country a in current period

Pa0 is price index of country a in base period.

2.5 Interest Rate Parity Theory

Interest Rate Parity (IRP) is a theory in which the differential between the interest rates of two countries remains equal to the differential calculated by using the forward exchange rate and the spot exchange rate techniques. Interest rate parity connects interest, spot exchange, and foreign exchange rates. It plays a crucial role in Forex (foreign exchange) markets. According to this theory, there will be no arbitrage in interest rate

differentials between two different currencies and the differential will be reflected in the discount or premium for the forward exchange rate on the foreign exchange.

The theory also stresses on the fact that the size of the forward premium or discount on a foreign currency is equal to the difference between the spot and forward interest rates of the countries. The interest rate parity plays an important role in foreign exchange market by connecting interest rate, spot exchange rate and foreign exchange rates.

The formulas to calculate the interest rate parity are as follows:

$$F_0 = S_0 \mathrm{X} \left[\frac{1 + i_c}{1 + i_b}\right]$$

where, F_0 is forward rate

S_0 is spot rate

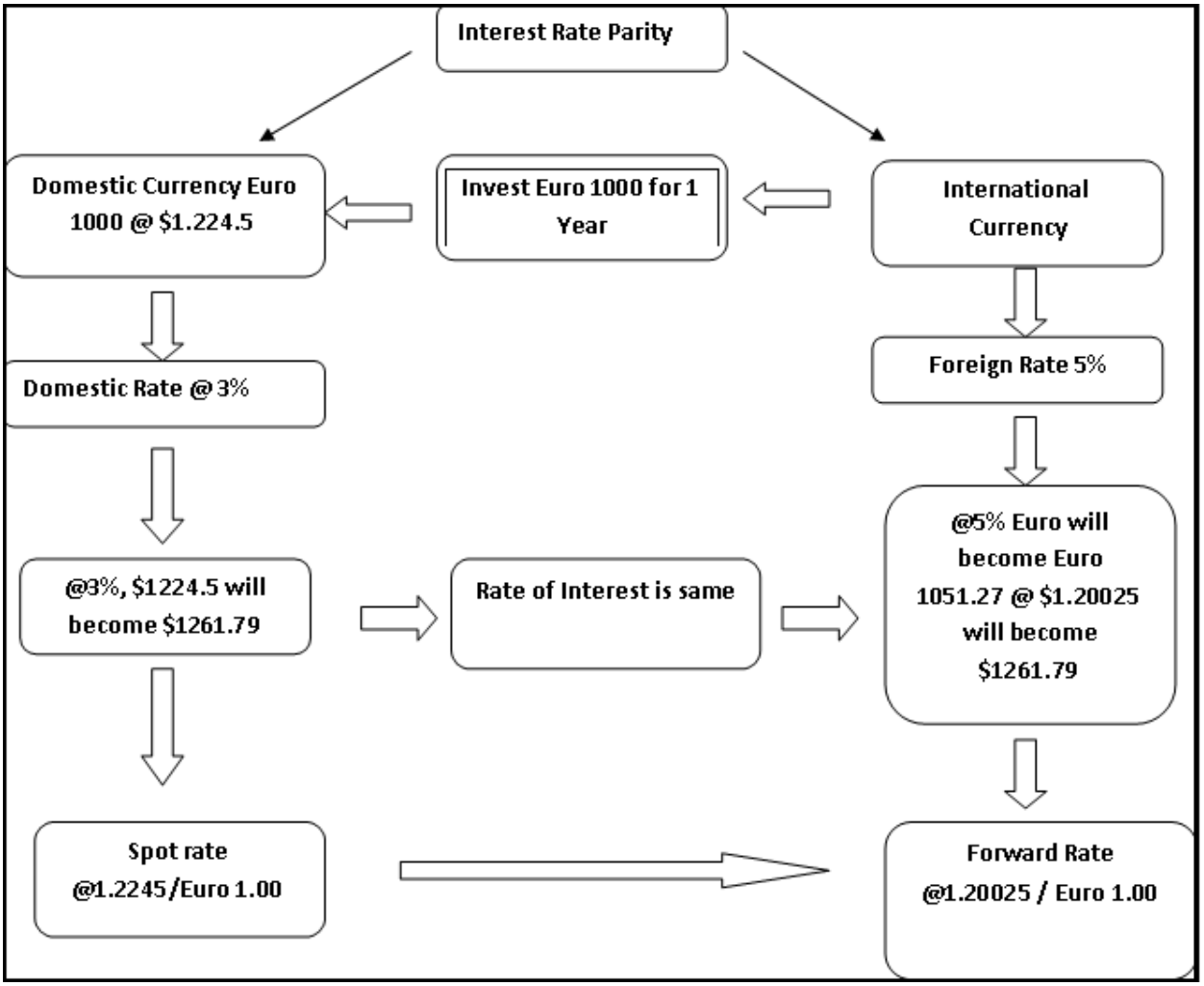
$i_c$is interest rate in country c

i_b is interest rate in country b

The interest rate parity theory can be explained with the help of an example. An investor wants to invest of 1000 Euro for one year, than he left with two options as shown in the figure C.

Figure C: Interest Rate Parity

Case I: Home Investment



In the US, let the spot exchange rate be $1.2245 / €1. So, investor get an exchange for €1000 @ $1.2245 = $1224.50. Now he can invest this money $1224.50 at the rate of 3% for 1 year which yields $1261.79 at the end of the year.

Case II: International Investment

The investor can also invest €1000 in an international market, where the rate of interest is 5.0% for 1 year. So, €1000 @ of 5% for 1 year = €1051.27. Let the forward exchange rate be $1.20025 / €1. So, he can buy forward 1 year in the future exchange rate at $1.20025/€1 since the investor need to convert the €1000 back to the domestic currency, i.e., the U.S. Dollar.

Then, he can convert € 1051.27 @ $1.20025 = $1261.79. Thus, when there is no **arbitrage,** the Return on Investment (ROI) is equal in both cases, regardless the choice of investment method.

The Arbitrage is the activity of purchasing shares or currency in one financial market and selling it at a premium (profit) in another.

Covered Interest Rate Parity (CIRP)

According to Covered Interest Rate theory, the exchange rate forward premiums (discounts) nullify the interest rate differentials between two countries. In other words, covered interest rate theory says that the difference between interest rates in two countries is nullified by the spot/forward currency premiums so that the investors could not earn an arbitrage profit. . The covered interest rate parity situation means there is no opportunity for arbitrage using forward contracts, which often exists between countries with different interest rates. The formula of covered interest rate parity is

$$(\mathbf{1} + \boldsymbol{i_d}) = \frac{\boldsymbol{F}}{\boldsymbol{S}} * \left(\mathbf{1} + \boldsymbol{i_f}\right)$$

Where, i_d is the interest rate in the domestic currency or the base currency

i_f is the interest rate in the foreign currency

S is the current spot exchange rate

F is the forward foreign exchange rate

After rearranging the above formula, it can be written as

$$F = S * \frac{(1 + \boldsymbol{i_d})}{(1 + \boldsymbol{i_f})}$$

Covered interest rate parity is a no-arbitrage condition that could be used in the foreign exchange markets to determine the forward foreign exchange rate. The condition also states that investors could hedge foreign exchange risk or unforeseen fluctuations in exchange rates (with forward contracts). Consequently, the foreign exchange risk is said to be covered.

Uncovered Interest Rate Parity (UIP)

Uncovered interest rate parity (UIP) theory states that the difference in interest rates between two countries will equal the relative change in currency foreign exchange rates over the same period. It is one form of interest rate parity (IRP) used alongside covered interest rate parity. If the uncovered interest rate parity relationship does not hold, then there is an opportunity to make a risk-free profit using currency arbitrage or Forex arbitrage. Uncovered Interest Rate theory says that the expected appreciation (or depreciation) of a particular currency is nullified by lower (or higher) interest. The formula for uncovered interest rate parity is

$$\boldsymbol{F0 = S0\,\frac{1 + i_c}{1 + i_b}}$$

Where,

*F*0=Forward rate

*S*0=Spot rate

ic=Interest rate in country *c*

ib=Interest rate in country *b*

Implications of IRP Theory

If IRP theory holds, then it can negate the possibility of arbitrage. It means that even if investors invest in domestic or foreign currency, the ROI will be the same as if the investor had originally invested in the domestic currency.

- When domestic interest rate is below foreign interest rates, the foreign currency must trade at a forward discount. This is applicable for prevention of foreign currency arbitrage.
- If a foreign currency does not have a forward discount or when the forward discount is not large enough to offset the interest rate advantage, arbitrage opportunity is available for the domestic investors. So, domestic investors can sometimes benefit from foreign investment.
- When domestic rates exceed foreign interest rates, the foreign currency must trade at a forward premium. This is again to offset prevention of domestic country arbitrage.
- When the foreign currency does not have a forward premium or when the forward premium is not large enough to nullify the domestic country advantage, an arbitrage

opportunity will be available for the foreign investors. So, the foreign investors can gain profit by investing in the domestic market.

2.6 Let Us Sum Up

The foreign exchange market is merely a part of the money market in the financial centers. It is a place where foreign moneys are bought and sold. The buyers and sellers of claim on foreign money and the intermediaries together constitute a foreign exchange market. It is not restricted to any given country or a geographical area. Thus, the foreign exchange market is the market for a national currency (foreign money) anywhere in the world, as the financial centres of the world are united in a single market. There is a wide variety of dealers in the foreign exchange market. The most important among them are the banks. Banks dealing in foreign exchange have branches with substantial balances in different countries. Through their branches and correspondents, the services of such banks, usually called "Exchange Banks," are available all over the world. These banks discount and sell foreign bills of exchange, issue bank drafts, effect telegraphic transfers and other credit instruments, and discount and collect amounts on the basis of such documents. Other dealers in foreign exchange are bill brokers who help sellers and buyers in foreign bills to come together. They are intermediaries and unlike banks are not direct dealers. Acceptance houses are another class of dealers in foreign exchange. They help effect foreign remittances by accepting bills on behalf of customers. The central bank and treasury of a country are also dealers in foreign exchange. Both may intervene in the market occasionally. Today, however, these authorities manage exchange rates and implement exchange controls in various ways.

2.7 Questions

1. What is foreign exchange markets?
2. What is fixed and floating exchange market? What are its main advantages and disadvantages?
3. How foreign exchange rate determined with help of purchasing power parity?
4. Discuss the interest rate parity theorem.
5. Write short note on:
    a. Interest arbitrage
    b. Hedging

c. Premium and discount

2.8 Suggested Reading

Mannur H G , International Economcs, Vikash Publishing House

Soderston Bo , The Macmillian Press Ltd., London

Salvator, D, International Economics: Trade and Finance , 10th Edition International Student version, Wiley India Pvt. Ltd

Cherunilam, F, International Economics , Tata Mc Graw Hill Publishing Company Ltd. New Dehli

UNIT III
THEORY OF REGIONAL BLOCKS

Structure

3.1 Introduction

The term regional blocks are generally the association of nations at a governmental level to promote trade within the block and defend its members against global competition. Trade bloc can be stand-alone agreements between several countries or part of regional organization. On the level of economic integration, the trade block can be classified as preferential trading areas, free trade areas, custom unions, common market, economic and monetary unions etc,.

3.2 Objectives

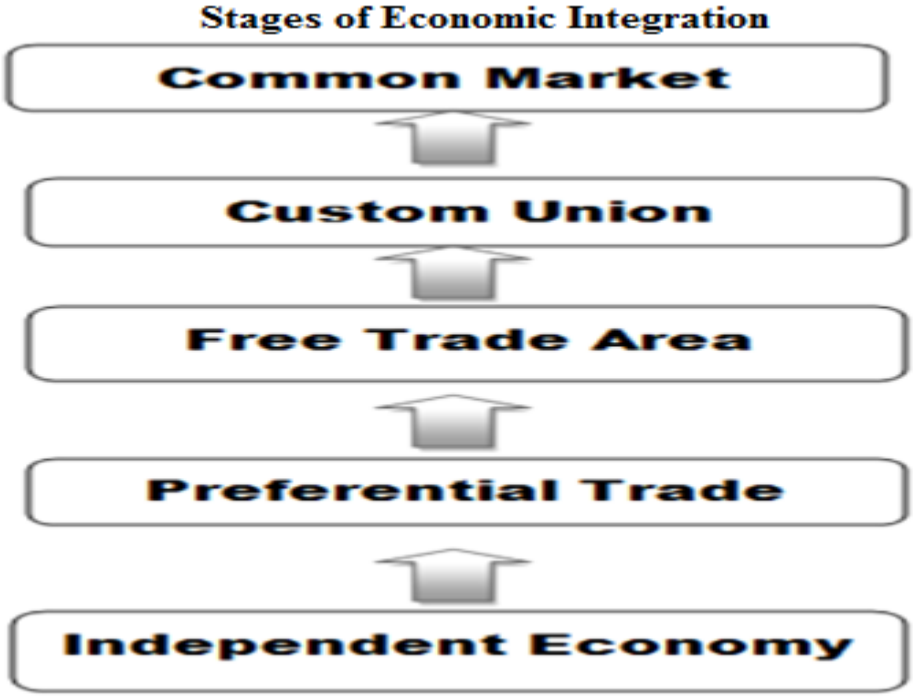
- To know the meaning and concept of Regional Block

- To understand the stages of regional integration
- To know the meaning of trade creation and trade diversion
- To know the concept of custom union and common market

3.3 Stages of Economic Integration

In the process of economic integration, there are several stages, from a very loose association of countries in a *preferential trade area*, to *complete* economic integration, where the economies of member countries are completely integrated. A regional trading bloc is a group of countries within a geographical region that protect themselves from imports from non-members in other geographical regions, and who look to trade more with each other. Over the years, regional trading blocs are increasingly shaping the pattern of world trade - a phenomenon often referred to as *regionalism*. The various stages of economic integration can be explained with the help of flow chart in the figure 8.1. In the bottom, it comes the domestic economy, followed by preferential trade, free trade area, custom union and then common market. The stages of economic integration can be explained with help of the table.

Figure 8.1 Stages of Economic Integration



8.3.1

Preferential Trade Area

Preferential Trade Areas (PTAs) exist when countries within a geographical region agree to reduce or eliminate tariff barriers on selected goods imported from other members of the area. This is often the first small step towards the creation of a trading bloc. Agreements may be made between two countries (bi-lateral), or several countries (multi-lateral).

3.3.2 Free Trade Area

Free Trade Areas (FTAs) are created when two or more countries in a region agree to reduce or eliminate barriers to trade on all goods coming from other members. The North Atlantic Free Trade Agreement (NAFTA) is an example of such a free trade area, and includes the USA, Canada, and Mexico.

3.3.3 Customs Union

A customs union involves the removal of tariff barriers between members, together with the acceptance of a common (unified) external tariff against non-members. Countries that export to the customs union only need to make a single payment (duty), once the goods have passed through the border. Once inside the union goods can move freely without additional tariffs. The tariff revenue is then shared between members, with the country that collects the duty retaining a small share.

3.3.4 Common Market

A common (or single) market is the most significant step towards full economic integration. In the case of Europe, the single market is officially referred as the 'internal market'. The main feature of a common market is the extension of free trade from just tangible goods, to include all economic resources. This means that all barriers are eliminated to allow the free movement of goods, services, capital, and labour among the partner nations. In addition, as well as removing tariffs, non-tariff barriers are also reduced and eliminated. For a common market to be successful there must also be a significant level of harmonization of micro-economic policies, and common rules regarding product standards, monopoly power and other anti-competitive practices. There may also be common policies that affecting key industries, such as the Common Agricultural Policy (CAP) and Common Fisheries Policy (CFP).

3.4 Trade Creation and Trade Diversion

The pioneering study of the theory of customs unions was made by Jacob Viner. Considering a a simple model, Viner showed that while forming a customs union, it could have welfare increasing effects in some circumstances as well as welfare-reducing effects in others. Viner introduced the key concepts of trade creation and trade diversion. They may be illustrated by Table 8.1, which shows the production cost of a homogeneous commodity say for example commodity X in three countries. For simplicity we ignore the cost such as transportation cost, mark-ups, etc., so that production cost is only the cost in the model which completely determines the supply price of the good, and tariffs are the only source of divergence between price and cost.

Table 8.1 Production cost of commodity X in three countries

Country	Production Cost
A	**Rs. 50**
B	**Rs. 40**
C	**Rs. 30**

First, let us assume that Country A imposed a non-discriminatory tariff of100 per cent on commodity X from country B and C. Now the Consumers in country A would be faced with a choice between home-produced goods at a price of Rs 50 or either the goods imports from country B at a price of Rs 80, and it imports the product from country C at a price of Rs 60. If country A now forms a customs union with B, while maintaining the same 100per cent of tariff on imports from C, than consumers in country A will face a choice between home-produced goods at a price of Rs 50, imports from B at a price of Rs 40, and imports from C at a price of Rs60. Country A would then import the good from B, and the price in A's home market would be Rs 40, rather than producing the good itself at a cost of Rs.50 in resources, country A will now import a unit of the good for exports using resources costing Rs.40, and so will make a welfare gain. This is an example of trade creation, the replacing of relatively high-cost domestic production with lower cost imports from the trading partner country.

Now let us assume that before the union country A levies a tariff of Rs.50 per cent, and that it is non-discriminatory. Then consumers in A would be faced with a choice between

home-produced goods at a price of Rs.50, imports from B at a price of Rs. 60, and imports from Cat a price of 45. A would import the good from the lower-cost source, country C, and the price in A's home market would be Rs.45.Suppose again that A and B form a customs union. Consumers in A will be faced with the choice of paying Rs.50 for the home-produced good, Rs.40 for imports from B, and Rs.45 for imports from C. Country A will now import X from B, and the price in A's market will be 40. Imports will be switched from the low-cost supplier, C to the high-cost supplier, B. Country A now has to use domestic resources to produce exports with a value of Rs.40 in order to import 1 unit from B, whereas before joining the customs union it only had to produce exports with a value of Rs.30 to import 1 unit from C. This is an example of trade diversion. The trade diversion takes place when a country switches its source of imports from a more efficiently-producing country to a less efficiently-producing country because of the customs union. This will lead to a lowering of welfare, as it entails a less efficient allocation of resources. In Vinerian model trade creation is always welfare increasing, while trade diversion always leads to a reduction in welfare. But if we relax the assumption that demand is perfectly price inelastic then this simple one-to-one correspondence disappears.

The trade creation and trade diversion arise because formation of the union leads to a fall in the price faced by consumers in A. If demand is not perfectly inelastic then this fall in price will lead to an increase in consumption, and this is a source of welfare gain. Such consumption gains enhance the welfare-increasing effects of trade creation. They will however offset the welfare-reducing effects of trade diversion, and may even result in trade diversion leading to an increase in welfare. A further complication is that when we allow the possibility of increasing production costs in A and B then it is quite possible for trade creation and trade diversion to occur simultaneously, since A may import from both B and C before the union is formed.

3.5 Theory of custom Union

Before the development of the theory of customs union by J. Viner, there was a general belief that customs union raises the level of welfare as customs union is a movement towards free trade at least within a specific area. Viner pointed out that the conclusion concerning increase in welfare due to customs union is not necessarily true. He analyzed the production effects of customs union through the concepts of trade creation and trade

diversion. The works of the writers like Meade, Lipsey, Lancaster and many others analyzed the consumption effects. H.G. Johnson followed a partial equilibrium approach to investigate fully the effects of a customs union by incorporating both the production and consumption effects.

3.5.1 Partial Equilibrium Analysis of Customs Union:

A custom union is an organization that includes two or more countries. They abolish tariff and other trade restrictions among themselves and adopt a common external tariff against the non-member countries. The static effects of a customs union in a partial equilibrium system, on the lines suggested by Viner, Meade, Lipsey and Johnson, can be studied on the basis of the assumptions given below:

(i) The customs union includes two countries—the home country A and the partner country B.
(ii) The rest of the world is denoted by a third country, say country C.
(iii) The customs union imposes a common external tariff.
(iv) There is an absence of any other type of trade restriction.
(v) The customs union imposes only a specific tariff.
(vi) The three countries produce only one commodity says, X.
(vii) The home country A was the highest cost country and the country C was the least cost country before the formation of the customs union.
(viii) The supply curves are perfectly elastic in countries A and C.
(ix) The production is governed by constant returns to scale.
(x) There is perfect competition in both product and factor markets.
(xi) The supply of productive inputs is fixed.
(xii) There is a state of full employment of resources.
(xiii) The techniques of production are given and constant.
(xiv) The transport costs are absent.
(xv) The home country is originally having balance of trade equilibrium, i.e., exports equal imports.

The effects of customs union on production, consumption and trade, given the above assumptions, can be explained in terms of trade creation and trade diversion due to customs union. They are as follows:

(a) Trade Creation:

The formation of customs union involves the abolition of tariff among the member countries and imposition of common tariff against the rest of the world. These can be explained with the help of table 8.2. Supposed that the home country A is the least efficient country and its unit cost of producing a watch is Rs. 1000. Its partner country B, which is more efficient, the unit cost of production of that watch is Rs. 800. The rest of the world is represented by country C and also the non member country in our case, which is the most efficient and the average cost of producing the same watch is Rs. 700 in that country. Now, before the formation of custom union, the home country A imposes 100 percent tariff on all imports, the unit costs in B and C and the cost of watch become Rs. 1600 and Rs. 1400 respectively. In such case, it is desirable for the home country A to produce the commodity domestically. If the customs union is formed and duty is removed on imports from B but it remains in the case of country C, the partner country B becomes the least cost country. Now the home country will prefer to import watches from B rather than produce it domestically. So the formation of customs union has resulted in the trade creation.

Table 8.2: A Case of Trade Creation

Country	**A**	**B**	**C**
Cost (Rs)	1000	800	700
Cost (Rs) with Imposition of 100% import duty	1000	1600	1400
Cost (Rs) after Custom Union formed	1000	800	1400

(b) Trade Diversion:

In case of trade diversion, before the formation of custom union, given commodity (in our case is watch) was imported from the most efficient and least cost country that is country C. After the custom union was formed, as duty is removed from import from the partner country B, while it remains enforced on imports from C, the former becomes the least cost

country. In such a situation, the home country A will start importing watches from the partner country B rather than non-member country C. Thus there is diversion of trade from outside country C to the partner country B after the formation of the customs union. It may be explained through the Table 8.3.

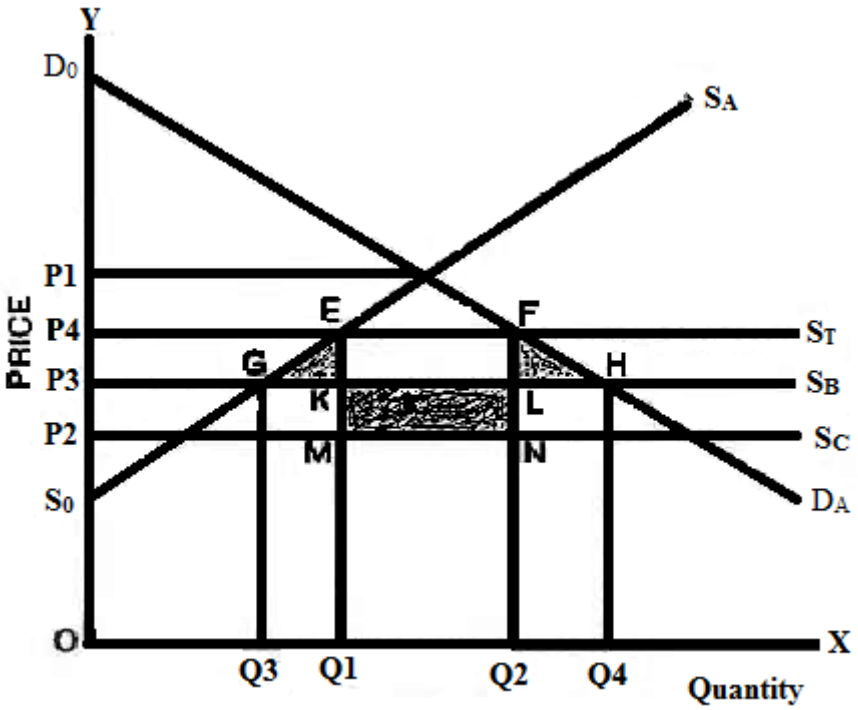
Table 8.3

Country	**A**	**B**	**C**
Cost (Rs)	**1000**	**800**	**600**
Cost (Rs) with Imposition of 100% import duty	**1000**	**1200**	**900**
Cost (Rs) after Custom Union formed	**1000**	**800**	**900**

Table 8.3 shows that the unit costs of watch in the home country (A), partner country (B) and non-member country (C) before the formation of the customs union were Rs. 1000, Rs. 800 and Rs. 600 respectively. Thus country C was the least cost or the most efficient country and the home country A was the highest cost country. As the home country imposes 50 percent duty on all imports, the unit costs in A, B and C become Rs. 1000, Rs. 1200 and Rs. 900 respectively. Since country C is the least cost country, watches will be imported by A from country C.

After the formation of the customs union, the import duty is abolished on imports from B, while it remains in case of non-member country C. The unit costs, in this situation, are Rs. 1000, Rs. 800 and Rs. 900 in case of A, B and C respectively. As a consequence, country A will prefer to import watches from country B (partner country) rather than the outside country C. Thus the formation of customs union results in the diversion of trade from an outside country to the partner country. This is called as the trade diversion.

The partial equilibrium effects of the formation of the customs union can be analyzed with the help of Fig. 8.1.



In Fig. 8.1, quantity of the commodity (watches) is measured along the horizontal axis and price along the vertical axis. D_A and S_A are the demand and supply curves respectively of the home country A. S_B and S_C are the perfectly elastic supply curves of countries B and C respectively. The selling price of country A is OP_1 whereas the selling prices of countries B and C are respectively OP_3 and OP_2. Thus country C is the most efficient and the home country A is the least efficient. Before the formation of the customs union, country A imposes P_2P_4 per unit tariff on all imports. Now the tariff-ridden price for country C is OP_2 + P_2P_4 = OP_4. It is still lower than A's selling price OP_1. Country B is out of picture because its selling price inclusive of tariff is even higher than A's selling price. Country A will enter into trade with country C.

At the tariff-ridden price OP_4, the domestic production by country A is OQ_1 and the demand is OQ_2 so that the quantity imported from country C is Q_1Q_2. The consumer's surplus in this trade equilibrium is D_0FP4 and producer's surplus is S_0EP_4. The revenue receipts of the government in country A are EFLK. The measure of welfare before the formation of the customs union is D_0FP_4 + S_0EP_4 + EFLK = D_0FLKE S_0. If customs union is formed and the tariffs are removed in case of partner country B, while the tariff continue to remain exist in case of the non-member country C. As the selling price OP_3 of country B is lower than that of country C, the home country will import watches from the partner country B and country C

gets eliminated from trade. The main effects after the formation of customs union are as follows:

a. Price Effect:

As compared to the tariff-ridden price OP_4, there is a fall in the selling price to OP_3 after the customs union is formed.

b. Production Effect:

Before the formation of the custom union, the domestic production in country A was OQ_1. After the customs union is formed, the domestic production falls from OQ_1 to OQ_3. This fall in output is met through imports. The overall import is Q_3Q_4 which is more than the earlier imports Q_1Q_2. The increase in imports Q_1Q_3 that offsets the fall in domestic production is termed as Trade Creation Effect I.

c. Consumption Effect:

Before the formation of customs union, the quantity demanded was OQ_2 and afterwards it is OQ_4. Thus the demand for watches rises by Q_2Q_4. This additional demand is met through imports from the partner country B. Thus the increase in consumption Q_2Q_4 is the consumption effect. It is referred as Trade Creation Effect II. Jacob Viner had over-looked it but the writers like Meade, Gehrels, Lipsey and Johnson have recognized it.

d. Revenue Effect:

Before the formation of the customs union, the government in country A was obtaining revenues from tariff to the tune of EFNM. After the formation of customs union, since imports are being made from the partner country B, the government does not receive any revenues. Thus there is loss in government revenues to the extent of EFNM. Given the trade creation effects (a) and (b) the total trade creation effect is $(Q_1Q_3 + Q_2O_4)$.

e. Welfare Effect:

The welfare effect due to trade creation can be assessed as below:

Gain in Consumer's Surplus = P_4FHP_3

Loss in Producer's Surplus = P_4EGP_3

Loss in Government Revenues = EFLK

Welfare Effect = $P_4FHP_3 – P_4EGP_3 – EFLK = \Delta EKG + \Delta FLH$

While the trade creation results in a gain in welfare, the diversion of trade from a non-member country (C) to the member country (B) after the formation of customs union, involves some loss in welfare. The reason for it is that the trade gets diverted from a more efficient or low cost country C to the less efficient or high cost country B. Before the

formation of customs union, the home country A was importing Q_1Q_2 quantity of the commodity from the non-member country C. After the formation of customs union, the quantity imported is Q_3Q_4 out of which Q_3Q_1 and Q_2Q_4 can be identified as trade creation effect and the remaining quantity imported Q_1Q_2 is the trade diversion effect.

Before the formation of the customs union, the payment for importing Q_1Q_2 quantity was Q_1EFQ_2. Out of it the revenue receipts to the government of the home country amounted to ($P_2P_4 \times Q_1Q_2$ = EMNF). So the actual payment to country C for the import of Q_1Q_2 quantity of watches was Q_1MNQ_2. After the formation of the customs union, the same quantity Q_1Q_2 is being imported from the partner country B on account of trade diversion. Since no tariff is applicable to B, the total payment to it due to import amounts to $OP_3 \times Q_1Q_2 = KQ_1 \times Q_1Q_2 = Q_1KLQ_2$.Thus there is a larger external payment for importing the same quantity after the formation of the customs union to the extent of $Q_1KLQ_2 - Q_1MNQ_2$ = KMNL which is shown through shaded area in Fig. 8.1. This represents a loss or reduction in welfare. From this, it follows that trade diversion causes a reduction in welfare. The simple reason for the decline in welfare is that the imports are made from less efficient (high cost) partner country B rather than more efficient (low cost) non-member country C.

f. Net Welfare Effect of Custom Union:

The trade creation results in an increase in welfare. It is depicted by areas ΔEKG and ΔFLH in Fig. 18.1. The trade diversion, on the contrary, causes a reduction in welfare. In Fig. 18.1, it has been shown by the area KMNL. Therefore the formation of customs union may either cause a net increase or reduction in welfare.

(i) If KMNL = (ΔEKG + ΔFLH), there is neither an increase nor a decrease in net welfare.

(ii) If KMNL < (ΔEKG + ΔFLH), the formation of customs union results in a net increase in welfare of the home country A.

(iii) If KMNL > (ΔEKG + ΔFLH), the formation of customs union leads to a net loss in welfare in country A.

3.6 Common market

A common market is a formal agreement where a group is formed among several countries in which each member country adopts a common external tariff. In a common market, countries also allow free trade and free movement of labor and capital among the members in the group. The trade arrangement is used to promote free trade and free movement of production factors. The most famous example of a common market is the

European Common Market, which aims to provide the free movement of goods, capital, services, and labor within the European Union.

3.6.1 Conditions required for Common Market

To be defined as a common market, the following conditions must be satisfied:

1. Tariffs, quotas, and all barriers regarding importing and exporting goods and services among members of the common market are eliminated.
2. Common trade restrictions such as tariffs on other countries are adopted by all members of the common market.
3. Production factors such as labour and capital are able to move freely without restriction among member countries.

If one of the conditions is not satisfied, the resulting market is not a common market. For example, if production factors such as labour and capital are not able to move freely without restriction among member countries, it would be defined as a customs union. The main benefits of common market are as follows:

1. Free movement of people, goods, services, and capital

In addition to the removal of tariffs among member countries, the key benefits of a common market include the free movement of people, goods, services, and capital. Therefore, a common market is often regarded as a “single market” as it allows the free movement of production factors without the obstruction created by national borders.

2. Efficiency in production

For an economy, a common market facilitates efficiency among members – factors of production become more efficiently allocated resulting in stronger economic growth. As the market becomes more efficient, inefficiency companies will eventually shut down due to fiercer competition. The companies that remain typically benefit from economies of scale and increased profitability, and innovate more to compete in a more intense competitive landscape.

The main drawbacks of common market are as follows:

1. Decline in competitiveness

The transition to a common market comes with a few drawbacks. For one, companies that have previously been protected and subsidized by the government may struggle to remain afloat in a more competitive landscape. The migration of production factors to other countries may hinder the economic growth of that country and lead to increased unemployment.

2. Trade diversion

Trade diversion occurs when efficient non-members are crowded out of the common market. Furthermore, a country may exhibit depressed wages if it faces an influx in the migration of production factors where supply exceeds demand.

3.7. Let Us Sum Up

All the countries in the world don't follow the uniform trade policy, on the other hand several forms of regional integration have come into existence by removing trade barriers among the trading or partner countries and imposing barriers or tax on non-trading or non-partner countries. The most common form of international economic integration are free trade area, common market and custom unions.

3.8 Key Words

Regional Bloc, Custom Union, Free Trade Area, Common Market, European Common Market, Trade Creation and Trade Diversion

3.9 Questions

1. Explain the different stages of regional integration.
2. Explain the concept of trade creation and trade diversion.
3. Explain the partial equilibrium analysis of trade creation and trade diversion.
4. Write short note on:
    a. Custom Union
    b. Common Market
    c. Free Trade Area

d. Preferential Trading

5. What are the main conditions required for creation of common market.

3.10 Suggested Readings

Mannur H G , International Economcs, Vikash Publishing House

Soderston Bo , The Macmillian Press Ltd., London

Salvator, D, International Economics: Trade and Finance , 10th Edition International Student version, Wiley India Pvt. Ltd

Cherunilam, F, International Economics , Tata Mc Graw Hill Publishing Company Ltd. New Dehli

UNIT- IV
INTERNATIONAL TRADE AND MONETARY ORDER

Structure

4.0 Introduction

If you walk into a supermarket and can buy South American bananas, Brazilian coffee and a bottle of South African wine, you are experiencing the effects of international trade. International trade allows us to expand our markets for both goods and services that otherwise may not have been available to us. It is the reason why you can pick between a Japanese, German or American car. As a result of international trade, the market contains greater competition and therefore more competitive prices, which brings a cheaper product home to the consumer. International trade is the exchange of goods and services between countries. This type of trade gives rise to a world economy, in which prices, or supply and demand, affect and are affected by global events. Political change in Asia, for example, could result in an increase in the cost of labor, thereby increasing the manufacturing costs for an American sneaker company based in Malaysia, which would then result in an increase in the price that you have to pay to buy the tennis shoes at your local mall. A decrease in the cost of labor, on the other hand, would result in you having to pay less for your new shoes. Trading globally gives consumers and countries the opportunity to be exposed to goods and services not available in their own countries. Almost every kind of product can be found on the international market: food, clothes, spare parts, oil, jewelry, wine, stocks, currencies, and water. Services are also traded: tourism, banking, consulting and transportation. A product that is sold to the global market is an export, and a product that is bought from the global market is an import. Imports and exports are accounted for in a country's current account in the balance of payments.

International monetary system refers to a system that forms rules and standards for facilitating international trade among the nations. It helps in reallocating the capital and investment from one nation to another. It is the global network of the government and financial institutions that determine the exchange rate of different currencies for international trade. It is a governing body that sets rules and regulations by which different nations exchange currencies with each other. With the growing complexity in the international trade and financial market, the international monetary system is necessary to assign a standard value of the international currencies. The rules and regulations set by the international monetary system to regulate and control the exchange value of the currencies are agreed upon by the respective governments of the nations. Thus, the government’s stand may affect the decision making of the international monetary system. For example, change in the trade

policy of a government may affect the international trade of goods and services. International monetary system motivates and encourages the nations to participate in the international trade to improve their Balance of Payment (BOP) and minimize the trade deficit. It has grown over the years as a single architectural body with a vision to integrate the global economy. Some of the important achievements of the international monetary system over the years have been the establishment of World Bank and International Monetary Fund in the year 1944.

4.1 Objectives

- To study about Trade and Gold standard
- To understand the reason behind the collapse of the Gold Standard in the inter-war period;
- To study about Bretton - Woods System
- To know about IMF and World Bank
- To know about the fixed exchange rate and its working
- To study the collapse of the Bretton- Woods System and emergence of the floating exchange rate system
- To study the Multilateralism - GATT and WTO regime

4.2 Trade and Gold standard

4.2.1 What is the Gold Standard?

The gold standard can refer to several things, including a fixed monetary regime under which the government's currency is fixed and may be freely converted into gold. It can also refer to a freely competitive monetary system in which gold or bank receipts for gold act as the principal medium of exchange; or to a standard of international trade, wherein some or all countries fix their exchange rate based on the relative gold parity values between individual currencies.

4.2.2 Breaking Down of Gold Standard

The gold standard developed a nebulous definition over time, but is generally used to describe any commodity-based monetary regime that does not rely on un-backed fiat money,

or money that is only valuable because the government forces people to use it. Beyond that, however, there are major differences.

Some gold standards only rely on the actual circulation of physical gold coins and bars, or bullion, but others allow other commodity or paper currencies. Recent historical systems only granted the ability to convert the national currency into gold, thereby limiting the inflationary and deflationary ability of banks or governments.

4.2.3 Why Gold?

Most commodity-money advocates choose gold as a medium of exchange because of its intrinsic properties. Gold has non-monetary uses, especially in jewelry, electronics and dentistry, so it should always retain a minimum level of real demand. It is perfectly and evenly divisible without losing value, unlike diamonds, and does not spoil over time. It is impossible to perfectly counterfeit and has a fixed stock there is only so much gold on Earth, and inflation is limited to the speed of mining.

4.2.4 Advantages and Disadvantages of the Gold Standard

Various advantages of gold standard are as follows:

Simplicity: Gold standard is considered to be a very simple monetary standard. It avoids the complicacies of other standards and can be easily understood by the general public.

Public Confidence: Gold standard promotes public confidence because- (a) gold is universally desired because of its intrinsic value, (b) all kinds of no-gold money, (paper money, token coins, etc.) are convertible into gold, and (c) total volume of currency in the country is directly related to the volume of gold and there is no danger of over-issue currency.

Automatic Working: Under gold standard, the monetary system functions automatically and requires no interference of the government. Given the relationship between gold and quantity of money, changes in gold reserves automatically lead to corresponding changes in the supply of money. Thus, the disequilibrium conditions of adverse or favourable balance of payment on the international level or of inflation or deflation on the domestic level are automatically corrected.

Price Stability: Gold standard ensures internal price stability. Under this monetary system, gold forms the currency base and the prices of gold do not fluctuate much because of the stability in the monetary gold stock of the world and also because the annual production of gold is only a small fraction of world's total existing stock of monetary gold. Thus, the price system which is founded on relatively stable gold base will be more or less stable than under any other monetary standard.

Exchange Stability: Gold standard ensures stability in the rate of exchange between countries. Stability of exchange rate is necessary for the development of international trade and the smooth flow of capital movements among countries. Fluctuations in the exchange rate adversely affect the foreign trade.

Various disadvantages of gold standard are as follows:

Not Always Simple: Gold standard in all its forms is not as simple. The gold coin standard and, to some extent, gold bullion standard may be regarded as simple to understand. But, the gold exchange standard which relates the currency unit of a country to that of the other is by no means simple to be comprehended by a common man.

Lack of Elasticity: Under the gold standard, the monetary system lacks elasticity. Under this standard, money supply depends upon the gold reserves and the gold reserves cannot be easily increased. So money supply is not flexible enough to be changed to meet the changing requirements of the country.

Costly and Wasteful: Gold standard is a costly standard because the medium of exchange consists of expensive metal. It is also a wasteful standard because there is a great wear and tear of the precious metal when gold coins are actually in circulation.

Fair-Weather Standard: The gold standard has been regarded as a fair-weather standard because it works properly in normal or peaceful time, but during the periods of war or economic crisis, it invariably fails. During abnormal periods, those who have gold try to hoard it and those who have paper currency cry for its conversion into gold. In order to protect the falling gold reserves, the monetary authority prefers to suspend the gold standard.

Sacrifice of Internal Stability: The gold standard sacrifices domestic price stability in order to ensure international exchange rate stability. In fact, under gold standard, inflation and deflation respectively are the necessary companions to a favourable and an unfavourable balance of payments. Give the world's total monetary gold stock, an individual country's monetary gold stock, and consequently, the money supply and the internal price level,

changes by the inflow or outflow of gold as a result of international trade. Thus the presence of external trade almost guarantees price instability under gold standard mechanism.

Not Automatic: The automatic working of the gold standard requires the mutual cooperation of the participating countries. But, during the World War I, because of the lack of international cooperation, all types of countries, those receiving gold as well as those losing gold, found it necessary to abandon the gold standard to prevent disastrous inflation on the one hand and even more disastrous deflation and unemployment on the other.

Deflationary: According to Mrs. Joan Robinson, gold standard generally suffers from an inherent bias towards deflation. Under this standard, the gold losing country is under the compulsion to contract money supply in proportion to the fall in gold reserves.

But the gold gaining country, on the other hand, may not increase its money supply in proportion to the increase in gold reserves. Thus, the gold standard, which necessarily produces deflation in the gold losing country, may not generate inflation in gold receiving country.

Economic Dependence: Under gold standard, the problems of one country are passed on to the other countries and it is difficult for an individual country to follow independent economic policy.

Unsuitable for Developing Countries: Gold standard is particularly not suitable to the developing economies which have adopted a policy of planned economic development with an objective to secure self-sufficiency.

4.2.5 Classical Gold Standard Era

The classical gold standard began in England in 1819 and spread to France, Germany, Switzerland, Belgium and the United States. Each government pegged its national currency to a fixed weight in gold. For example, by 1879, U.S. dollars were convertible to gold at a rate of $20.67 per ounce. These parity rates were used to price international transactions. Other countries later joined to gain access to Western trade markets.

There were many interruptions in the gold standard, especially during wartime, and many countries experimented with bimetallic (gold and silver) standards. Governments frequently spent more than their gold reserves could back, and suspensions of national gold standards were extremely common. Moreover, governments struggled to correctly peg the relationship between their national currencies and gold without creating distortions.

As long as governments or central banks retained monopoly privileges over the supply of national currencies, the gold standard proved an ineffective or inconsistent restraint on fiscal policy. The gold standard slowly eroded during the 20th century. This began in the United States in 1933, when Franklin Delano Roosevelt signed an executive order criminalizing the private possession of monetary gold.

After World War II, the Bretton Woods agreement forced Allied countries to accept the U.S. dollar as a reserve rather than gold, and the U.S. government pledged to keep enough gold to back its dollars. In 1971, the Nixon administration terminated the convertibility of U.S. dollars to gold, creating a fiat currency regime.

Check your Progress/ Self Assessment Questions

Why most commodity-money advocates choose gold as a medium of exchange?

What are the most important advantages to using the gold standard?

4.3 Collapse of the Gold Standard in the Inter-war Period

Before World War I, gold standard worked efficiently and remained widely accepted. It succeeded in ensuring exchange stability among the countries. But with the starting of the war in 1914, gold standard was abandoned everywhere mainly because of two reasons: (a) to avoid adverse balance of payments and (b) to prevent gold exports falling into the hands of the enemy.

After the war in 1918, efforts were made to revive gold standard and, by 1925, it was widely established again. But, the great depression of 1929-33 ultimately led to the breakdown of the gold standard which disappeared completely from the world by 1937. The gold standard failed because the rules of the gold standard game were not observed.

1.3.1 Reasons of the decline of the gold standard

A. Violation of Rules of Gold Standard

The successful working of the gold standard requires the observance of the basic rules of the gold standard:

(a) There should be free movement of gold between countries;

(b) There should be automatic expansion or contraction of currency and credit with the inflow and outflow of gold;

(c) The governments in different countries should help facilitate the gold movements by keeping their internal price system flexible in their respective economies.

After World War I, the governments of gold standard countries did not want their people to experience the inflationary and deflationary tendencies which would result by following the gold standard.

B. Restrictions on Free Trade:

The successful working of gold standard requires free and uninterrupted trade of goods between the countries. But during interwar period, most of the gold standard countries abandoned the free trade policy under the impact of narrow nationalism and adopted restrictive policies regarding imports.

This resulted in the reduction in international trade and thus the breakdown of the gold standard.

C. Inelastic Internal Price System:

The gold standard aimed at exchange stability at the expense of the internal price stability. But during the inter-war period, the monetary authorities sought to maintain both exchange stability as well as price stability.

This was impossible because exchange stability is generally accompanied by internal price fluctuations.

D. Unbalanced Distribution of Gold:

A necessary condition for the success of gold standard is the availability of adequate gold stocks and their proper distribution among the member countries.

But in the inter-war period, countries like the U.S.A. and France accumulated too much gold, while countries of Eastern Europe and Germany had very low stocks of gold. This shortage of gold reserves led to the abandonment of the gold standard.

E. External Indebtedness:

Smooth working of gold standard requires that gold should be used for trade purposes and not for the movement of capital. But during the inter-war period, excessive international indebtedness led to the decline of gold standard.

There were three main reasons for the excessive movement of capital between countries:

(a) After World War I, the victor nations forced Germany to pay war reparation in gold,

(b) There was movement of large amounts of short-term capital (often called as refugee capital) from one country to another in search of security,

(c) There was plenty of borrowing by the underdeveloped countries from the advanced countries for investment purpose.

F. Excessive Use of Gold Exchange Standard:

The excessive use of gold exchange standard was also responsible for the break-down of gold standard. Many small countries which were on gold exchange standard kept their reserves in London and New York.

But, rumors of war and abnormal conditions forced the depositing countries to withdraw their gold reserves. This led to the abandonment of the gold standard.

G. Absence of International Monetary Centre:

Movement of gold involves cost. Before 1914, such movement was not needed because London was working as the international monetary centre and the countries having deposit accounts in the London banks adjusted their adverse balance of payments through book entries.

But during inter-war period, London was fast losing its position as an international financial centre. In the absence of such a centre, every country had to keep large stocks of gold with them and large movements of gold had to take place.

This was not proper and easily manageable. Thus, gold standard failed due to the absence of inter-national financial centre after World War I.

H. Lack of Co-operation:

Economic co-operation among the participating countries is a necessary condition for the success of gold standard. But after World War I, there was complete absence of such co-operation among the gold standard countries, which led to the downfall of the gold standard.

I. Political Instability:

Political instability among the European countries also was responsible for the failure of gold standard. There were rumors of war, revolutions, political agitations, fear of transfer of funds to other countries. All these factors threatened the safe working of the gold standard and ultimately led to its abandonment.

J. Great Depression:

The world-wide depression of 1929-33 probably gave the final blow to the gold standard. Falling prices and wide-spread unemployment were the fundamental features of depression which forced the countries to impose high tariffs to restrict imports and thus international trade. The great depression was also responsible for the flight of capital.

K. Rise of Economic Nationalism:

After the World War I, a wave of economic nationalism swept the European countries. With an objective to secure self-sufficiency, each country followed protectionism and thus imposed restrictions on international trade. This was a direct interference in the working of the gold standard.

Check your Progress/ Self Assessment Questions

What are the two main reasons for abandoned of gold standard everywhere during the starting of war in 1914?

Political instability among which countries was responsible for the failure of gold standard?

9.4 Bretton Woods System

The 1944 Bretton Woods agreement established a new global monetary system. It replaced the gold standard with the U.S. dollar as the global currency. By so doing, it established America as the dominant power in the world economy. After the agreement was signed, America was the only country with the ability to print dollars. The agreement created the World Bank and the International Monetary Fund. These U.S.-backed organizations would monitor the new system.

4.4.1 The Bretton Woods Agreement

The Bretton Woods agreement was created in a 1944 conference of all of the World War II allied nations. It took place in Bretton Woods, New Hampshire. Under the agreement, countries promised that their central banks would maintain fixed exchange rates between their currencies and the dollar. How exactly would they do this? If a country's currency value became too weak relative to the dollar, the bank would buy up its currency in foreign exchange markets. That would lower the currency's supply and raise its price. If its currency became too high, the bank would print more. That would increase the supply and lower its price. Members of the Bretton Woods system agreed to avoid trade wars. For example, they wouldn't lower their currencies strictly to increase trade. But they could regulate their currencies under certain conditions. For example, they could take action if foreign direct investment began to destabilize their economies. They could also adjust their currency values to rebuild after a war.

4.4.2 How It Replaced the Gold Standard

Before Bretton Woods, most countries followed the gold standard. That meant each country guaranteed that it would redeem its currency for its value in gold. After Bretton Woods, each member agreed to redeem its currency for U.S. dollars, not gold. Why dollars? The United States held three-fourths of the world's supply of gold. No other currency had enough gold to back it as a replacement. The dollar's value was 1/35 of an ounce of gold. Bretton Woods allowed the world to slowly transition from a gold standard to a U.S. dollar standard. The dollar had now become a substitute for gold. As a result, the value of the dollar began to increase relative to other currencies. There was more demand for it, even though it’s worth in gold remained the same. This discrepancy in value planted the seed for the collapse of the Bretton Woods system three decades later.

4.4.3 Why it was needed

Until World War I, most countries were on the gold standard. But they went off so they could print the currency needed to pay for their war costs. It caused hyperinflation, as the supply of money overwhelmed the demand. The value of money fell so dramatically that, in some cases, people needed wheelbarrows full of cash just to buy a loaf of bread. After the war, countries returned to the safety of the gold standard. All went well until the Great

Depression. After the 1929 stock market crash, investors switched to forex trading and commodities. It drove up the price of gold, resulting in people redeeming their dollars for gold. The Federal Reserve made things worse by defending the nation's gold reserve by raising interest rates. It's no wonder that countries were ready to abandon a pure gold standard. The Bretton Woods system gave nations more flexibility than a strict adherence to the gold standard. It also provided less volatility than a currency system with no standard at all. A member country still retained the ability to alter its currency's value if needed to correct a "fundamental disequilibrium" in its current account balance.

4.4.4 Role of the IMF and World Bank

The Bretton Woods system could not have worked without the IMF. Member countries needed it to bail them out if their currency values got too low. They'd need a kind of global central bank they could borrow from in case they needed to adjust their currency's value and didn't have the funds themselves. Otherwise, they would just slap on trade barriers or raise interest rates. The Bretton Woods countries decided against giving the IMF the power of a global central bank. This power involved printing money as needed. Instead, they agreed to contribute to a fixed pool of national currencies and gold to be held by the IMF. Each member of the Bretton Woods system was then entitled to borrow what it needed, within the limits of its contributions. The IMF was also responsible for enforcing the Bretton Woods agreement. The World Bank, despite its name, was not the world's central bank. At the time of the Bretton Woods agreement, the World Bank was set up to lend to the European countries devastated by World War II. Now the purpose of the World Bank is to loan money to economic development projects in emerging market countries.

4.4.5 The Collapse of the Bretton Woods System

In 1971, the United States was suffering from massive stagflation. That's a deadly combination of inflation and recession. It was partly a result of the dollar's role as a global currency. In response, President Nixon started to deflate the dollar's value in gold. Nixon revalued the dollar to 1/38 of an ounce of gold, then 1/42 of an ounce. But the plan backfired. It created a run on the U.S. gold reserves at Fort Knox as people redeemed their quickly devaluing dollars for gold. In 1973, Nixon unhooked the value of the dollar from gold

altogether. Without price controls, gold quickly shot up to $120 per ounce in the free market. The Bretton Woods system was over.

A floating exchange rate is a regime where the currency price of a nation is set by the forex market based on supply and demand relative to other currencies. This is in contrast to a fixed exchange rate, in which the government entirely or predominantly determines the rate.

Check your Progress/ Self Assessment Questions

In which year Bretton Woods agreement established a new global monetary system?

What is Stagflation?

4.5 IMF and World Bank

4.5.1 The International Monetary Fund (IMF)

The International Monetary Fund (IMF)is an organization of 189 countries, working to foster global monetary cooperation, secure financial stability, facilitate international trade, promote high employment and sustainable economic growth, and reduce poverty around the world. Created in 1945, the IMF is governed by and accountable to the 189 countries that make up its near-global membership. The IMF's primary purpose is to ensure the stability of the international monetary system—the system of exchange rates and international payments that enables countries (and their citizens) to transact with each other. The Fund's mandate was updated in 2012 to include all macroeconomic and financial sector issues that bear on global stability.

4.5.1.1 Working of IMF

The IMF’s fundamental mission is to ensure the stability of the international monetary system. It does so in three ways: keeping track of the global economy and the economies of member countries; lending to countries with balance of payments difficulties; and giving practical help to members.

A. Economic Surveillance

The IMF oversees the international monetary system and monitors the economic and financial policies of its 189 member countries. As part of this process, which takes place both

at the global level and in individual countries, the IMF highlights possible risks to stability and advises on needed policy adjustments.

Learn how the IMF helped Vietnam.

(https://www.imf.org/en/Countries/VNM/vietnam-raising-millions-out-of-poverty)

B. Lending

The IMF provides loans to member countries experiencing actual or potential balance of payments problems to help them rebuild their international reserves, stabilize their currencies, continue paying for imports, and restore conditions for strong economic growth, while correcting underlying problems.

Learn how the IMF helped Ireland.

(https://www.imf.org/en/~/link.aspx?_id=DE6407B06AA04ECABB671100BD16E453&_z=z)

C. Capacity Development

The IMF works with governments around the world to modernize their economic policies and institutions, and train their people. This helps countries strengthen their economy, improve growth and create jobs.

Learn how the IMF helped Colombia.

(https://www.imf.org/en/Countries/COL/working-together-colombia-and-the-imf)

4.5.1.2 Organizational Structure of IMF

The IMF has a management team and 17 departments that carry out its country, policy, analytical, and technical work. One department is charged with managing the IMF's resources. This section also explains where the IMF gets its resources and how they are used.

A. Management: The IMF has a Managing Director, who is head of the staff and Chairperson of the Executive Board. The Managing Director is appointed by the Executive Board for a renewable term of five years and is assisted by a First Deputy Managing Director and three Deputy Managing Directors.

B. Staff: The IMF's employees come from all over the world; they are responsible to the IMF and not to the authorities of the countries of which they are citizens. The IMF staff is organized mainly into area; functional; and information, liaison, and support responsibilities.

C. IMF Resources: Most resources for IMF loans are provided by member countries, primarily through their payment of quotas.

D. Quotas: Quota subscriptions are a central component of the IMF's financial resources. Each member country of the IMF is assigned a quota, based broadly on its relative position in the world economy.

E. Special Drawing Rights (SDR): The SDR is an international reserve asset, created by the IMF in 1969 to supplement its member countries' official reserves.

F. Gold: Gold remains an important asset in the reserve holdings of several countries, and the IMF is still one of the world's largest official holders of gold.

Borrowing Arrangements: While quota subscriptions of member countries are the IMF's main source of financing, the Fund can supplement its quota resources through borrowing if it believes that they might fall short of members' needs.

4.5.1.3 Governance of IMF

A. Governance Structure: The IMF has evolved along with the global economy throughout its 70-year history, allowing the organization to retain a central role within the international financial architecture.

B. Country Representation: Unlike the General Assembly of the United Nations, where each country has one vote, decision making at the IMF was designed to reflect the relative positions of its member countries in the global economy. The IMF continues to undertake reforms to ensure that its governance structure adequately reflects fundamental changes taking place in the world economy.

C. Accountability: Created in 1945, the IMF is governed by and accountable to the 189 countries that make up its near-global membership. Decision making at the IMF was designed to reflect the relative positions of its member countries in the global economy.

D. Transparency: The IMF has policies in place to ensure that meaningful and accurate information—both about its own role in the global economy and the economies of its member countries—is provided in real time to its global audiences.

E. Corporate Giving: The IMF Giving Together campaign guides the IMF's humanitarian and community outreach efforts.

4.5.2 World Bank

The World Bank Group consists of five organizations:

A. The International Bank for Reconstruction and Development

The International Bank for Reconstruction and Development (IBRD) lends to governments of middle-income and creditworthy low-income countries.

B. The International Development Association

The International Development Association (IDA) provides interest-free loans- called credits- and grants to governments of the poorest countries. Together, IBRD and IDA make up the World Bank.

C. The International Finance Corporation

The International Finance Corporation (IFC) is the largest global development institution focused exclusively on the private sector. We help developing countries achieve sustainable growth by financing investment, mobilizing capital in international financial markets, and providing advisory services to businesses and governments.

D. The Multilateral Investment Guarantee Agency

The Multilateral Investment Guarantee Agency (MIGA) was created in 1988 to promote foreign direct investment into developing countries to support economic growth, reduce poverty, and improve people's lives. MIGA fulfills this mandate by offering political risk insurance (guarantees) to investors and lenders.

E. The International Centre for Settlement of Investment Disputes

The International Centre for Settlement of Investment Disputes (ICSID) provides international facilities for conciliation and arbitration of investment disputes.

4.5.2.1 Functioning of World Bank

The World Bank Group has set two goals for the world to achieve by 2030:

A. End extreme poverty by decreasing the percentage of people living on less than $1.90 a day to no more than 3%.

B. Promote shared prosperity by fostering the income growth of the bottom 40% for every country.

The World Bank is a vital source of financial and technical assistance to developing countries around the world. We are not a bank in the ordinary sense but a unique partnership to reduce poverty and support development. The World Bank Group comprises five institutions managed by their member countries. Established in 1944, the World Bank Group

is headquartered in Washington, D.C. We have more than 10,000 employees in more than 120 offices worldwide.

4.5.2.2 Financial Products and Services

The World Bank provide low-interest loans, zero to low-interest credits, and grants to developing countries. These support a wide array of investments in such areas as education, health, public administration, infrastructure, financial and private sector development, agriculture, and environmental and natural resource management. Some of our projects are co-financed with governments, other multilateral institutions, commercial banks, export credit agencies, and private sector investors. The World Bank also provide or facilitate financing through trust fund partnerships with bilateral and multilateral donors. Many partners have asked the Bank to help manage initiatives that address needs across a wide range of sectors and developing regions.

4.5.2.3 Innovative Knowledge Sharing

The World Bank offer support to developing countries through policy advice, research and analysis, and technical assistance. Our analytical work often underpins World Bank financing and helps inform developing countries' own investments. In addition, the World Bank support capacity development in the countries we serve. The World Bank also sponsor, host, or participate in many conferences and forums on issues of development, often in collaboration with partners. To ensure that countries can access the best global expertise and help generate cutting-edge knowledge, the Bank is constantly seeking to improve the way it shares its knowledge and engages with clients and the public at large.

4.5.2.4 History of the World Bank

The World Bank was created in 1944 out of the Bretton Woods agreement, which was secured under the auspices of the United Nations in the latter days of World War II because many European and Asian countries were going to need financing to fund post-war reconstruction efforts. The bank is headquartered in Washington, D.C., and currently has more than 10,000 employees in more than 120 offices worldwide. It has expanded from a

single institution to a group of five unique and cooperative institutional organizations. The first organization is the International Bank for Reconstruction and Development (IBRD), an institution that provides debt financing to governments that are considered middle income. The second organization within the World Bank is the International Development Association (IDA), a group that gives interest-free loans to the governments of poor countries. The International Finance Corporation (IFC), the third organization, focuses on the private sector and provides developing countries with investment financing and financial advisory services. The fourth part of the World Bank is the Multilateral Investment Guarantee Agency (MIGA), an organization that promotes foreign direct investments in developing countries. The fifth organization is the International Centre for Settlement of Investment Disputes (ICSID), an entity that provides arbitration on international investment disputes.

Check your Progress/ Self Assessment Questions

International Monetary Fund (IMF) is an organization of how many nations?

How many organizations are there in The World Bank Group?

4.6 Fixed Exchange Rate and its Working

A fixed exchange rate is a regime applied by a government or central bank ties the country's currency official exchange rate to another country's currency or the price of gold. The purpose of a fixed exchange rate system is to keep a currency's value within a narrow band.
Fixed rates provide greater certainty for exporters and importers. Fixed rates also help the government maintain low inflation, which, in the long run, keep the interest rates down and stimulates trade and investment. Most major industrialized nations have had floating exchange rate systems, where the going price on the foreign exchange market (forex) sets its currency price. This practice began for these nations in the early 1970s while developing economies continue with fixed rate systems.

4.6.1 Fixed Exchange Rate Bretton Woods Background

From the end of World War II to the early 1970s, the Bretton Woods Agreement pegged the exchange rates of participating nations to the value of the U.S. dollar, which was fixed to the price of gold. When the United States' postwar balance of payments surplus turned to a deficit in the 1950s and 1960s, the periodic exchange rate adjustments permitted under the agreement ultimately proved insufficient. In 1973, President Richard Nixon removed the United States from the gold standard, ushering in the era of floating rates.

4.6.2 The Beginnings of the Monetary Union

The European Exchange Rate Mechanism (ERM) was established in 1979 as a precursor to monetary union and the introduction of the euro. Member nations, including Germany, France, the Netherlands, Belgium, Spain, and Italy, agreed to maintain their currency rates within plus or minus 2.25 % of a central point. The United Kingdom joined in October 1990 at an excessively strong conversion rate and was forced to withdraw two years later. The original members of the euro converted from their home currencies at their then-current ERM central rate as of Jan. 1, 1999. The euro itself trades freely against other major currencies while the currencies of countries hoping to join trade in a managed float known as ERM II.

4.6.3 Disadvantages of Fixed Exchange Rates

Developing economies often use a fixed-rate system to limit speculation and provide a stable system. A stable system allows importers, exporters, and investors to plan without worrying about currency moves. However, a fixed-rate system limits a central bank's ability to adjust interest rates as needed for economic growth. A fixed-rate system also prevents market adjustments when a currency becomes over or undervalued. Effective management of a fixed-rate system also requires a large pool of reserves to support the currency when it is under pressure. An unrealistic official exchange rate can also lead to the development of a parallel, unofficial, or dual, exchange rate. A large gap between the official and unofficial rates can divert hard currency away from the central bank, which can lead to forex shortages and periodic large devaluations. These can be more disruptive to an economy than the periodic adjustment of a floating exchange rate regime.

Check your Progress/ Self Assessment Questions

European Exchange Rate Mechanism (ERM) was established in which year?

When the United Kingdom joined ERM?

4.7 Collapse of the Bretton- Woods System and emergence of the floating exchange rate system

A floating exchange rate is a regime where the currency price of a nation is set by the forex market based on supply and demand relative to other currencies. This is in contrast to a fixed exchange rate, in which the government entirely or predominantly determines the rate.

4.7.1 How a Floating Exchange Rate Works

Floating exchange rate systems mean long-term currency price changes reflect relative economic strength and interest rate differentials between countries. Short-term moves in a floating exchange rate currency reflect speculation, rumors, disasters, and every day supply and demand for the currency. If supply outstrips demand that currency will fall, and if demand outstrips supply that currency will rise. Extreme short-term moves can result in intervention by central banks, even in a floating rate environment. Because of this, while most major global currencies are considered floating, central banks and governments may step in if a nation's currency becomes too high or too low. A currency that is too high or too low could affect the nation's economy negatively, affecting trade and the ability to pay debts. The government or central bank will attempt to implement measures to move their currency to a more favorable price.

4.7.2 Floating Versus Fixed Exchange Rates

Currency prices can be determined in two ways: a floating rate or a fixed rate. As mentioned above, the floating rate is usually determined by the open market through supply and demand. Therefore, if the demand for the currency is high, the value will increase. If demand is low, this will drive that currency price lower. A fixed or pegged rate is determined by the government through its central bank. The rate is set against another major world currency (such as the U.S. dollar, euro, or yen). To maintain its exchange rate, the government will buy and sell its own currency against the currency to which it is pegged. Some countries that choose to peg their currencies to the U.S. dollar include China and Saudi Arabia. The currencies of most of the world's major economies were allowed to float freely following the collapse of the Bretton Woods system between 1968 and 1973.

4.7.3 History of Floating Exchange Rates via the Bretton Woods Agreement

The Bretton Woods Conference, which established a gold standard for currencies, took place in July 1944. A total of 44 countries met, with attendees limited to the Allies in World War II. The Conference established the International Monetary Fund (IMF) and the World Bank, and it set out guidelines for a fixed exchange rate system. The system established a gold price of $35 per ounce, with participating countries pegging their currency to the dollar. Adjustments of plus or minus one percent were permitted. The U.S. dollar became the reserve currency through which central banks carried out intervention to adjust or stabilize rates. The first large crack in the system appeared in 1967, with a run on gold and an attack on the British pound that led to a 14.3 % devaluation. President Richard Nixon took the United States off the gold standard in 1971. By late 1973, the system had collapsed, and participating currencies were allowed to float freely.

4.7.4 Failed Attempt to Intervene in a Currency

In floating exchange rate systems, central banks buy or sell their local currencies to adjust the exchange rate. This can be aimed at stabilizing a volatile market or achieving a major change in the rate. Groups of Central Banks, such as those of the G-7 nations (Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States), often work together in coordinated interventions to increase the impact. An intervention is often short-term and does not always succeed. A prominent example of a failed intervention took place in 1992 when financier George Soros spearheaded an attack on the British pound. The currency had entered the European Exchange Rate Mechanism (ERM) in October 1990; the ERM was designed to limit currency volatility as a lead-in to the euro, which was still in the planning stages. Soros believed that the pound had entered at an excessively high rate, and he mounted a concerted attack on the currency. The Bank of England was forced to devalue the currency and withdraw from the ERM. The failed intervention cost the U.K. Treasury a reported £3.3 billion. Soros, on the other hand, made over $1 billion. Central banks can also intervene indirectly in the currency markets by raising or lowering interest rates to impact the flow of investors' funds into the country. Since attempts to control prices within tight bands have historically failed, many nations opt to free float their currency and then use economic tools to help nudge it one direction or the other if it moves too far for their comfort.

Check your Progress/ Self Assessment Questions

What is floating exchange rate?

How the central banks adjust the exchange rate under floating exchange rate systems?

4.8 Multilateralism - GATT and WTO regime

Multilateralism is a process of organizing relations between groups of three or more states. Beyond that basic quantitative aspect, multilateralism is generally considered to comprise certain qualitative elements or principles that shape the character of the arrangement or institution. Those principles are an indivisibility of interests among participants, a commitment to diffuse reciprocity, and a system of dispute settlement intended to enforce a particular mode of behaviour.

4.8.1 General Agreement on Tariffs and Trade (GATT)

General Agreement on Tariffs and Trade (GATT) set of multilateral trade agreements aimed at the abolition of quotas and the reduction of tariff duties among the contracting nations. When GATT was concluded by 23 countries at Geneva, in 1947 (to take effect on Jan. 1, 1948), it was considered an interim arrangement pending the formation of a United Nations agency to supersede it. When such an agency failed to emerge, GATT was amplified and further enlarged at several succeeding negotiations. It subsequently proved to be the most effective instrument of world trade liberalization, playing a major role in the massive expansion of world trade in the second half of the 20th century. By the time GATT was replaced by the World Trade Organization (WTO) in 1995, 125 nations were signatories to its agreements, which had become a code of conduct governing 90 percent of world trade. GATT's most important principle was that of trade without discrimination, in which each member nation opened its markets equally to every other. As embodied in unconditional most-favored nation clauses, this meant that once a country and its largest trading partners had agreed to reduce a tariff, that tariff cut was automatically extended to every other GATT member. GATT included a long schedule of specific tariff concessions for each contracting nation, representing tariff rates that each country had agreed to extend to others. Another fundamental principle was that of protection through tariffs rather than through import quotas or other quantitative trade restrictions; GATT systematically sought to eliminate the latter. Other general rules included uniform customs regulations and the obligation of each

contracting nation to negotiate for tariff cuts upon the request of another. An escape clause allowed contracting countries to alter agreements if their domestic producers suffered excessive losses as a result of trade concessions. GATT's normal business involved negotiations on specific trade problems affecting particular commodities or trading nations, but major multilateral trade conferences were held periodically to work out tariff reductions and other issues. Seven such "rounds" were held from 1947 to 1993, starting with those held at Geneva in 1947 (concurrent with the signing of the general agreement); at Annecy, France, in 1949; at Torquay, Eng., in 1951; and at Geneva in 1956 and again in 1960–62. The most important rounds were the so-called Kennedy Round (1964–67), the Tokyo Round (1973–79), and the Uruguay Round (1986–94), all held at Geneva. These agreements succeeded in reducing average tariffs on the world's industrial goods from 40 percent of their market value in 1947 to less than 5 percent in 1993. The Uruguay Round negotiated the most ambitious set of trade-liberalization agreements in GATT's history. The worldwide trade treaty adopted at the round's end slashed tariffs on industrial goods by an average of 40 percent, reduced agricultural subsidies, and included groundbreaking new agreements on trade in services. The treaty also created a new and stronger global organization, the WTO, to monitor and regulate international trade. GATT went out of existence with the formal conclusion of the Uruguay Round on April 15, 1994. Its principles and the many trade agreements reached under its auspices were adopted by the WTO.

4.8.2 World Trade Organization (WTO)

The World Trade Organization (WTO) is the only global international organization dealing with the rules of trade between nations. At its heart are the WTO agreements, negotiated and signed by the bulk of the world's trading nations and ratified in their parliaments. The goal is to ensure that trade flows as smoothly, predictably and freely as possible. There are a number of ways of looking at the World Trade Organization. It is an organization for trade opening. It is a forum for governments to negotiate trade agreements. It is a place for them to settle trade disputes. It operates a system of trade rules. Essentially, the WTO is a place where member governments try to sort out the trade problems they face with each other. The WTO was born out of negotiations, and everything the WTO does is the result of negotiations. The bulk of the WTO's current work comes from the 1986–94 negotiations called the Uruguay Round and earlier negotiations under the General Agreement on Tariffs and Trade (GATT). The WTO is currently the host to new negotiations, under the

'Doha Development Agenda' launched in 2001. Where countries have faced trade barriers and wanted them lowered, the negotiations have helped to open markets for trade. But the WTO is not just about opening markets, and in some circumstances its rules support maintaining trade barriers — for example, to protect consumers or prevent the spread of disease. At its heart are the WTO agreements, negotiated and signed by the bulk of the world's trading nations. These documents provide the legal ground rules for international commerce. They are essentially contracts, binding governments to keep their trade policies within agreed limits. Although negotiated and signed by governments, the goal is to help producers of goods and services, exporters, and importers conduct their business, while allowing governments to meet social and environmental objectives. The system's overriding purpose is to help trade flow as freely as possible — so long as there are no undesirable side effects — because this is important for economic development and well-being. That partly means removing obstacles. It also means ensuring that individuals, companies and governments know what the trade rules are around the world, and giving them the confidence that there will be no sudden changes of policy. In other words, the rules have to be 'transparent' and predictable. Trade relations often involve conflicting interests. Agreements, including those painstakingly negotiated in the WTO system, often need interpreting. The most harmonious way to settle these differences is through some neutral procedure based on an agreed legal foundation. That is the purpose behind the dispute settlement process written into the WTO agreements.

Check your Progress/ Self Assessment Questions

When GATT was concluded?

In which year Doha Development Agenda was launched?

4.9 Let Us Sum Up

In this unit we were able to understand about Gold Standard with the reasons for its breaking down with its advantages and disadvantages followed by collapse of the Gold Standard in the inter-war period. Then we have discussed about Bretton Woods System, how it replaced the Gold Standard and why it was needed. We have also discussed about the role of the IMF and World Bank and the collapse of the Bretton Woods System. We have understand about IMF and World Bank followed by Fixed Exchange Rate and its working, the beginnings of the Monetary Union and disadvantages of Fixed Exchange Rates. Then we have analyzed about Collapse of the Bretton- Woods System and emergence of the floating

exchange rate system, how a floating exchange rate works, how it differ from fixed exchange rates. Finally we have discussed about Multilateralism with special reference to GATT and WTO regime in the present unit.

4.10 Key Terms

Gold Standard: The gold standard can refer to several things, including a fixed monetary regime under which the government's currency is fixed and may be freely converted into gold. It can also refer to a freely competitive monetary system in which gold or bank receipts for gold act as the principal medium of exchange; or to a standard of international trade, wherein some or all countries fix their exchange rate based on the relative gold parity values between individual currencies.

International Monetary Fund (IMF): It is an organization of 189 countries, working to foster global monetary cooperation, secure financial stability, facilitate international trade, promote high employment and sustainable economic growth, and reduce poverty around the world. Created in 1945, the IMF is governed by and accountable to the 189 countries that make up its near-global membership.

International Bank for Reconstruction and Development: The International Bank for Reconstruction and Development (IBRD) lends to governments of middle-income and creditworthy low-income countries.

International Development Association: The International Development Association (IDA) provides interest-free loans- called credits- and grants to governments of the poorest countries. Together, IBRD and IDA make up the World Bank.

International Finance Corporation: The International Finance Corporation (IFC) is the largest global development institution focused exclusively on the private sector. We help developing countries achieve sustainable growth by financing investment, mobilizing capital

in international financial markets, and providing advisory services to businesses and governments.

Multilateral Investment Guarantee Agency: The Multilateral Investment Guarantee Agency (MIGA) was created in 1988 to promote foreign direct investment into developing countries to support economic growth, reduce poverty, and improve people's lives. MIGA fulfills this mandate by offering political risk insurance (guarantees) to investors and lenders.

International Centre for Settlement of Investment Disputes: The International Centre for Settlement of Investment Disputes (ICSID) provides international facilities for conciliation and arbitration of investment disputes.

Fixed Exchange Rate: It is a regime applied by a government or central bank ties the country's currency official exchange rate to another country's currency or the price of gold. The purpose of a fixed exchange rate system is to keep a currency's value within a narrow band.

Floating Exchange Rate: It is a regime where the currency price of a nation is set by the forex market based on supply and demand relative to other currencies. This is in contrast to a fixed exchange rate, in which the government entirely or predominantly determines the rate.

Multilateralism: It is a process of organizing relations between groups of three or more states. Beyond that basic quantitative aspect, multilateralism is generally considered to comprise certain qualitative elements or principles that shape the character of the arrangement or institution. Those principles are an indivisibility of interests among participants, a commitment to diffuse reciprocity, and a system of dispute settlement intended to enforce a particular mode of behaviour.

4.11 Answer to 'Check Your Progress'

Q. Why most commodity-money advocates choose gold as a medium of exchange?

A. Most commodity-money advocates choose gold as a medium of exchange because of its intrinsic properties.

Q. What are the most important advantages to using the gold standard?

A. There are many advantages to using the gold standard are price stability and it can also reduce the uncertainty in international trade.

Q. What are the two main reasons for abandoned of gold standard everywhere during the starting of war in 1914?

A. The two reasons are (a) to avoid adverse balance of payments and (b) to prevent gold exports falling into the hands of the enemy.

Q. Political instability among which countries was responsible for the failure of gold standard?

A. Political instability among the European countries also was responsible for the failure of gold standard.

Q. In which year Bretton Woods agreement established a new global monetary system?

A. Bretton Woods agreement established a new global monetary system in the year 1944.

Q. What is Stagflation?

A. It is a deadly combination of inflation and recession.

Q. International Monetary Fund (IMF) is an organization of how many nations?

A. It is an organization of 189 nations created in 1945.

Q. How many organizations are there in The World Bank Group?

A. The World Bank Group consists of five organizations.

Q. European Exchange Rate Mechanism (ERM) was established in which year?

A. European Exchange Rate Mechanism (ERM) was established in 1979.

Q. When the United Kingdom joined ERM?

A. The United Kingdom joined ERM in October 1990

Q. What is floating exchange rate?

A. A floating exchange rate is a regime where the currency price of a nation is set by the forex market based on supply and demand relative to other currencies.

Q. How the central banks adjust the exchange rate under floating exchange rate systems?

A. In floating exchange rate systems, central banks buy or sell their local currencies to adjust the exchange rate.

Q. When GATT was concluded?

A. GATT was concluded in 1947

Q. In which year Doha Development Agenda was launched?

A. Doha Development Agenda was launched in the year 2001.

4.12 Questions and Answers

4.12.1 Short-Answer Questions

Q. What is the Gold Standard?

A. The gold standard can refer to several things, including a fixed monetary regime under which the government's currency is fixed and may be freely converted into gold. It can also refer to a freely competitive monetary system in which gold or bank receipts for gold act as the principal medium of exchange; or to a standard of international trade, wherein some or all countries fix their exchange rate based on the relative gold parity values between individual currencies.

Q. What is Bretton Woods Agreement?

A. The Bretton Woods agreement was created in a 1944 conference of all of the World War II allied nations. It took place in Bretton Woods, New Hampshire. Under the agreement, countries promised that their central banks would maintain fixed exchange rates between their currencies and the dollar. How exactly would they do this? If a country's currency value became too weak relative to the dollar, the bank would buy up its currency in foreign exchange markets. That would lower the currency's supply and raise its price. If its currency became too high, the bank would print more. That would increase the supply and lower its price. Members of the Bretton Woods system agreed to avoid trade wars. For example, they wouldn't lower their currencies strictly to increase trade. But they could regulate their currencies under certain conditions. For example, they could take action if foreign direct investment began to destabilize their economies. They could also adjust their currency values to rebuild after a war.

Q. Explain the roles of the IMF and World Bank in the enforcement of Bretton Woods Agreements.

The Bretton Woods system could not have worked without the IMF. Member countries needed it to bail them out if their currency values got too low. They'd need a kind of global central bank they could borrow from in case they needed to adjust their currency's value and didn't have the funds themselves. Otherwise, they would just slap on trade barriers or raise interest rates. The Bretton Woods countries decided against giving the IMF the power of a global central bank. This power involved printing money as needed. Instead, they agreed to contribute to a fixed pool of national currencies and gold to be held by the IMF. Each member of the Bretton Woods system was then entitled to borrow what it needed, within the

limits of its contributions. The IMF was also responsible for enforcing the Bretton Woods agreement. The World Bank, despite its name, was not the world's central bank. At the time of the Bretton Woods agreement, the World Bank was set up to lend to the European countries devastated by World War II. Now the purpose of the World Bank is to loan money to economic development projects in emerging market countries.

Q. What are the reasons for the collapse of the Bretton Woods System?

In 1971, the United States was suffering from massive stagflation. That's a deadly combination of inflation and recession. It was partly a result of the dollar's role as a global currency. In response, President Nixon started to deflate the dollar's value in gold. Nixon revalued the dollar to 1/38 of an ounce of gold, then 1/42 of an ounce. But the plan backfired. It created a run on the U.S. gold reserves at Fort Knox as people redeemed their quickly devaluing dollars for gold. In 1973, Nixon unhooked the value of the dollar from gold altogether. Without price controls, gold quickly shot up to $120 per ounce in the free market. The Bretton Woods system was over.

A floating exchange rate is a regime where the currency price of a nation is set by the forex market based on supply and demand relative to other currencies. This is in contrast to a fixed exchange rate, in which the government entirely or predominantly determines the rate.

Q. What are the organization that consists of the World Bank Group?

A. The World Bank Group of the following five organizations:

1. The International Bank for Reconstruction and Development
2. The International Development Association
3. The International Finance Corporation
4. The Multilateral Investment Guarantee Agency
5. The International Centre for Settlement of Investment Disputes

Q. What are two goals set by the World Bank to be achieved by 2030?

A. The World Bank Group has set two goals for the world to achieve by 2030:

1. End extreme poverty by decreasing the percentage of people living on less than $1.90 a day to no more than 3%.

2. Promote shared prosperity by fostering the income growth of the bottom 40% for every country.

Q. Briefly discuss about the history of the World Bank.

A. The World Bank was created in 1944 out of the Bretton Woods agreement, which was secured under the auspices of the United Nations in the latter days of World War II because many European and Asian countries were going to need financing to fund post-war

reconstruction efforts. The bank is headquartered in Washington, D.C., and currently has more than 10,000 employees in more than 120 offices worldwide. It has expanded from a single institution to a group of five unique and cooperative institutional organizations. The first organization is the International Bank for Reconstruction and Development (IBRD), an institution that provides debt financing to governments that are considered middle income. The second organization within the World Bank is the International Development Association (IDA), a group that gives interest-free loans to the governments of poor countries. The International Finance Corporation (IFC), the third organization, focuses on the private sector and provides developing countries with investment financing and financial advisory services. The fourth part of the World Bank is the Multilateral Investment Guarantee Agency (MIGA), an organization that promotes foreign direct investments in developing countries. The fifth organization is the International Centre for Settlement of Investment Disputes (ICSID), an entity that provides arbitration on international investment disputes.

Q. What are the disadvantages of fixed exchange rates?

A. Developing economies often use a fixed-rate system to limit speculation and provide a stable system. A stable system allows importers, exporters, and investors to plan without worrying about currency moves. However, a fixed-rate system limits a central bank's ability to adjust interest rates as needed for economic growth. A fixed-rate system also prevents market adjustments when a currency becomes over or undervalued. Effective management of a fixed-rate system also requires a large pool of reserves to support the currency when it is under pressure. An unrealistic official exchange rate can also lead to the development of a parallel, unofficial, or dual, exchange rate. A large gap between the official and unofficial rates can divert hard currency away from the central bank, which can lead to forex shortages and periodic large devaluations. These can be more disruptive to an economy than the periodic adjustment of a floating exchange rate regime.

Q. Explain the working of floating exchange rate.

A. Floating exchange rate systems mean long-term currency price changes reflect relative economic strength and interest rate differentials between countries. Short-term moves in a floating exchange rate currency reflect speculation, rumors, disasters, and every day supply and demand for the currency. If supply outstrips demand that currency will fall, and if demand outstrips supply that currency will rise. Extreme short-term moves can result in intervention by central banks, even in a floating rate environment. Because of this, while most major global currencies are considered floating, central banks and governments may step in if a nation's currency becomes too high or too low. A currency that is too high or too

low could affect the nation's economy negatively, affecting trade and the ability to pay debts. The government or central bank will attempt to implement measures to move their currency to a more favorable price.

Q. How floating exchange rate differ from fixed exchange rate?

A. Currency prices can be determined in two ways: a floating rate or a fixed rate. As mentioned above, the floating rate is usually determined by the open market through supply and demand. Therefore, if the demand for the currency is high, the value will increase. If demand is low, this will drive that currency price lower. A fixed or pegged rate is determined by the government through its central bank. The rate is set against another major world currency (such as the U.S. dollar, euro, or yen). To maintain its exchange rate, the government will buy and sell its own currency against the currency to which it is pegged. Some countries that choose to peg their currencies to the U.S. dollar include China and Saudi Arabia. The currencies of most of the world's major economies were allowed to float freely following the collapse of the Bretton Woods system between 1968 and 1973.

4.12.2 Long-Answer Questions

Q. What are the advantages of Gold Standard?

A. **Various advantages of gold standard are as follows:**

1. Simplicity: Gold standard is considered to be a very simple monetary standard. It avoids the complicacies of other standards and can be easily understood by the general public.

2. Public Confidence: Gold standard promotes public confidence because- (a) gold is universally desired because of its intrinsic value, (b) all kinds of no-gold money, (paper money, token coins, etc.) are convertible into gold, and (c) total volume of currency in the country is directly related to the volume of gold and there is no danger of over-issue currency.

3. Automatic Working: Under gold standard, the monetary system functions automatically and requires no interference of the government. Given the relationship between gold and quantity of money, changes in gold reserves automatically lead to corresponding changes in the supply of money. Thus, the disequilibrium conditions of adverse or favourable balance of payment on the international level or of inflation or deflation on the domestic level are automatically corrected.

4. Price Stability: Gold standard ensures internal price stability. Under this monetary system, gold forms the currency base and the prices of gold do not fluctuate much because of the stability in the monetary gold stock of the world and also because the annual production of gold is only a small fraction of world's total existing stock of monetary gold. Thus, the price system which is founded on relatively stable gold base will be more or less stable than under any other monetary standard.

5. Exchange Stability: Gold standard ensures stability in the rate of exchange between countries. Stability of exchange rate is necessary for the development of international trade and the smooth flow of capital movements among countries. Fluctuations in the exchange rate adversely affect the foreign trade.

Q. What are the disadvantages of Gold Standard?

A. Various disadvantages of gold standard are as follows:

1. Not Always Simple: Gold standard in all its forms is not as simple. The gold coin standard and, to some extent, gold bullion standard may be regarded as simple to understand. But, the gold exchange standard which relates the currency unit of a country to that of the other is by no means simple to be comprehended by a common man.

2. Lack of Elasticity: Under the gold standard, the monetary system lacks elasticity. Under this standard, money supply depends upon the gold reserves and the gold reserves cannot be easily increased. So money supply is not flexible enough to be changed to meet the changing requirements of the country.

3. Costly and Wasteful: Gold standard is a costly standard because the medium of exchange consists of expensive metal. It is also a wasteful standard because there is a great wear and tear of the precious metal when gold coins are actually in circulation.

4. Fair-Weather Standard: The gold standard has been regarded as a fair-weather standard because it works properly in normal or peaceful time, but during the periods of war or economic crisis, it invariably fails. During abnormal periods, those who have gold try to hoard it and those who have paper currency cry for its conversion into gold. In order to protect the falling gold reserves, the monetary authority prefers to suspend the gold standard.

5. Sacrifice of Internal Stability: The gold standard sacrifices domestic price stability in order to ensure international exchange rate stability. In fact, under gold standard, inflation and deflation respectively are the necessary companions to a favourable and an unfavourable balance of payments. Give the world's total monetary gold stock, an individual country's

monetary gold stock, and consequently, the money supply and the internal price level, changes by the inflow or outflow of gold as a result of international trade. Thus the presence of external trade almost guarantees price instability under gold standard mechanism.

6. Not Automatic: The automatic working of the gold standard requires the mutual cooperation of the participating countries. But, during the World War I, because of the lack of international cooperation, all types of countries, those receiving gold as well as those losing gold, found it necessary to abandon the gold standard to prevent disastrous inflation on the one hand and even more disastrous deflation and unemployment on the other.

7. Deflationary: According to Mrs. Joan Robinson, gold standard generally suffers from an inherent bias towards deflation. Under this standard, the gold losing country is under the compulsion to contract money supply in proportion to the fall in gold reserves.

But the gold gaining country, on the other hand, may not increase its money supply in proportion to the increase in gold reserves. Thus, the gold standard, which necessarily produces deflation in the gold losing country, may not generate inflation in gold receiving country.

8. Economic Dependence: Under gold standard, the problems of one country are passed on to the other countries and it is difficult for an individual country to follow independent economic policy.

9. Unsuitable for Developing Countries: Gold standard is particularly not suitable to the developing economies which have adopted a policy of planned economic development with an objective to secure self-sufficiency.

Q. What are the primary reasons of the decline of the gold standard?

A. The primary reasons for the decline of the gold standard are as follows:

1. Violation of Rules of Gold Standard: The successful working of the gold standard requires the observance of the basic rules of the gold standard: (a) There should be free movement of gold between countries; (b) There should be automatic expansion or contraction of currency and credit with the inflow and outflow of gold; (c) The governments in different countries should help facilitate the gold movements by keeping their internal price system flexible in their respective economies. After World War I, the governments of gold standard countries did not want their people to experience the inflationary and deflationary tendencies which would result by following the gold standard.

2. Restrictions on Free Trade: The successful working of gold standard requires free and uninterrupted trade of goods between the countries. But during interwar period, most of the gold standard countries abandoned the free trade policy under the impact of narrow nationalism and adopted restrictive policies regarding imports. This resulted in the reduction in international trade and thus the breakdown of the gold standard.

3. Inelastic Internal Price System: The gold standard aimed at exchange stability at the expense of the internal price stability. But during the inter-war period, the monetary authorities sought to maintain both exchange stability as well as price stability. This was impossible because exchange stability is generally accompanied by internal price fluctuations.

4. Unbalanced Distribution of Gold: A necessary condition for the success of gold standard is the availability of adequate gold stocks and their proper distribution among the member countries. But in the inter-war period, countries like the U.S.A. and France accumulated too much gold, while countries of Eastern Europe and Germany had very low stocks of gold. This shortage of gold reserves led to the abandonment of the gold standard.

5. External Indebtedness: Smooth working of gold standard requires that gold should be used for trade purposes and not for the movement of capital. But during the inter-war period, excessive international indebtedness led to the decline of gold standard.

6. Excessive Use of Gold Exchange Standard: The excessive use of gold exchange standard was also responsible for the break-down of gold standard. Many small countries which were on gold exchange standard kept their reserves in London and New York. But, rumors of war and abnormal conditions forced the depositing countries to withdraw their gold reserves. This led to the abandonment of the gold standard.

7. Absence of International Monetary Centre: Movement of gold involves cost. Before 1914, such movement was not needed because London was working as the international monetary centre and the countries having deposit accounts in the London banks adjusted their adverse balance of payments through book entries. But during inter-war period, London was fast losing its position as an international financial centre. In the absence of such a centre, every country had to keep large stocks of gold with them and large movements of gold had to take place. This was not proper and easily manageable. Thus, gold standard failed due to the absence of inter-national financial centre after World War I.

8. Lack of Co-operation: Economic co-operation among the participating countries is a necessary condition for the success of gold standard. But after World War I, there was

complete absence of such co-operation among the gold standard countries, which led to the downfall of the gold standard.

9. Political Instability: Political instability among the European countries also was responsible for the failure of gold standard. There were rumors of war, revolutions, political agitations, fear of transfer of funds to other countries. All these factors threatened the safe working of the gold standard and ultimately led to its abandonment.

10. Great Depression: The world-wide depression of 1929-33 probably gave the final blow to the gold standard. Falling prices and wide-spread unemployment were the fundamental features of depression which forced the countries to impose high tariffs to restrict imports and thus international trade. The great depression was also responsible for the flight of capital.

11. Rise of Economic Nationalism: After the World War I, a wave of economic nationalism swept the European countries. With an objective to secure self-sufficiency, each country followed protectionism and thus imposed restrictions on international trade. This was a direct interference in the working of the gold standard.

Q. Explain the working of IMF.

A. IMF's fundamental mission is to ensure the stability of the international monetary system. It does so in three ways: keeping track of the global economy and the economies of member countries; lending to countries with balance of payments difficulties; and giving practical help to members.

1. Economic Surveillance: The IMF oversees the international monetary system and monitors the economic and financial policies of its 189 member countries. As part of this process, which takes place both at the global level and in individual countries, the IMF highlights possible risks to stability and advises on needed policy adjustments.

2. Lending: The IMF provides loans to member countries experiencing actual or potential balance of payments problems to help them rebuild their international reserves, stabilize their currencies, continue paying for imports, and restore conditions for strong economic growth, while correcting underlying problems.

3. Capacity Development: The IMF works with governments around the world to modernize their economic policies and institutions, and train their people. This helps countries strengthen their economy, improve growth and create jobs.

Q. Explain multilateralism in the context of GATT and WTO regime.

A. Multilateralism is a process of organizing relations between groups of three or more states. Beyond that basic quantitative aspect, multilateralism is generally considered to comprise certain qualitative elements or principles that shape the character of the arrangement or institution. Those principles are an indivisibility of interests among participants, a commitment to diffuse reciprocity, and a system of dispute settlement intended to enforce a particular mode of behaviour. General Agreement on Tariffs and Trade (GATT) set of multilateral trade agreements aimed at the abolition of quotas and the reduction of tariff duties among the contracting nations. When GATT was concluded by 23 countries at Geneva, in 1947 (to take effect on Jan. 1, 1948), it was considered an interim arrangement pending the formation of a United Nations agency to supersede it. When such an agency failed to emerge, GATT was amplified and further enlarged at several succeeding negotiations. It subsequently proved to be the most effective instrument of world trade liberalization, playing a major role in the massive expansion of world trade in the second half of the 20th century. The World Trade Organization (WTO) is the only global international organization dealing with the rules of trade between nations. At its heart are the WTO agreements, negotiated and signed by the bulk of the world's trading nations and ratified in their parliaments. The goal is to ensure that trade flows as smoothly, predictably and freely as possible. There are a number of ways of looking at the World Trade Organization. It is an organization for trade opening. It is a forum for governments to negotiate trade agreements. It is a place for them to settle trade disputes. It operates a system of trade rules. Essentially, the WTO is a place where member governments try to sort out the trade problems they face with each other. The WTO was born out of negotiations, and everything the WTO does is the result of negotiations. The bulk of the WTO's current work comes from the 1986–94 negotiations called the Uruguay Round and earlier negotiations under the General Agreement on Tariffs and Trade (GATT). The WTO is currently the host to new negotiations, under the 'Doha Development Agenda' launched in 2001. Where countries have faced trade barriers and wanted them lowered, the negotiations have helped to open markets for trade.

4.13 Suggested Readings

Cherunilam Francis, *International Economics*, McGraw Hill, New Delhi

Acharyya Rajat, *Trade and Environment*, Oxford, New Delhi

Salvatore Dominick, *International Economics - Trade and Finance*, Wiley, New Delhi

Krugman Paul, et.al. *International Economics*, Pearson, New Delhi

Mannur H.G., *International Economics*, S. Chand, New Delhi

Soderston, Bo, *International Economics*, The Macmillan Press Ltd., London

Bhagwati, J. (Ed.), *International Trade: Selected Readings*, Cambridge University Press, Massachusetts

UNIT-V
PROBLEMS OF POLICY IN AN OPEN ECONOMY

Structure

5.0 Introduction

In international trade, when we discuss about the policy, it refers to monetary policy which is the policy implemented by a central bank of a country that controls either the interest rate payable on very short term borrowing or the money supply (credit), often targeting inflation or the interest rate in the market to insure price and general trust in the currency. Further goals of a monetary policy are usually to contribute to the stability of gross domestic product, to achieve and maintain low unemployment, and to maintain predictable exchange rates of the country with other currencies of the world. Theoretically, monetary policy is referred to as being either expansionary or contractionary policy. Expansionary policy occurs when a monetary authority uses its tools to stimulate the economy. An expansionary policy maintains short-term interest rates at a lower than usual rate or increases

the total supply of money in the economy more rapidly than usual. It is traditionally used to try to combat unemployment in a recession by lowering interest rate in the hope that less expensive credit will entice businesses into expanding. This increases aggregate, which boosts short-term growth as measured by GDP. Expansionary monetary policy usually diminishes the value of the currency relative to other currencies. The opposite of expansionary monetary policy is contractionary monetary policy, which maintains short-term interest rates higher than usual or which slows the rate of growth in the money supply or even shrinks it. This slows short-term economic growth and lessens inflation. Contractionary monetary policy can lead to increased unemployment and depressed borrowing and spending by consumers and businesses, which can eventually result in an economic recession if implemented too vigorously. In reality as the global economy has become more integrated, the external effects of changes in the economic conditions and monetary policies of major countries have become greater than ever before. These effects are greater particularly in small open economies. In the years since the global financial crisis, major economies have been implementing accommodative macroeconomic policy to cope with their economic sluggishness. However, most of them have failed to emerge from their low growth trends due to structural factors.

Today, monetary decisions take into account of a wider range of factors, such as very short-term, short-term, long-term interest rates, velocity of money in circulation both in domestic and international, exchange rates, bonds and equities and other financial derivatives like swaps, future contacts etc.

5.1 Objectives

By the time you complete the study of this unit, you should be able to do the followings:

- To explain the issues of policy instruments
- To analyse Tinbergen concepts on targets and instruments
- To explain internal and external balance and swan diagram
- To comprehend the flexible exchange rate and its problems in maintenance of monetary and fiscal policies
- To discuss the problems in maintenance of current and capital accounts balance

5.2 Issues of policy instruments

Macroeconomic policy instruments are macroeconomic quantities that can be directly controlled by an economic policy maker. Instruments can be divided into two subsets: (i) monetary policy instruments and (ii) fiscal policy instruments. Monetary policy is conducted by the central bank of a country or of a supranational region. Fiscal policy is conducted by the executive and legislative branches of the government and deals with managing a nation's budget.

Monetary policy instruments are used for managing short-term rates, and changing reserve requirements for commercial banks. Monetary policy can be either expansive for the economy (short-term rates low relative to the inflation rate) or restrictive for the economy (short-term rates high relative to the inflation rate). Historically, the major objective of monetary policy had been to use these policy instruments to manage or curb domestic inflation.

Fiscal policy consists in managing the national budget and its financing so as to influence economic activity. This entails the expansion or contraction of government expenditures related to specific government programs such as building roads or infrastructure, military expenditures and social welfare programmes. It also includes the raising of taxes to finance government expenditures and the raising of debt to bridge the gap between revenues and expenditures related to the implementation of government programmes. Raising taxes and reducing the budget deficit is deemed to be a restrictive fiscal policy as it would reduce aggregate demand and slow down gross domestic product growth. Lowering taxes and increasing the budget deficit is considered an expansionary fiscal policy that would increase aggregate demand and stimulate the economy. Jan Tinbergen classified some macroeconomic variables as targets and some others as instruments.

Check your Progress 1

1. Mark True (T) or False (F):
   (i) Macroeconomic policy instruments are macroeconomic quantities that can be directly controlled by an economic policy maker.
   (ii) Monetary policy instruments are used for managing long-term rates.
   (iii) Instruments can be divided into two subsets: (i) monetary policy instruments and (ii) fiscal policy instruments.
   (iv) Fiscal policy is carried out by the monetary authority of a country and deals with managing a nation's budget.
   (v) The major objective of monetary policy had been to use these policy instruments to manage or curb domestic inflation.
   (vi) In the developing countries, all the measures of terms of trade are practiced for gains from trade.
2. Explain the importance of fiscal policy in about five sentences.
   ……
   ……..

5.2.1 Tinbergen on Targets and Instruments

Tinbergen's contributions to econometrics are the introductions of the concepts of "targets" and "instruments." The "targets" are defined in terms of the policy maker's goals or objectives. For example, a given level of aggregate output might be a target. With the help of the model, this in turn would show what values of the "instruments" would lead to the achievement of that goal. His notion of 'targets' and 'instruments' is basic to the conceptual framework that economists have used to bring economic analysis to bear on practical issues of how central banks can and/or should conduct monetary policy. The desire to provide normative guidance to public policy is a fundamental theme that has motivated much of monetary economics, almost since the inception of the subject as a recognizable field of economic inquiry. The connection is readily understandable. Because "money" in any modern economy is a commodity either provided by government or, at the least, provided by the private sector under authority and conditions set by government, the link connecting monetary influences on economic activity to specific actions by identifiable public institutions is immediate and direct. Investigating how those public institutions' actions which

affect the principal dimensions of macroeconomic activity has traditionally constituted the heart of what monetary economics is all about. As long as some macroeconomic outcomes are clearly preferable to others that is, stable prices rather than inflation, for example, or prosperity rather than widespread unemployment such as, the question of what government actions are more likely to lead to more desirable outcomes is not just natural but inevitable. Targets and instruments of monetary policy have evolved in response to the desire to bring monetary economics even closer to the actual operations of the central bank.

Following the vocabulary made familiar in a broader policy context by Jan Tinbergen and others at the outset of the post World War II period, research on the subject has proceeded from the distinction between prices or quantities that a monetary authority can uniquely determine, directly through its own operations (the "instruments" of monetary policy), and those aspects of economic activity that it intends for its operations, along with other elements of public policy as well as independent forces, to affect (the "targets"). In addition, because of the role often advocated in the specific context of monetary policy for economic variables that neither fall under the central bank's direct control nor possess social significant on their own - the leading example, of course, is the stock of money or its rate of growth - the literature has also emphasized yet a third category of prices or quantities now commonly understood as "intermediate targets."

General Statement of Problem:

It is easiest to understand the use of any given intermediate target variable for monetary policy as a two-stage procedure. In the first stage, the central bank determines the value of the intermediate target which would be consistent with the desired ultimate policy objective under a variety of ex-ante assumptions, for example zero values for all relevant disturbances. At the second stage, the central bank proceeds, in some ex-post assumptions, to treat achieving this value of the intermediate target if doing so were the objective governing policy. In practice many central banks have implemented intermediate target strategies at least approximately according to this two-stage manner. The distinction between the "ex-ante" assumptions employed in the first stage of this process and whatever makes the second stage "ex-post" is clearly crucial. Since the passage of time per-se is not a significant issue here, the literature analyzing the intermediate target problem has largely focused on the availability of new information as time passes. The key role of the intermediate target

variable, then, is to provide a rule for processing and acting on this new information. The most obvious context in which this kind of segmented information flow arises is an inherently dynamic system in which the relevant economic behavior exhibits leads and lags distributed through time. For example, if people demand money for transactions purposes, and tend on average to accumulate money in advance of actual spending, then in general the observed value of the money stock at any time conveys information about the future strength of aggregate demand. Similarly, in models in which some individuals' or businesses' ability to spend depends in part on their ability to borrow, and loan transactions tend to precede actual spending, the observed volume of credit conveys information about the future state of aggregate demand. In either case, such information is at least potentially useful whenever monetary policy actions affect economic behavior with a lag. An endogenous variable like the money stock can also provide such useful information, even in the absence of behavioral economic lags, if there are lags in the availability of relevant data. For example, in a context in which disturbances to economic behavior are serially correlated, observations of the recent values of key endogenous variables convey information that is potentially useful for anticipating future outcomes. If observations of endogenous financial variables like money (or credit, or interest rates) are available on a more timely basis than observations of variables like income and prices - as is the case in most economies - then the information given by those financial variables in general has a role to play in setting the optimal value of the policy instrument. Equivalently, if observations of financial variables are available continuously throughout the "period" of analysis but observations of variables like income and prices are not, and if it is possible for the central bank to adjust the value of its policy instrument as time passes within the period, then again these available observations in general have a role to play in the policy making process.

Instrument problems:

A central bank operating in a modern fractional reserve banking system typically has several different tools at its disposal for affecting private economic and financial behavior. In most economies these include the ability to determine what reserves banks and other depository institutions must hold in relation to their deposits, to vary the supply of such reserves by buying and selling securities (usually government securities) for the central bank's own account, to lend reserves directly to banks, to set minimum conditions for

particular kinds of credit transactions (for example, stock market margin requirements), and to regulate a variety of aspects of ordinary banking and other financial activities.

Among these several devices, the buying and selling of securities usually called "open market operations" is typically the primary focus of the monetary policy function. The "instrument problem" of monetary policy arises because of the need to specify how the central bank will conduct its open market operations. In particular, the instrument problem is the choice of a variable to be set directly by the central bank via buying and selling securities, and hence the value of which is to serve as the principal guide in carrying out that buying and selling function. Because open market operations are in essence a trading activity, the instrument variable used may be either a quantity or a price. The central bank may buy or sell a specified amount of securities, thereby inelastically providing or withdrawing that amount of bank reserves. Alternatively, it may buy or sell whatever amount of securities other traders in the market want to transact at a specified price, thereby elastically letting "the market" determine the quantity of reserves to be held at that price. Beyond this more fundamental choice, of course, it is also necessary for the central bank to decide exactly which quantity variable it is setting (for example, total reserves, non-borrowed reserves, the monetary base, reserves or the monetary base adjusted for changes in reserve requirements, and so on), or, alternatively, just which price variable (for example, the interest rate on overnight interbank reserve borrowings, the treasury bill rate, and so forth).

Whether to key open market operations to a quantity or a price is an issue of first-order importance in normative monetary economics, and has been so for a long time. The optimal choice between quantity and price in this context depends both on familiar parameters describing economic behavior and on the relative magnitudes of the different sources of uncertainty affecting the economy. In the context of the instrument problem - in contrast to the intermediate target problem, the choice between exogenously setting a monetary quantity and exogenously setting an interest rate to the relative magnitudes of the unpredictable elements of the nonbank public's behavior in the market for goods and services and the market for financial assets, respectively.

The Intermediate Target Problem:

A potentially important problem inherent in the entire mode of analysis is that what most people mean by "money" in discussions of monetary policy is not a quantity set directly by the central bank. Under the kind of fractional reserve banking system in use in almost all modern economies in the western world, most of the money used by the public, either as a means of payment or as a liquid store of value represents the liabilities of private depository institutions. Although the central bank can influence the money-creating activities of these institutions, that influence is not the same as its being able to set the money stock exogenously, as if money were a genuine policy instrument. Instead, the quantity variable which the central bank can set directly, if it chooses, is at best some measure of its own liabilities for example, bank reserves or the monetary base (reserves plus currency). One solution to this problem, of course, is simply to define "money' so that it is potentially exogenous that is, to define money as some measure of the central bank's direct liabilities regardless of common usage. In that case "money demand" functions represent the derived demand for central bank liabilities, based on the underlying fractional reserve system (and, if the measure used is the monetary base, on the public's demand for currency), and the analysis can proceed just as before. Nevertheless, this confounding of the respective portfolio behavior of the banking system and the non-bank public runs counter to the rich and long-standing tradition of distinct analysis of money demand behavior (meaning that of the nonbank public) and money supply behavior (meaning that of the banking system). In addition, keeping the two analytically separate in this context as well is more consistent with the principle of distinguishing among the respective implications of disturbances to the economy arising from different sources.

A simple example:

A very simple three-equation model will illustrate many of the foregoing points. Equation (1), below, is the accounting definition. Net National Product (NNP) equals consumption plus net private domestic investment plus government purchases plus exports minus imports. Equation (2), below, is the consumer behavior equation mentioned earlier, specifying that consumption is a linear function of disposable income and lagged consumption plus a random disturbance. A third equation is needed to relate disposable income to NNP. Assume an economy in which (a) the whole of government revenue is raised

by an income tax whose yield is a linear function of NNP; (b) there are no transfer payments; and (c) all business income is paid out to individuals, so that disposable income is also a linear function of NNP which is expressed by Equation (3). The three structural equations of this model are as follows:

$$Y = C + I + G, \qquad \text{……..(1)}$$

$$C = a + \beta D + \gamma C_{t-1} + u \qquad \text{……..(2)}$$

$$D = Y(1 - m) - H \qquad \text{……..(3)}$$

This model specifies that there are three endogenous variables (Y = NNP, C = consumption and D = disposable income); and that there are four exogenous variables (I = net private domestic investment, G = government purchases plus exports less imports, H = the fixed part of tax revenues independent of NNP, and m = the marginal tax rate on NNP). Lagged consumption is denoted by C_{t-i} and α, β, and γ are three unknown parameters; and u is a random disturbance with zero mean. All these quantities are expressed in billions of real (i.e., deflated) dollars per year, except for m, β, and γ, which are pure numbers between 0 and 1. The reduced form of this model is obtained by solving the three structural equations for Y, D and C.

Note that the model and its reduced form are linear in endogenous variables, but not in all variables because of the term containing Y and m in equation (3). If in the reduced form one substitutes estimated values for the three structural parameters, zero for the disturbance u, and numerical values for the five predetermined variables for a certain year, one obtains estimates of the expected values of the three jointly dependent variables Y, D, and C for that year, conditional on the chosen values of the predetermined variables. Therefore, the future forecasting of an economy can be done by using the targets and instruments of Jan Tinbergen.
Problems of Volatility and Instability:

Another set of issues that arises when the central bank uses some measure of money as an intermediate target, especially in the context of reserves as the exogenous policy instrument, is the prospect of excessive volatility of interest rates. In simple models like those analyzed above, there is no apparent reason why interest rate volatility should be a policy concern. In fact, however, most central banks have historically sought to minimize interest rate volatility, and it is not difficult to posit richer models of income determination in which interest rate volatility can matter. In a one-period context, interest rate volatility simply means the variance of the interest rate or, more generally, of the entire constellation of

interest rates - around the corresponding expected value(s). Here, the connection to the choice of policy instrument is clear enough. Under an interest rate instrument, whatever interest rate the central bank sets exogenously has zero variance in this sense. Under a reserves instrument, the variance is non-zero.

In a dynamic context, the question is both richer and more subtle. Here, the issue is not just the within-period variance of any interest rate around its expected value but the movements of interest rates from one time period to the next, including whatever deterministic component renders each period's expected value not the same as the prior period's realization. Although the best way in distinguishing these two senses of interest rate volatility, central banks have typically exhibited concern for both. However, interest rate volatility is likely to be greater under an interest rate instrument or some other policy strategy is not clear a priori. Using a reserves instrument, or using money as an intermediate target, exposes each period's interest rate to a variety of shocks. By contrast, if use of an interest rate instrument leads to increased variation in price inflation, and if realized inflation affects the central bank's subsequent setting of the interest rate as is the case, for example if the inflation rate exhibits inertia and the interest rate that matters for economic activity is the real interest rate, then the period-to-period variance of (nominal) interest rates may be greater under an interest rate instrument. More generally, any monetary policy system that results in a volatile inflation rate is likely to increase the period-to-period volatility of nominal interest rates. Finally, in a dynamic context the extent of period-to-period interest rate volatility also depends on the objective specifying how rapidly the central bank seeks to restore income (or prices, or money) to the corresponding targeted path once a departure from that path has occurred.

Check your Progress 2

1. Mark True (T) or False (F):
    (i) The "targets" are defined in terms of the policy maker's goals or objectives.
    (ii) The "instrument problem" of monetary policy arises because of the need to specify how the central bank will conduct its open market operations.
    (iii) The open market operations are in essence a trading activity.

(iv) The exogenous policy instrument is the prospect of necessary stability of interest rates.

(v) Interest rate volatility means the variance of the interest rate or the entire constellation of interest rates

2. Explain the three structural equations of this model in about five sentences. ……
……..

5.2.2 Internal and external balance

The choice of policy instruments for achieving internal and external balance are direct controls, expenditure changing and switching policies by a nation. Direct controls refer to government restriction such as quotas, tariffs, production and distribution controls and price controls. Expenditure changing policies may be both monetary and fiscal policies. These policies seek to achieve internal and external balance by altering the aggregate level of demand for goods and services, both in domestic and foreign goods, by increasing or reducing the expenditure in the country. Similarly, expenditure switching policies seek at changing expenditure between domestic and foreign goods through devaluation of currency. Therefore, to understand the effects of monetary and fiscal policies on internal and external balances under fixed and floating exchange rate system, it is important to understand the challenges. It is a fact that under the fixed exchange rate system, a nation faces two challenges of maintaining both internal and external balance. However, a major problem is that while restructuring monetary and fiscal policies of a nation for internal balance, it may widen external imbalance and vice versa. The effects of monetary and fiscal policies on the balance of payments are quite similar except for their effects on interest rates. An expansionary fiscal policy pushes up interest rate because increase in expenditure and income increases the demand for money, where the supply of money remains constant, this will lead to increase in interest rate. Similarly, an expansionary monetary policy brings down interest rate because of increase in money supply.

5.2.3 Swan diagram

Swan diagram analyses the economic effects of two kinds of policies (i) those that affect the overall level of domestic expenditure such as fiscal deficit; and (ii) those that affect

the relative demand for domestic and foreign goods. The Swan diagram was developed by Trever Swan, an Australian economist who analysed the expenditure-changing and expenditure-switching policies for adjusting the internal demand and to affect a balance in external account and its impact on the balance of payments and the level of employment of a nation. The two main assumptions of the model are (i) There are no restrictions, tariff or non-tariff, upon trade and (ii) There is an absence of capital movements. The simultaneous existence of internal and external disequilibria can be shown by Swan as follows:

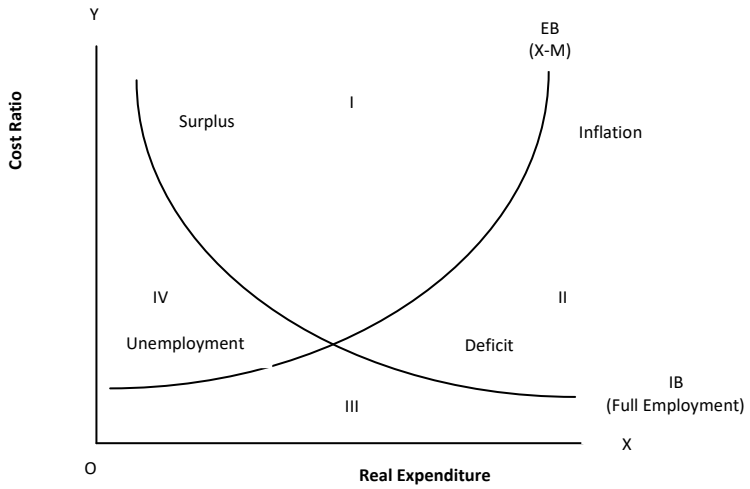


Fig. 10.1

In the fig. 10.1, the OX axis measures the real expenditure and OY the cost ratio which is the ratio of international prices to the domestic prices. The IB curve stands for internal balance which slopes downward from left to right. It indicates that a lower the cost ratio which limits export and import substituting production, the higher must be the real expenditure to maintain full employment. Positions to the right and above the IB curve represent inflation with domestic real expenditure excessively high relatively to export and import substitution production, and below and to the left of IB curve indicates the unemployment. The EB curve, on the other hand represents the external balance which is the difference between exports and imports. It slopes upwards from left to right. Below and to the right of EB curve, there is payment deficit whereas above and to the left indicates payment surplus. In other words, the fig.1 presents four quadrants such as quadrant I shows the inflation and balance of payments surplus, quadrant II- the inflation and balance of payment deficit, quadrant III- the unemployment and balance of payments deficit and quadrant IV – the unemployment and balance of payments surplus. The complete equilibrium occurs only at one point where the two curves intersect each other. In quadrant II and IV where the internal

inflation and external deficit and unemployment and external surplus respectively co-exist, the movement towards equilibrium can be achieved through expenditure- changing policies. In quadrant II, a contraction and in quadrant IV, an expansion in real expenditure will help restore the balance. In quadrant I and III, there is a coincidence of surplus and inflation and deficit and unemployment respectively. The alteration in the cost ratio through expenditure-switching policies like exchange, depreciation and appreciation are likely to bring the system in a state of balance. The expenditure-changing policies can be split up into monetary and fiscal policies. The fiscal policies which can be represented by the national budget whether, deficit or surplus can have its effect upon both internal and external balances. The monetary policy can influence the balances in two ways. Firstly, the variations in interest rates affect business investment which through multiplier, also affect the consumption spending. Secondly, the interest rate variations cause movements in short term capital and can influence the balance of payments situations in the country.

The use of monetary and fiscal policies for the achievement of internal and external balances can be shown graphically as follows:

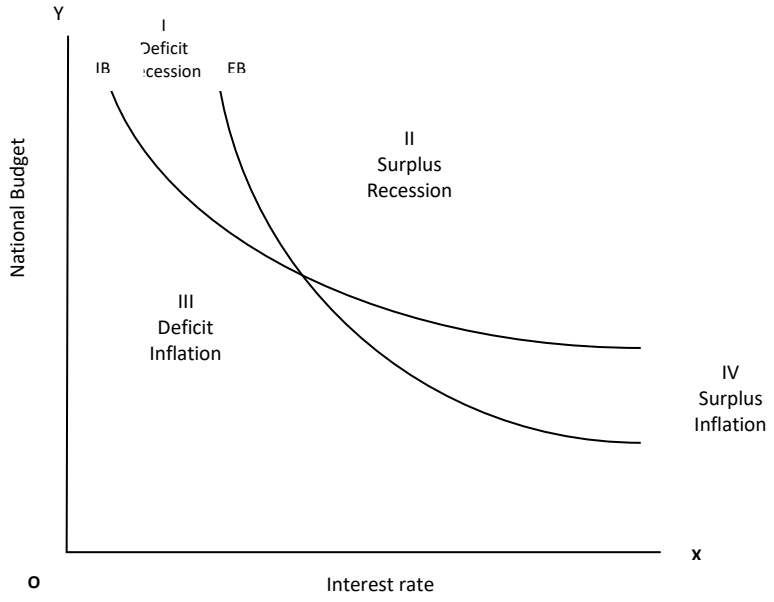


Fig. 10.2

The two curves IB and EB in Fig. 10.2 represent the internal and external balances and OX axis indicates the interest rate which is a monetary policy instrument and OY axis represent national budget – the instrument for fiscal policy instrument. The steeper slope of the external balance curve indicates that it is more responsive to the monetary policy, while the internal balance curve is more responsive to fiscal policy. These curves have been drawn on the basis of a given cost ratio of domestic and international prices. A change in the cost ratio will cause a displacement of both the curves. An increase in the cost ratio would shift the external balance curve to the right. It will mean that a higher interest rate, given the budgetary surplus or deficit, will be required for the achievement of balance. Such a change in the cost ratio would shift the internal balance curve downwards and to the left. It shows that a reduction in spending on exports and import-substitutes requires a higher budgetary deficit, at a given rate of interest, in order to maintain full employment.

Check your Progress 3

1. Mark True (T) or False (F):
   (i) The choice of policy instruments for achieving internal and external balance are direct controls. (T)
   (ii) A major problem is that while restructuring monetary and fiscal policies of a nation for internal balance, it may widen external imbalance and vice versa. (T)
   (iii) The open market operations are in essence a trading activity. (T)
   (iv) The effects of monetary and fiscal policies on the balance of payments are quite similar except for their effects on national income (F)
   (v) An expansionary fiscal policy brings down interest rate because of increase in money supply. (F)
2. Explain the concept of internal and external policy in monetary policy in about five sentences.
   ……
   ……..

5.2.4 Flexible exchange rate and problems in maintenance of monetary and fiscal policies

A flexible exchange rate system refers to the monetary system that allows the exchange rate to be determined by supply and demand of goods and services between a domestic economy and foreign countries. The flexible exchange rate and problems in maintenance of monetary and fiscal policies can be discussed with the help of expansionary monetary policy and expansionary fiscal policy under two heads, (i) Flexible exchange rate with perfect capital mobility and (ii) Flexible exchange rate with relative capital mobility.

The expansionary monetary policy has an effect of lowering the interest rate thereby increasing the capital outflow and thus, bringing deficit in balance of payments of a country. How this deficit is removed is demonstrated in Fig. 10.3

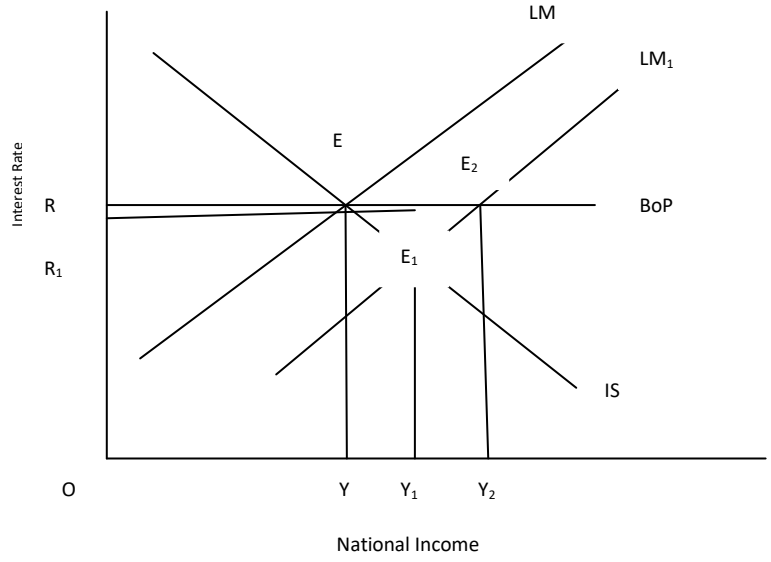


Fig. 10.3

The LM and IS curves are intersected at point E (OY = OR) from where, an expansionary monetary policy shifts the LM curve to the right to LM_1 curve, given the IS curve. The M_1 intersects IS curve at E_1 which lowers the interest rate to OR_1 and raises income to OY_1. These lead to capital outflows and the consequent deficit in the balance of payments and depreciation of the exchange rate. Depreciation increases the demand for domestic goods in the foreign countries thereby, increasing output and income. This moves the economy upward along the LM_1 curve till it reaches point E_2 where income rises to OY_2 and the interest rate rises to the old level OR. Equilibrium in the balance of payments is

restored at E_2 where the increase in imports through the rise in income is offset by surplus in trade balance due to depreciation.

Similarly, the expansionary fiscal policy has an effect of raising the national income thereby increasing the capital inflow and thus, bringing surplus in balance of payments of a country. How this surplus is disinterested is shown in Fig. 10.4.

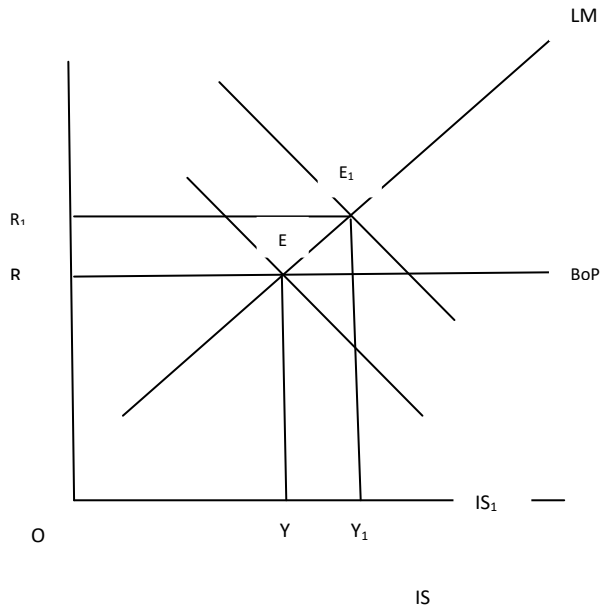


Fig.10.4

In the expansionary fiscal policy, LM curve is given and IS curve shifts to IS_1 curve in Fig.10.4. and equilibrium E also shifts to a new equilibrium E_1 where, IS_1 curve intersects LM curve with OR_1 interest rate and OY_1 level of national income. Since E_1 is above the BoP line, there is surplus in the balance of payments of the country. Surplus in the balance of payments leads to appreciation of exchange rate which in turn reduces demand for domestic goods and services. This process of appreciation will continue so long as R_1 is above R (interest rate) and compensate the expansionary effect of fiscal policy till IS_1 curve shifts back to IS curve and the equilibrium is re-established at E where interest rate and national income are back to their original levels of OR and OY. Therefore, expansionary fiscal policy has no effect on income and employment under perfect capital movement.

The monetary and fiscal policy under flexible exchange rate with relative capital mobility also shows that expansionary monetary policy is effective and expansionary fiscal policy ineffective. It can be shown in the following Fig.10.5.

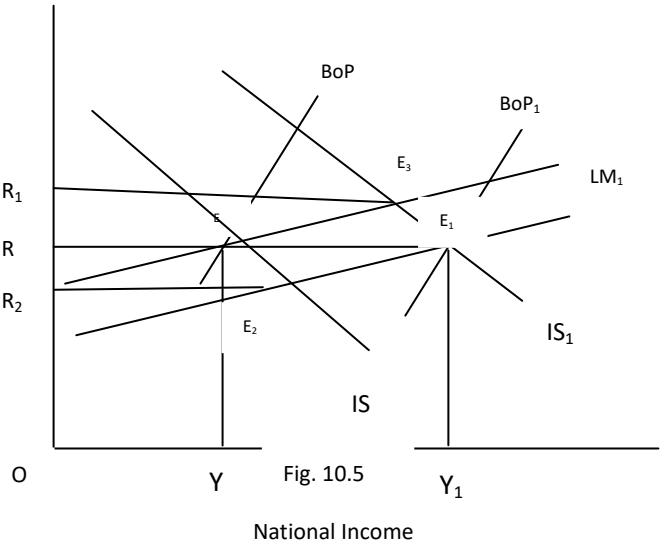


Fig. 10.5

Now, if the monetary authority follows the expansionary monetary policy, LM curve shifts to the right LM_1 curve and intersects the IS curve at E_2 and it leads to short run BoP deficit because E_2 is below and to the right of BoP but with the fall in interest rate from OR to OR_1, there is capital outflow from the country. This situation leads to increase in the demand for foreign currency and exports but depreciates its own exchange rate and imports. This causes the IS curve to shift to the right to IS_1 and hence, balance of payments improves and shifts to the right from BoP to BoP_1 and a new equilibrium E_1 is established where, IS_1=LM_1=BoP_1 curves and both internal and external balance are attained at a higher OY_1 income level than OY. Therefore, expansionary monetary policy is effective under flexible exchange rate with relative capital mobility. If expansionary fiscal policy is applied, there is balance of payment deficit under flexible exchange rates. For example, if there is increase in government expenditure, the IS curve will shift to the right to IS_1 which intersects the LM curve at E_3. This raises the interest rate from OR to OR_3 and capital inflow vis-à-vis currency appreciation in the economy takes place. This in turn raises imports and reduces exports and leads to currency depreciation. Hence, IS_1 curve is shifted back to the original IS curve and restored to the equilibrium point E. Thus, the expansionary fiscal policy is unproductive and inefficient under flexible exchange rate with relative capital mobility. Generally, an expansionary monetary policy combined with a contractionary fiscal policy of the country

under flexible exchange rate with relative capital mobility yields in attaining internal and external balance of a country.

5.2.5 Maintenance of current and capital account balance

The current and capital account balance are two components of a country's balance of payments. The current account deals with the receipt and payment in cash as well as non-capital items, while the capital account reflects sources and utilization of capital. The sum of the current account and capital account reflected in the balance of payments will always be zero. Any surplus or deficit in the current account is matched and cancelled out by an equal surplus or deficit in the capital account. Therefore, the problems in maintenance of current and capital accounts balance under balance of payments can be discussed under two heads; such as (i) devaluation and (ii) direct controls which are also known as expenditure switching policies. The expenditure switching policies aim at maintaining external balance of a country.

(i) Devaluation (expansionary monetary policy): It means a reduction in the external value of a currency in terms of other currencies while the internal purchasing power of the country remains constant. When the country, with balance of payment deficit devalues its currency, the domestic price of its imports becomes costlier and the foreign price of its exported goods becomes cheaper. In other words, the domestic price of its imports increases and the foreign price of its exported goods falls. This encourages exports and discourages imports. This causes expenditures to be switched from foreign goods to domestic goods and thereby increase in the production of goods so as to meet both foreign demand for goods and domestic demand for goods since imports of foreign goods are costlier. Thus, the rise in exports and fall in imports in current account corrected the balance of payments deficit and,

(ii) Direct controls (expansionary fiscal policy): It is the policy of government to restrict imports of goods or exchange controls in order to correct balance of payment deficit. Such a policy increases domestic output for exports and encourages production of import substitute goods. To induce producers to switch their expenditures to exportable goods, the government may provide them export subsidies and simultaneously by increasing import duties on the basis of its necessity of the goods. In these ways, imports are reduced in order to correct an

adverse balance of payments position of a country. In the exchange controls, the government restricts imports and regulates foreign exchange. Thus, direct controls help in correcting an adverse balance of payments.

Check your Progress 4

1. Mark True (T) or False (F):
   (i) A flexible exchange rate system refers to the monetary system that allows the exchange rate to be determined by supply and demand of goods and services between a domestic economy and foreign countries. (T)
   (ii) The expansionary monetary policy has an effect of lowering the interest rate thereby increasing the capital outflow and thus, bring deficit in balance of payments of a country. (T)
   (iii) The monetary and fiscal policy under flexible exchange rate with relative capital mobility shows that expansionary monetary policy is ineffective and expansionary fiscal policy effective. (F)
   (iv) Devaluation refers to a reduction in the external value of a currency in terms of other currencies while the internal purchasing power of the country remains constant. (T)
   (v) Direct controls are the policy of government to restrict export of goods or exchange controls in order to correct balance of payment deficit. (F)
2. Explain the problems in maintenance of current and capital accounts balance under balance of payments in about five sentences.

……
……

5.3 Let Us Sum Up

The problem of policy in an open economy lies in the issues of monetary and fiscal policy instruments. Monetary policy instruments are used for managing short-term rates, and changing reserve requirements for commercial banks while fiscal policy instruments consist in managing the national budget and it's financing so as to influence economic activity. Jan

Tinbergen classified some macroeconomic variables as targets and some others as instruments to bring economic analysis on practical issues of how central banks can and/or should conduct monetary policy. The desire to provide normative guidance to public policy is a fundamental theme that has motivated much of monetary economics, almost since the inception of the subject as a recognizable field of economic inquiry.

5.4 Key Terms

Expansionary monetary policy: It is a policy used by a monetary authority to stimulate the economy by expanding money supply faster than usual or lowering short term interest rates.

Contractionary monetary policy: It is also a policy used by a monetary authority to reduce government spending or reduction in the rate of monetary expansion.

Expansionary fiscal policy: It is a policy used by a government to decrease taxes, or increase government expenditures or both to fight recessionary pressures.

Contractionary fiscal policy: It is a policy used by a government to increase taxes or decrease government expenditures or both to fight inflationary pressures.

Monetary policy instruments: Instruments like the discount rate, reserve requirements, liquidity requirements and open market operations are monetary policy instruments used by a monetary authority (central bank).

Fiscal policy instruments: instruments like taxes, expenditure, public debt and budget are fiscal policy instruments used by a government.

Current account: The current account deals with the receipt and payment in cash as well as non-capital items in balance of payments accounting.

Capital account: The capital account reflects sources and utilization of capital balance of payments accounting.

5.5 Answers to Check Your Progress

Check your Progress 1

1. Mark True (T) or False (F):

   (i) (T), (ii) F, (iii) T, (iv) T (v) F

2. Explain the importance of fiscal policy in about five sentences.

Fiscal policy consists in managing the national budget and its financing so as to influence economic activity. This entails the expansion or contraction of government expenditures related to specific government programs such as building roads or infrastructure, military expenditures and social welfare programmes. It also includes the raising of taxes to finance government expenditures and the raising of debt to bridge the gap between revenues and expenditures related to the implementation of government programmes. Raising taxes and reducing the budget deficit is deemed to be a restrictive fiscal policy as it would reduce aggregate demand and slow down gross domestic product growth. Lowering taxes and increasing the budget deficit is considered an expansionary fiscal policy that would increase aggregate demand and stimulate the economy.

Check your Progress 2

1. Mark True (T) or False (F):

   (i) (T), (ii) T, (iii) T, (iv) F, (v) T

2. Explain the three structural equations of this model in about five sentences.

The three structural equations of this targets and instruments can be explained which are as follows:

$$Y = C + I + G, \qquad \text{……..(1)}$$

$$C = a + \beta D + \gamma C_{t-1} + u \qquad \text{……..(2)}$$

$$D = Y(1 - m) - H \qquad \text{……..(3)}$$

This model specifies that there are three endogenous variables (Y = NNP, C = consumption and D = disposable income); and that there are four exogenous variables (I = net private domestic investment, G = government purchases plus exports less imports, H = the fixed part of tax revenues independent of NNP, and m = the marginal tax rate on NNP). Lagged consumption is denoted by C_{t-i} and α, β, and γ are three unknown parameters; and u is a random disturbance with zero mean. All these quantities are expressed in billions of real (i.e., deflated)

dollars per year, except for m, β, and γ, which are pure numbers between 0 and 1. The reduced form of this model is obtained by solving the three structural equations for Y, D and C.

Check your Progress 3

1. Mark True (T) or False (F):

   (i) (T), (ii) T, (iii) T (iv) F, (v) (F)

2. Explain the concept of internal and external policy in monetary policy in about five sentences.

The choice of policy instruments for achieving internal and external balance are direct controls, expenditure changing and switching policies by a nation. Direct controls refer to government restriction such as quotas, tariffs, production and distribution controls and price controls. Expenditure changing policies may be both monetary and fiscal policies. These policies seek to achieve internal and external balance by altering the aggregate level of demand for goods and services, both in domestic and foreign goods, by increasing or reducing the expenditure in the country. Similarly, expenditure switching policies seek at changing expenditure between domestic and foreign goods through devaluation of currency. Therefore, to understand the effects of monetary and fiscal policies on internal and external balances under fixed and floating exchange rate system, it is important to understand the challenges.

Check your Progress 4

1. Mark True (T) or False (F):

   (i) (T), (ii) T, (iii) F, (iv) T, (v) F

2. Explain the problems in maintenance of current and capital accounts balance under balance of payments in about five sentences.

The problems in maintenance of current and capital accounts balance under balance of payments can be discussed under two heads; such as devaluation and direct controls which are also known as expenditure switching policies. Devaluation means a reduction in the external value of a currency in terms of other currencies while the internal purchasing power of the country remains constant. This encourages exports and discourages imports. Thus, the rise in exports and fall in imports in current account corrected the balance of payments deficit and, direct controls is the policy of government to restrict imports of goods

or exchange controls in order to correct balance of payment deficit. Such a policy increases domestic output for exports and encourages production of import substitute goods.

5.6 Questions and Answers

10.6.1 Short-Answer Questions

1. What is instrument in monetary policy?
2. What do you mean by fiscal policy?
3. What is internal policy in monetary policy?
4. What is external policy in monetary policy?
5. What do you mean by 'Targets' of Tinbergen?
6. What do you mean by 'Instruments' of Tinbergen?
7. What is the choice of policy instruments for achieving internal and external balance?
8. What are the problems in maintenance of current and capital accounts balance under balance of payments?
9. How Swan diagram analyse the economic effect on policies?
10. What are the main assumptions of Trever Swan model?

5 .6.2 Long-Answer Questions

1. Discuss the achievements of internal and external balances through monetary and fiscal policies in Swan diagram.
2. Explain the flexible exchange rate and problems in maintenance of monetary and fiscal policies of an economy.
3. Examine the role of expenditure reducing policies in correcting a deficit in balance of payments.
4. Explain internal and external balance in terms of IS-LM-BoP technique.
5. Distinguish between expenditure switching and expenditure switching policies of balance of payments adjustment.

5.7 Suggested Readings

Allen, R. G. D (1967): Macro Economic Theory, St. Martin's Press, New York

Meade, J. E (1952): A Geometry of International Trade, George Allen and Unwin, London.

Meier, G. M (1964): Leading Issues in Development Economics, Oxford University Press, New York.

Salvatore, D (2007): International Economics, Wiley India (P) Ltd, New Delhi.

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