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Rajiv Gandhi University

BAECO 202
INTERNATIONAL TRADE

BA (ECONOMICS)
4th SEMESTER

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INTERNATIONAL TRADE

BA [Economics]

Fourth Semester

BAECO-202

RAJIV GANDHI UNIVERSITY

Arunachal Pradesh, INDIA - 791 112

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Vikas revised edition, 2021

About the University

Rajiv Gandhi University (formerly Arunachal University) is a premier institution for higher education in the state of Arunachal Pradesh and has completed twenty-five years of its existence. Late Smt. Indira Gandhi, the then Prime Minister of India, laid the foundation stone of the university on 4th February, 1984 at Rono Hills, where the present campus is located.

Ever since its inception, the university has been trying to achieve excellence and fulfill the objectives as envisaged in the University Act. The university received academic recognition under Section 2(f) from the University Grants Commission on 28th March, 1985 and started functioning from 1st April, 1985. It got financial recognition under section 12-B of the UGC on 25th March, 1994. Since then Rajiv Gandhi University, (then Arunachal University) has carved a niche for itself in the educational scenario of the country following its selection as a University with potential for excellence by a high-level expert committee of the University Grants Commission from among universities in India.

The University was converted into a Central University with effect from 9th April, 2007 as per notification of the Ministry of Human Resource Development, Government of India.

The University is located atop Rono Hills on a picturesque tableland of 302 acres overlooking the river Dikrong. It is 6.5 km from the National Highway 52-A and 25 km from Itanagar, the State capital. The campus is linked with the National Highway by the Dikrong bridge.

The teaching and research programmes of the University are designed with a view to play a positive role in the socio-economic and cultural development of the State. The University offers Undergraduate, Post-graduate, M.Phil and Ph.D. programmes. The Department of Education also offers the B.Ed. programme.

There are fifteen colleges affiliated to the University. The University has been extending educational facilities to students from the neighbouring states, particularly Assam. The strength of students in different departments of the University and in affiliated colleges has been steadily increasing.

The faculty members have been actively engaged in research activities with financial support from UGC and other funding agencies. Since inception, a number of proposals on research projects have been sanctioned by various funding agencies to the University. Various departments have organized numerous seminars, workshops and conferences. Many faculty members have participated in national and international conferences and seminars held within the country and abroad. Eminent scholars and distinguished personalities have visited the University and delivered lectures on various disciplines.

The academic year 2000-2001 was a year of consolidation for the University. The switch over from the annual to the semester system took off smoothly and the performance of the students registered a marked improvement. Various syllabi designed by Boards of Post-graduate Studies (BPGS) have been implemented. VSAT facility installed by the ERNET India, New Delhi under the UGC-Infonet program, provides Internet access.

In spite of infrastructural constraints, the University has been maintaining its academic excellence. The University has strictly adhered to the academic calendar, conducted the examinations and declared the results on time. The students from the University have found placements not only in State and Central Government Services, but also in various institutions, industries and organizations. Many students have emerged successful in the National Eligibility Test (NET).

Since inception, the University has made significant progress in teaching, research, innovations in curriculum development and developing infrastructure.

SYLLABI-BOOK MAPPING TABLE

Money & Banking

Syllabi	Mapping in Book
Unit I: Inflation Causes of inflation, demand pull, cost push; inflationary gap; effects of inflation on production and distribution; measures of controlling of inflation.	**Unit I: Inflation**
Unit II: International Trade Smith's and Ricardo's theories of international trade; terms of trade; Balance of trade and balance of payments; disequilibrium in the balance of payments and corrective measures	**Unit II: International Trade**
Unit III: Rate of Exchange Floating exchange rate and problems of balance of payments; foreign exchange reserve and its determinants, functions of IMF.	**Unit III: Rate of Exchange**

CONTENTS

INTRODUCTION

NOTES

Money is any object or record that is generally accepted as payment for goods and services and repayment of debts in a given country or socio-economic context. The main functions of money are distinguished as: a medium of exchange; a unit of account; a store of value; and, occasionally in the past, a standard of deferred payment. The money supply of a country consists of currency (banknotes and coins) and bank money (the balance held in checking accounts and savings accounts). Bank money usually forms by far the largest part of the money supply. One cannot begin to understand how money is created and how it works without a good understanding of the banking system, and the special role of the central bank. Banking in India originated in the last decades of the 18th century. The first banks were The General Bank of India, which started in 1786, and Bank of Hindustan, which started in 1790; both are now defunct. The Government of India issued an ordinance and nationalized the fourteen largest commercial banks with effect from the midnight of 19 July 1969. A second dose of nationalization ofsix more commercial banks followed in 1980.

The concept of international trade theory and policy deals with the different standards of international trade conceptualized to explain the different ideas of exchange of goods and services across the global boundaries. The theories of international trade have undergone rapid changes over time. The basic purpose of trade is to increase the gains from trade for the benefit of the parties involved in the buying and selling of goods and services. Whether domestic or international, the underlying motivation for trade remains constant.

This book, *Money, Banking and International Trade*, has been designed keeping in mind the self-instruction mode (SIM) format and follows a simple pattern, wherein each unit of the book begins with the Introduction followed by the Unit Objectives for the topic. The content is then presented in a simple and easy-to-understand manner, and is interspersed with 'Check Your Progress' questions to reinforce the student's understanding of the topic. A list of Questions and Exercises is also provided at the end of each unit. The Summary and Key Terms further act as useful tools for students and are meant for effective recapitulation of the text.

UNIT I INFLATION

Structure

NOTES

1.0 INTRODUCTION

According to the public understanding, inflation means a condition which produces a rising trend in the general price level in the economy. Inflation may, however, be present in the economy if the sustained price rise, which would have otherwise occurred, is prevented from occurring by imposing the price and physical controls in the economy. Such a situation is called 'suppressed inflation'. Inflation is not amenable to any one definition.

According to the Chambers 'Twentieth Century Dictionary, inflation is an 'undueincrease in quantity of money in proportion to buying power, as on an excessive issue of fiduciary money.' Gardner Ackley has defined inflation 'as a persistent and appreciable rise in the general level or average of prices.' According to this definition, a sporadic price spurt or an imperceptible rise in prices will not be inflation. Elaborating further, Ackley has stated: 'We define inflation as rising prices, not as 'high' prices. In some sense, then inflation is a disequilibrium state; it must be analysed dynamically rather than with the tools of statics.' According to Crowther, 'inflation is a state in which the value of money is falling, i.e., prices are rising.' According to Pigou, inflation exists 'when money income is expanding relatively to the output of work done by the productive agents for which it is the payment.' In general, inflation may, therefore, be defined as a sustained rise in the general price level brought about by high rates of expansion in the aggregate money supply although in the contemporary discussions on inflation it is defined as a sustained rise in the general price level, howsoever generated. All these definitions have a common feature of stressing the point that inflation is a process of rising pricesand not a state of high prices, showing a state of disequilibrium between the aggregatesupply and the aggregate demand at the existing or current prices necessitating a rise in the general price level in the economy.

In this unit, you will learn about the concept of inflation, its causes and effects. This unit will also discus the measures used for controlling inflation.

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1.1 UNIT OBJECTIVES

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

- Define the concept of inflation and its various forms
- Identify the various causes of inflation
- List the effects of inflation on various classes
- Explain the measures for controlling inflation

1.2 CAUSES OF INFLATION

Inflation is a persistent rise in the general price level rather than a once-for-all rise in it. It should be noted that most economists all around the world have assumed that price stability is the main objective of economic policies.

The value of money can be divided into four parts, which are as follows:

- Inflation
- Deflation
- Reflation
- Disinflation

Forms of Inflation

In economic life there are several forms of inflation. Some of them are as follows:

- **Production inflation:** Sometimes the production of goods and services decrease, that time the disequilibrium between the demand and the supply exist. At the time of lower level of production, the demand exceeds the supply; this situation is known as inflation. Production inflation can also exist when the production is fixed and the money income of the consumers increases.
- **Currency inflation:** As it is clear from the name, the inflation due to increase in the currency is known as currency inflation. When the government or the central bank of a country increases the money supply in a high volume, it will increase the general price level. This inflation is known as currency inflation. Normally, in the case of war or in some economic difficulties, central bank increases the money supply in a high volume.
- **Credit money:** The total money stock of a country is the sum of high power money (money supply by the central bank), and the credit creation by the commercial banks. In today's world, credit money has a significant value in the monetary system.

Inflation on the basis of motion

On the basis of motion, inflation can be divided into four parts:

- **Creeping inflation:** When there is a slow increase in the general price level due to inflation, then it is known as creeping inflation. The rate of increase in this inflation is not more than 2 per cent in a year. According to Keynes, it is a must for the development of an economy.

- **Walking inflation**: When the government and other monetary authorities are not able to control the creeping inflation, it takes the form of walking inflation. The rate of increase in the inflation is more in walking inflation, in comparison with creeping inflation. It affects the people adversely. According to Keynes, this is the form of real inflation.
- **Running inflation:** In running inflation, the rate of increase in the inflation increases at a higher rate. It affects the fixed income group adversely.
- **Galloping inflation:** It is the worst form of inflation, which is possible in any country after the failure of central bank, and other monetary authorities. In this situation, the increase in price affects people very badly and the prices became uncontrollable. According to Keynes, 'this condition of inflation is possible only after the point of full employment.'

Inflationary and Deflationary Gap

It should be noted that equilibrium cannot be on the full employment level. It should be considered that the equilibrium level may involve much unemployment and waste of natural resources. It means that the only level of equilibrium that can be considered desirable is that which provides the near full employment.

Inflationary Gap

The concept of inflationary gap has been propounded by Keynes. According to Keynes, inflationary gap arises when consumption and investment spending together are greater than the full employment gross national product level.

In other words, it is a gap between money incomes of the community and the available supply of output of goods and services. In this situation, more goods will be demanded than the economic system can produce. The result will be that the prices will begin to rise and an inflationary situation will emerge.

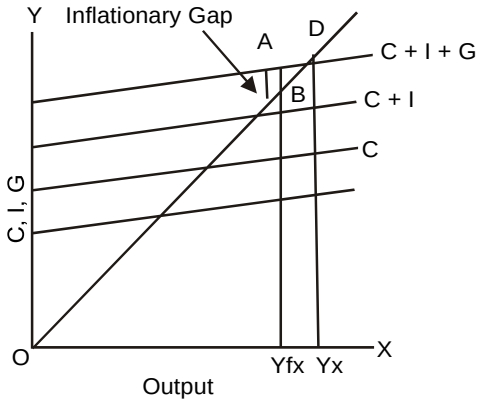

***Fig. 4.1** Inflationary Gap*

In Figure 4.1, the inflationary gap has been shown. C, I, G stand for the consumption, Investment and the Government Expenditure. (C+I+G), shows the total expenditure on demand in the economy. At this level Yx is the total real output. Yfx shows a full employment limit on real output Yfx. Real income of the economy cannot reach Yx, so the total demand (C+I+G), exceeds total output, leaving a gap AB, which is known as inflationary gap.

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Deflationary Gap

Similarly, you can show the deflationary gap with the help of a graph. This would come into existence, if total aggregate demand is insufficient to create the full employment. Yx is the total output at full employment. Let us assume that the total demand is (C+I+G)' which cuts the 45° line at B, with real output Y'x. AB is the deflationary gap.

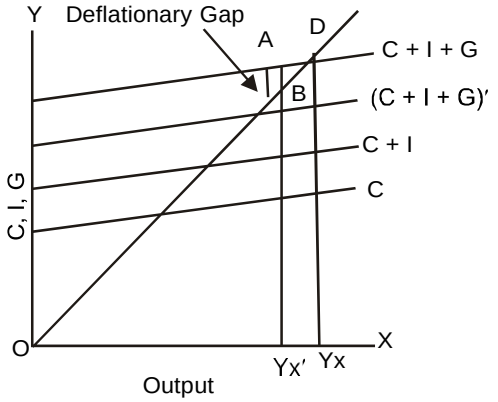

***Fig. 4.2** Deflationary Gap*

In figure 4.2, the deflationary gap has been shown. The output has been assumed on X axis, on the other hand consumption, investment and the government expenditure have been shown on the Y axis. The deflationary gap has been shown in the graph as AB.

Demand Pull Inflation

This represents the situation where the basic factor at work is the increase in the aggregate demand for output either from the government or the entrepreneur or the households. The result is that the pressure of demand is such that it cannot be met by the currently supply of output.

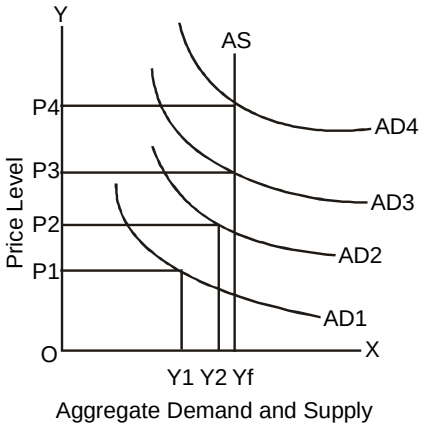

***Fig. 4.3** Demand Pull Inflation*

It should be noted that Keynes has propounded the concept of demand pull inflation in his booklet, *How to Pay for war*, and it is surprising that it was published during the Second World War. In this theory, Keynes has explained the inflation in terms of excess demand for goods to the aggregate supply of their output.

In Figure 4.3, you have assumed the aggregate demand and aggregate supply on the X axis; on the other hand you have assumed the price level on the Y axis. Aggregate supply curve is upward in the beginning but became vertical after the full employment level. According to the figure when it intersects the AD3, it becomes vertical, because after the full employment, the supply of output cannot be increased.

When the aggregate demand was AD1, the equilibrium is at the level less than full employment and the price decided is P1. When the aggregate demand increased from AD1 to AD2, the price level also increased from P1 to P2. it should be noticed in this case the aggregate output supplied also increased from OY1 to OY2. If the aggregate demand further increased to AD3, the price level rises to P3, and the output increased to OYf.

If the aggregate demand further increases, say to AD4, only price level rises to OP4 , and the output remains constant at Yf. OYf is the full employment level of output and aggregate supply curve is perfectly inelastic at Yf.

Factors that Increase or Decrease Aggregate Demand

Aggregate demand can increase or decrease depending on several factors. These factors cause upward or downward shifts in the aggregate demand curve. These are as follows:

Exchange Rates: When the exchange rate increases, this results in a decrease in net exports. Thus, aggregate expenditure will go down at all prices, that is, aggregate demand will decrease.

Distribution of Income: When the real wages of people increase, they have more money to spend and consume. This results in an increase in the consumption expenditures to increase.

Expectations: Consumers adjust their spending in accordance with their expectations of the economy. If they expect the economy to not do so well in the future, savings would increase thus overall expenditures will decrease. Rising price levels will cause aggregate demand to increase. If consumers foresee the price level to rise in the near future, they might just go out and buy that good now, increasing the consumption expenditures in aggregate demand.

Monetary and Fiscal Policies: Government policies have an effect on aggregate demand. Government spending or increase in taxes influence how consumers spend or save. An expansionary fiscal policy of the government causes aggregate demand to increase, while a contractionary monetary policy causes it to decrease.

Cost Push Inflation

In the early theories of inflation, the emphasis was given only on the inflation created by the demand. In the classical quantity theory of money and also in the Keynesian theory of money, both suggested that the reason of inflation is the excess of aggregate demand over the supply. However, after 1950, a new theory came into existence, the cost push inflation or in other words new inflation theory. The theory explains that inflation occurs because of the rise in the cost of goods by an increase in the cost of production.

Some economists have found nothing new in the new inflation theory as Martin Bronfenbrenner and F. D. Holzman stated. Cost inflation has been the layman's instinctive explanation of general price increase, since the dawn of the monetary system.

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The cost push inflation can be divided into three parts, such as follows:

- Wage push inflation
- Profit push inflation
- Increase in prices raw materials, like crude oil prices and energy prices

Wage Push Inflation

In today's world, trade unions are very strong, and they push the producers for higher wages. In this theory, it has been discussed that mainly the trade unions are responsible for wage push inflation. When trade unions push for higher wages, which are not justifiable either on the grounds of a prior rise in productivity or of cost of living, they produce a cost push effect.

In the above situation, the employer is bound to increase the wages, because of the competition in the labour market. Employers also like to think that they can pass on these cost to the consumers in the form of hike in prices. This situation is known as wage push inflation. Wage push inflation is a major cause of cost push inflation. Cost push inflation tell us that even if the aggregate demand is not increasing, prices may be able to rise, because of the increase in the cost of production.

It should be noted that with the increase in the wages, the aggregate supply curve shifts towards left, with a given aggregate demand curve. This results in higher prices of output.

Profit Push Inflation

The profit push inflation is one of the causes of cost push inflation; firms operating under the monopoly market or in oligopolistic market can charge a higher price to increase their profits. In the above case because of the increase in wages of the employees, the cost push inflation exists. However, in this case, the cause of cost push inflation is the increase of profit. Also, in this case the aggregate supply curve shifts towards left with the fixed aggregate demand curve, and the result is increase in price (Figure 4.4).

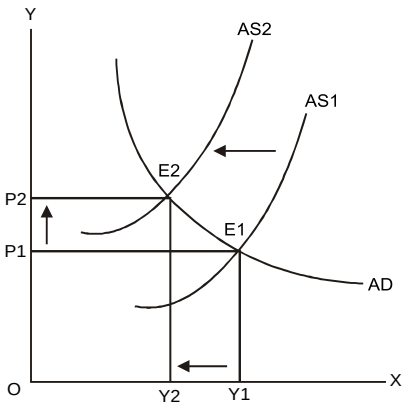

Fig. 4.4 *Cost Pull Inflation*

Rise in Raw Material Prices

In addition to the rise in wage rate of labour and increase in profit margins, you have one more reason of cost push inflation, and that is the rise of raw material prices. The same happened in the seventies, when the OPEC increased the price of crude oils. As a result, the aggregate supply decreased, resulting in cost push inflation.

It should be noted that an important feature of cost push inflation is that this not only causes rise in price level, but brings about a fall in aggregate output.

Generally speaking, the cost push inflation in the economy occurs as a result of the combination of all the factors discussed above: wage push inflation, profit push inflation and the rise in the price on raw materials. According to those who feel that prices are pushed up by rising costs rather than by the demand pull forces, some control in the form of prices and incomes policy is necessary to bring the spiral of rising prices to a halt.

Both the demand pull and the cost push inflations are closely related, and intertwined with the now widely held view that the problem of inflation is more sociological than economic in nature.

Check Your Progress

1. List some of the forms of inflation.
2. What do you understand by creeping inflation?

1.3 EFFECTS AND CONTROL OF INFLATION

The future of the governments and the political parties depend on how they tackle the problem of inflation. Many aspects of our everyday activities are in some way influenced by the level of and changes in the rate on inflation.

A high rate of inflation makes the life of the poor very miserable. During mild inflation, consumers generally cut their spending on luxurious goods, corporate profits increases sharply due to the increase in price and they build up new inventories. Also in government sector, the tax collected from indirect tax also rises. It also affects the income distribution of the economy.

We can divide the effects of inflation into six parts, as given below:

1. Effects of inflation on producers and traders class
2. Effects of inflation on investors class
3. Effects of inflation on laboures and other fixed income groups
4. Effects of inflation on consumers class
5. Effects of inflation on debtors and creditors class
6. Other effects of inflation

Before discussing the effects of inflation on different classes of the economy, this section will discuss the concepts of anticipated and unanticipated inflation.

Anticipated Inflation

If the people know that in the coming time period the rate of inflation is going to increase, this inflation is known as anticipated inflation. If rate of inflation is anticipated, people take steps to make suitable adjustment in their contracts to avoid the adverse effects which inflation could bring to them.

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For instance, a worker correctly anticipates that in the coming year the rate of inflation will be 15 per cent. Suppose, his income in the existing year is ` 10,000, then he can make a contract with his employer to increase the wage by 15 per cent in next year, so he will get ` 11,500 in the next year. This way he will not be affected by the rise in the inflation rate.

Unanticipated Inflation

Suppose, a worker is not able to anticipate the inflation rate, it means in next year he will also get the same wage, i.e., 10,000. However, in real term, his real income was decreased by 15 per cent, due to the increase in the rate of inflation.

Effects of Inflation on Producers and Traders Class

From the view point of producers and traders, inflation is always very useful, in the period of inflation they earn much profit and soon they became financially strong. There are many reasons for this such as follows:

- In the period of inflation, the cost of production and price both increase, but the rate of increase in price is much higher than the increase in the cost of production. That's why a lower cost of production producer charges a higher price and earns a higher rate of profit.
- In the period of inflation, the demand is much higher even at a higher price; the result is same as above, a higher rate of profit.
- In the period of inflation the liquidity increases. That's why people can purchase more, so the demand of the consumer increases. The producer can sell all the goods easily even at a higher price.

Effects of Inflation on Investor's Class

Here, the meaning of investor class is those people who invest their capital in the industry. On the basis of investment, investor class can be divided into two parts, (i) investors of fixed income and (ii) investors of variable income.

Investors of Fixed Income

Those investors received fixed return from their investment, like investment in the debentures; they receive a fixed income for their investment. In the period of inflation this type of investors are in loss, because their real income decreases.

Investors of Variable Income

The incomes of the investors of variable income depend on the change in the value of money and on the business. They usually invest into the shares of a company. Because they earn in the period of inflation and they earn their share through increase in the price of the share.

Effects of Inflation on Labourers and other Fixed Income Groups

Generally, this sector includes the service sector; the persons who sell their services like, agricultural labour, industrial worker, teachers all come under this group. Because they belong to fixed income group, it means in the period of inflation the purchasing power of this group decreased. It is also true that they can have more new job offers in the period

of inflation, and the employers also pay the dearness allowances for this inflation, but that dearness allowance cannot off-set the inflation, that's why the labourer's do the strikes.

Effects of Inflation on Consumer Class

Every person in this world is a consumer. No matter he is a producer or the supplier of the factors of production. From the view point of a consumer inflation is always bad.

Effects of Inflation on Debtors and Creditors Class

In the period of inflation the purchasing power of the money decrease. That's why the real burden of the tax decreases. In other words, in the period of inflation the payment of debt is not a tough task; in this period the debtor is in a better position than the creditor. For example, you lend ` 20,000 to a person at a rate of 5 per cent per annum, after one year you will receive ` 21,000. However, if there will be 4 per cent rate of inflation then your 4 per cent of income will be offset by the rise in prices, and effectively you will get only 1 per cent real rate of interest.

Other Effects of Inflation

The following are the other effects of inflation.

- **Unequal distribution of wealth:** Because of the inflation, there can be a centralization of the economic power, producers and the traders earn a higher profit and persons who belong to the fixed income group have to bear the loss. As a result, there will be unequal distribution of income and wealth.
- **Increase in taxation:** In the period of taxation, governments generally revise the old taxes and it also implements new taxes, to decrease the purchasing power of the consumers.
- **Increase in immorality:** This effect can be understand with the help of some definitions. According to Michael Levy; many people lose their health and happiness trying to accumulate money and that makes it most expensive thing on earth.

Effect of Inflation on Growth of Banking Sector

In the period of inflation, the monetary income of the people increase very fast. Hence, the insurance and the banking sector have changed completely.

Effect of Inflation on Balance of Payment (BOP)

Because of the inflation the balance of payment of any country can be adverse. Inflation leads to the increase in the price level, it affects the export very badly on the other hand it attracts the imports. As a result the balance of payment became negative or in other words adverse.

Adverse Effect on Savings

In the time period of inflation, the purchasing power of the consumers decrease, they have to pay more for the same amount of commodities. That's why they have to decrease the amount of savings. In other words, inflation affects the rate of savings adversely.

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Control of Inflation

With the help of above discussion, you can conclude that the inflation is very bad from the view point of economy, it can affect the economic and social structure of the economy adversely. There are several measures to check the inflation; some of them are as follows:

- Monetary measures
- Fiscal measures

Monetary Measures

In monetary measures the government of a country tries to control the inflation through the central bank of that country. The central bank follows a strict monetary policy, through which central bank takes the excess money supply from the economy.

Instruments of Money Control

There are many instruments to control the money supply in the economy. Some of the main instruments of money control are as follows:

1. **Open market operation**: The term open market operation means the purchase and sale of government securities by the RBI from and to the public and also from and to the banks. When there is a situation of inflation in the economy, that time government can sell the government securities to the public and also to the bank to soak the excess liquidity interms of excess money supply from the economy.

   As you know that because of excess money supply, price of the goods and services increase, because of increase in demand for goods and services. With the sale of government securities to the public and to the bank, government takes back the excess money supply from the economy. Through this process government can check the inflation by using this instrument of money control.

   On the other hand, if there is a recession in economy. In this situation, government can correct the situation by purchasing the government securities from the public and from the banks. In recession, aggregate demand for the goods and the services decrease and because of this the production also decrease and consequently the employment.

   To correct the condition of unemployment, decrease in aggregate demand of goods and services government purchase the government securities from the public and from the banks. By the help of this process, the government injects liquidity into the economy, and it corrects the situation of recession. In most of the developing countries open market operation is regarded as the most efficient instrument of the monetary policy.

2. **Variation in reserve requirement:** Banks have to keep certain proportion of their assets in the form of cash. It is for two reasons. The first reason of holding the cash is to meet their daily transactions and the second reason of holding the cash reserve is statutory reserve requirement. Balance with the RBI is known as reserve requirement. This reserve requirement is known as CRR. According to the RBI Act 1956, the RBI can impose the CRR between 3 to 15 per cent on their net demand and time liabilities. The working of CRR can be explained with the help of two conditions of the economy. In the condition of inflation, when there is an excess money supply in the economy, RBI increases the CRR. With the increase

in CRR, the lending power of the commercial banks decrease, the availability of the credit to the public also decrease.

On the other hand, if there is a condition of recession in the economy. In this condition RBI decreases the CRR, so that the lending power of the commercial banks increase, and also the availability of credit to the public. By increasing and decreasing the rate of the CRR, RBI can affect the availability of the credit to the public.

3. **Bank rate policy:** The instrument of bank rate also plays a crucial role in money control. Bank rate is a rate at which RBI should be prepares to buy or rediscount eligible bills of exchange and other commercial papers. The bill market in India is not well developed in comparison with other developed countries, that's why RBI has to makes advances to banks mainly in other forms.
4. **Working of bank rate:** An increase in the bank rate raises the cost of borrowed reserves by the commercial banks, and subsequently the commercial banks increase the PLR (prime lending rate), which discourages the public to take loans from banks. By increasing bank rate, RBI can decrease the money supply in the economy.

   On the other hand, a decrease in bank rate decreases the cost of borrowed reserves by the commercial banks, and subsequently the commercial banks decrease the PLR. Hence, people can avail loans at a lower interest rate. By decreasing the bank rate, RBI can increase the money supply in to the economy.
5. **Statutory liquidity ratio:** Statutory liquidity ratio is another instrument of money control. According to this instrument each and every commercial bank has to require statutory to maintain a minimum proportion of their daily total demand and time liabilities in the form of liquid assets.

   Liquid assets can be as follows:
   - Other approved securities
   - Current-account balances with other banks

By increasing and decreasing of statutory liquidity ratio the RBI can increase or decrease the money supply in to the economy.

In the condition of excess money supply, RBI increases the statutory liquidity ratio, to decrease the lending power of the banks. In controlling the money supply, statutory liquidity ratio works indirectly rather than directly.

Moral Suasion

Moral suasion is a combination of persuasion and pressures. The central bank of any country is always in a position to use this on commercial banks. In this instrument, the bank uses discussions, letters and speeches. The RBI issues letters to banks making clear its policy and urging banks to fall in line.

Selective Credit Control

Normally selective credit control is used in western countries. The working of this instrument is very simple; the availability of bank finance for purchasing and holding some commodities is restricted. In India, the holding of food grains, agricultural raw material and other essential commodities is restricted to control the undue rise in their prices.

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Fiscal Measures

The fiscal policy is prepared by the union finance minister. The first goal of the fiscal policy is to increase tax revenue as well as non-tax revenue. On the other hand, the other goals of fiscal policy are to maintain public services like food, shelter, safe drinking water, to bridge the gap between rich and poor, to control the money in circulation, full employment and to increase the rate of saving and rate of investment.

The fiscal policy is a projected balance sheet of the nation or a country. It is a study of allocation of the resources and generating those resources. The Finance Minister implements the fiscal policy through the budget. The budget is a future statement of revenue and expenditure of the state or a nation. According to Harvey and Johnson changes in government expenditure and taxation are designed to influence the patterns and level of activity.

With the help of fiscal policy, a government tries to bridge the gap in income levels, which affects the development of the country. With the equal distribution of income and wealth, a country can perform well in all the sectors. According to Otto Eckstein, changes in taxes and expenditure which aim at short-run goals of full employment, price level and stability.

Meaning of Budget

Budget has an important role in the economy of any country. It is the central point of the financial administration. The government can affect the economic activities of the country with the help of budget in terms of allocation and administration of the available resources. The budget is vertically divided into two parts: revenue and expenditure. Horizontally, it is divided into two part revenue account and capital account.

Objectives of Fiscal Policy

The major objectives of the fiscal policy are as follows.

- To finance various developmental projects, mobilization of resources is needed
- To get the maximum utilization of the available resources
- To get full employment
- To decrease regional disparities
- To control the inflationary pressure in the economy
- To reduce the per centage of below poverty line (BPL) population
- To increase the rate of capital formation with the increasing rate of saving and investment

Aspects of Fiscal Policy

There are mainly four aspects of fiscal policy, which are as follows:

1. **Taxation policy:** Taxation policy plays a vital role in the collection of revenue for the government in any country. Government can impose a direct tax and indirect tax. Direct tax is the tax in which impact and incidence of tax burden are on the individual person. In other words, he or she cannot shift the tax burden to others. In indirect tax, shifting of tax burden is possible.

The main objectives of the tax policy are as follows:

- To mobilize idle resources
- To bridge the gap between rich and poor
- To check the inflation by adopting an anti-inflationary taxation policy
- Public expenditure policy
- Public debt policy
- Deficit financing policy

2. **Public expenditure policy:** In developing countries fiscal policy has a vital role in the economic development of the countries. After collecting the revenue from the public, government engages in public expenditure, which can be developmental or non-developmental expenditure. Developmental expenditures are generally related with developmental activities like roads, hospitals, bridges, infrastructure, railway. Non-developmental expenditures are generally related with maintenance of law and order, defence and so on.
3. **Public debt policy:** Mostly in developing countries, people have a low taxable capacity. They cannot afford a higher rate of tax imposed by the government. To finance the developmental projects governments take loans from the public. It is known as public debt. Public debt helps the government in two ways, firstly it soaks the excess liquidity from the market that creates the inflationary pressure, and secondly it helps the government in financing the developmental projects, which are necessary for the economic development of the country. This debt can be internal or external. Government can also take the loan from the external resources like, World Bank, IMF, IDA etc.
4. **Deficit financing policy:** When the government expenditure exceeds the government revenue, this condition is known as deficit, and to finance that deficit government apply this policy. In this policy government can take the loan from the central bank in the form of issuing the fresh currency to finance the deficit. In the developing countries, where the taxable capacity, as well as rate of saving and the rate of investment are low, deficit financing policy is very useful for the economic development of those countries.
5. **Increase in taxation:** With an increase in the taxation, the disposable income of the consumers decreased, now because the purchasing power of the consumer decreased they can purchase a lesser amount of goods. Both the taxes have the adverse effect on purchasing power, direct tax and indirect tax.

   Direct tax decreased the disposable income of the consumer and on the other hand, indirect tax increased the prices of the commodities. Thus, by increasing the rate of tax, government can control the inflation.
6. **Decrease in the public expenditure:** In the period of inflation, the government should decrease the amount of public expenditure, so that the velocity of the money decreased. The main policy in the period of inflation should be decrease in the unproductive expenditure.
7. **Increase in public debt:** In the period of inflation, the government should take the public debt in larger amount. It affects the inflation in two ways, first it reduces the purchasing power of the consumers and secondly, after collecting the debt from the public, government can invest that into the manufacturing process, so that the output of the economy increased. With an increment in the output government can control the inflation.

8. **Balanced budget policy:** In the period of inflation, government should follow the balanced budget policy. Government should not prepare the deficit budget in the inflation, because it leads to the inflation.
9. **Control over consumption:** In the period of inflation, the government should control the consumption, especially unproductive and demonstration expenditure.
10. **Encouragement to savings:** In the period of inflation, government should encourage saving, it can be through launching of new saving schemes. Government should also increase the deposit rates.
11. **Overvaluation:** In the period of inflation, government can also over valuate the value of the currency, through over valuation will cause exports to decrease and imports to increase.
12. **Control over investment:** You have seen that in the period of inflation, investment increased in a larger amount. Because of this the profit as well as the inflation both increases. Banks and other financial institutions also provide the loan easily in this time period, the government should control it.

Some other measures to curb inflation are as follows:

- **Increase in production:** The best and the most convenient way to control inflation is to increase the amount of production. In the time period of inflation, the agriculture and the industrial sectors should be promoted through tax relief and subsidy.
- **Proper use of tariffs and quotas:** In the time period of inflation, imports should be promoted and on the other hand, exports should be minimized through proper use of tariffs and quotas.

CHECK YOUR PROGRESS

3. What are the two types of investor class?
4. Name the two measures that can be used to check the inflation.
5. Write any three objectives of fiscal policy.

1.4 SUMMARY

1.4.1 Inflation is a persistent rise in the general price level rather than a once-for-allrise in it. It should be noted that most economists all around the world have assumed that price stability is the main objective of economic policies.

1.4.2 The concept of inflationary gap has been propounded by Keynes. According to Keynes, inflationary gap arises when consumption and investment spending together are greater than the full employment gross national product level.

1.4.3 In today's world trade, unions are very strong, and they push the producers for higher wages. In this theory, it has been discussed that mainly the trade unionsare responsible for wage push inflation.

1.4.4 The profit push inflation is one of the causes of cost push inflation; firms operating under the monopoly market or in oligopolistic market can charge a

higher price toincrease their profits.

- Both the demand pull and the cost push inflations are closely related, and intertwined with the now widely held view that the problem of inflation is more sociological than economic in nature.
- The future of the governments and the political parties depend on how they tackle the problem of inflation. Many aspects of our everyday activities are in some way influenced by the level of and changes in the rate on inflation.
- The incomes of the investors of variable income depend on the change in the value of money and on the business. They usually invest into the shares of a company. Because they earn in the period of inflation and they earn their share through increase in the price of the share.
- In the period of inflation, the monetary income of the people increase very fast. Hence, the insurance and the banking sector have changed completely.
- In monetary measures the government of a country tries to control the inflation through the central bank of that country.
- The term open market operation means the purchase and sale of government securities by the RBI from and to the public and also from and to the banks.
- The instrument of bank rate also plays a crucial role in money control. Bank rate is a rate at which RBI should be prepares to buy or rediscount eligible bills of exchange and other commercial papers.
- Statutory liquidity ratio is another instrument of money control. According to this instrument each and every commercial bank has to require statutory to maintain a minimum proportion of their daily total demand and time liabilities in the form of liquid assets.
- The fiscal policy is prepared by the union finance minister. The first goal of the fiscal policy is to increase tax revenue as well as non-tax revenue.
- Budget has an important role in the economy of any country. It is the central point of the financial administration. The government can affect the economic activities of the country with the help of budget in terms of allocation and administration of the available resources.

1.5 KEY TERMS

1.5.1 **Currency inflation:** The inflation due to increase in the currency is known as currency inflation. When the government or the central bank of a country increasesthe money supply in a high volume, it will increase the general price level.

1.5.2 **Running inflation:** In running inflation, the rate of increase in the inflation increasesat a higher rate. It affects the fixed income group adversely.

1.5.3 **Inflationary gap:** An inflationary gap, in economics, is the amount by which the actual gross domestic product exceeds potential full-employment GDP. It is one type of output gap, the other being a recessionary gap.

1.5.4 **Direct tax:** Direct tax is the tax in which impact and incidence of tax burden areon the individual person.

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1.6 ANSWERS TO 'CHECK YOUR PROGRESS'

1. In economic life there are several forms of inflation. Some of them are as follows:
   - Production inflation
   - Currency inflation
   - Credit money
2. When there is a slow increase in the general price level due to inflation, then it is known as creeping inflation. The rate of increase in this inflation is not more than 2 per cent in a year. According to Keynes, it is a must for the development of an economy.
3. On the basis of investment, investor class can be divided into two parts, such as follows:
   - Investors of fixed income
   - Investor of variable income
4. The two measures that can be used to check the inflation are monetary and fiscal measures.
5. The three objectives of fiscal policy are as follows:
   - To finance various developmental projects, mobilization of resources is needed
   - To get the maximum utilization of the available resources
   - To get full employment

1.7 QUESTIONS AND EXERCISES

Short-Answer Questions

1. State the main objectives of fiscal policy.
2. What are the effects of inflation and how can inflation be controlled?
3. Write short notes on the following:
   - Cost push inflation
   - Wage push inflation
   - Profit push inflation
4. Differentiate between anticipated and unanticipated inflation.
5. What do you understand by the concept of inflationary gap?

Long-Answer Questions

1. Describe the forms of inflation on the basis of motion.
2. Discuss the effects of inflation on various classes.
3. Explain the various aspects of fiscal policy.
4. List some of the main instruments of money control.

1.8 FURTHER READING

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NOTES

UNIT II INTERNATIONAL TRADE

Structure

NOTES

2.0 INTRODUCTION

International trade, as it indicates, pertains to only bilateral or multilateral trade activities. Trade activities between two or more countries can be understood both at macro level, i.e., country level, and also at micro level, i.e., firm or company level. The trade between two countries (India's trade with the US, UK, France, etc.,) means export and import of various goods and services at country level, terms of trade and balance of trade, and also balance of payments.

In this unit, you will analyse international trade theories and its policies and strategies. Two traditional or classical theories of international trade are those of absolute advantage and comparative advantage. These theories were put forward by two classical economists, Adam Smith (1776) and David Ricardo (1817). Apart from this, you will learn about the balance of trade and balance of payments. This unit will also deal with the disequilibrium in the balance of payments and its corrective measures.

2.1 UNIT OBJECTIVES

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

- Identify Smith's and Ricardo's theories of international trade
- Analyse the reasons for the gains in trade
- Explain the concept of terms of trade, balance of trade, and balance of payments
- Discuss the disequilibrium in the balance of payments and its corrective measures

2.2 SMITH'S AND RICARDO'S THEORIES OF INTERNATIONAL TRADE

Adam Smith, the father of economics, was the first to formulate a theory of international trade. His theory of foreign trade is known as the theory of absolute advantage. According to his theory, the basis of trade between any two countries is the absolute cost advantage

a country has in the production of a commodity compared to costs in the other country.

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In simple words, trade between any two countries takes place because each one can produce a commodity at a comparatively lower cost.

To explain this further, let us say it is possible for all countries to produce most of the commodities they need, in spite of their resource constraints. However, given the resources of a country, the cost of production will vary from commodity to commodity. While the cost of production of some goods is relatively low, that of others is relatively high. In Adam Smith's terminology, while a country has an absolute advantage in the production of some goods, it has an absolute disadvantage in the production of some other goods. Therefore, there is a general tendency for countries to specialize in the production and export of goods in which they have an absolute cost advantage and import goods in which they an absolute disadvantage. For example, India can produce garments at a lower cost, but pearls and precious stones only at comparatively higher cost. It is therefore gainful for India to produce and export garments and import pearls and precious stones.

Adam Smith's absolute advantage theory of trade can be illustrated through a simple example of two countries and two commodities. Going by the reasoning of the theory of absolute advantage, let us make the following assumptions:

- There are only two countries, A and B, producing and consuming only two commodities, X and Y
- Labour is the only factor of production, available in both countries
- Cost of production is measured in terms of labour cost
- Labour cost is measured in terms of man-hours per unit of output

To illustrate Adam Smith's theory of international trade, let us suppose that the labour cost of production of the two commodities, X and Y, in the two countries, A and B, is given as shown in Table 5.1.

Table 5.1 *Labour Cost (Man-Hours) Per Unit of Output*

Country	**Commodity**	
	X	*Y*
A	30	60
?B	50	20

As Table 5.1 shows, country *A* can produce one unit of commodity *X* at the cost of 30 man-hours whereas country *B* can produce one unit of *X* at the cost of 50 man-hours. Obviously, the production cost of commodity *X* in country *A* is much lower than in country *B*. This means that country *A* has an absolute advantage in producing commodity *X* compared to country *B*. In case of commodity *Y*, country *A* needs 60 man-hours to produce one unit of *Y*, and country *B* needs only 20 man-hours. Thus, country *B* has an absolute advantage in producing commodity *Y*. Under these cost conditions, if there is trade option, country *A* would specialize in the production of commodity *X* and country *B* in commodity *Y*. Given their specialization in the production of goods, country *A* will export commodity *X* and import commodity *Y*, and country *B* would export commodity *Y* and import commodity *X*. This is how trade takes place between any two nations.

Gains from Trade

According to Smith's theory of absolute advantage, trade between the two countries, *A* and *B*, benefits both of them. The gains from trade arises on account of the following two factors:

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2.2.1 Increase in the aggregate supply of both the goods, *X* and *Y*

2.2.2 Low price of both the goods because of lower costs in both countriesLet us now look at the reasons for these gains.

1. **Increase in aggregate supply:** The aggregate supply of both the goods, *X* and *Y*, increases because each country employs its labour force to produce a commodity whose labour cost is lower. Country *A* employs its labour force to produce commodity *X* and country *B* to produce commodity *Y*. Since, the labour cost of these commodities is comparatively lower, given their labour supply, country *A* can produce more of commodity *X* and country *B* can produce more of commodity *Y*. This increases the overall supply of both the commodities.

2. **Availability of goods at a lower price:** When trade opens between the two countries, they specialize in the production of the low-cost goods. Therefore, the cost of production goes down. When the barter rate is determined on the basis of production costs, the price for each good goes down. For example, in the absence of trade, country *A*, given its labour cost structure, will have to sacrifice 2 units of *X* to produce 1 unit of *Y*. However, in case of foreign trade, country *A* will get 5 units of *Y* by exporting 2 units of *X*, or may be less, if the barter exchange rate is fixed otherwise. What happens in country *B*? When there is no trade, country *B* will also have to produce both the goods, *X* and *Y*. Given its labour cost structure, the exchange rate in domestic trade in country *B* will be $1X = 50/20 = 2.5Y$, or $1Y = 20/50 = 0.4X$. That is, country *B* will get only 0.4 units of *X* for 1 unit of *Y*. With trade, it will be 2 units of *X*.

   Thus, foreign trade enables both countries to produce and consume a larger quantity of both the goods at a lower price. This is how countries gain from foreign trade. The overall gain to each country depends on their total exports and imports.

Weaknesses of the Absolute Advantage Theory

The absolute advantage theory of trade is undoubtedly logically sound. However, economists have pointed out some serious drawbacks of this theory.

First, the absolute advantage theory implies that trade between any two countries would be mutually gainful only if each country has absolute advantage in the production of at least one good and absolute disadvantage in another. It implies that if a country has absolute advantage in the production both the goods and the other country has absolute disadvantage in the production of both the goods, there is no basis of trade between them. However, this has not been found to be the case in reality.

Second, the absolute advantage theory is based on the labour theory of value. This implies that labour is the only factor used in the production of a commodity. In reality, however, capital is also used in the production of goods. Although Adam Smith ignored capital as a factor of production and the capital cost of production.

Third, even if it is assumed that labour is the only factor of production, as it used to be in agricultural production in olden times, the labour theory of value has been found

to be invalid for value determination, especially in the case of foreign trade as it also involves the cost of transportation.

Ricardian Theory of Foreign Trade: Theory of Comparative Advantage

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Adam Smith's theory of absolute advantage, formulated in 1776, prevailed for four decades, in spite of its weaknesses, until Ricardo formulated his own theory of international trade in 1817 in his book *Principles of Political Economy and Taxation*. Ricardo pointed out the deficiencies in Adam Smith's theory of foreign trade and formulated his own theory, known as the comparative advantage theory of trade.

According to the Ricardian theory of comparative advantage, gainful trade is possible between any two nations even if one of them has absolute advantage in producing all the goods, but has comparative cost disadvantage in producing one of the goods. By using a two-country, two-commodity model, Ricardo demonstrated that there can be gainful trade if one of the countries has an absolute advantage in producing both the goods, but a comparative disadvantage in producing one of the goods and the other country has a comparative disadvantage in producing both the goods.

Assumptions

Before we proceed to explain Ricardo's theory of comparative advantage, let us look at the assumptions on which Ricardo postulated his theory of trade:

- The world consists of only two nations, *A* and *B*.
- Countries *A* and *B* produce and consume only two goods, *X* and *Y*.
- Labour is the only factor of production used by the two countries.
- Labour is homogenous in both the nations.
- Production technology in respect of both goods is given in each country.
- The value of commodities is determined only in terms of their labour cost.
- Labour supply in both the countries is given and labour is fully employed.
- Labour is freely mobile within the country between industries, but absolutely immobile between countries.
- Production of the two goods, *X* and *Y*, is subject to constant returns and constant costs.
- Markets for both goods are perfectly competitive in both the countries.
- Both countries follow a free-trade policy and there are no trade barriers.
- There is no transportation cost, i.e., goods are transportable at zero cost.

The Comparative Advantage Theory

To elaborate his theory, David Ricardo used a model of two countries, viz., England and Portugal, producing and consuming two goods, viz., wine and cloth. However, we use our own model consisting of two countries (*A* and *B*) and two commodities (*X* and *Y*) to elaborate on the Ricardian theory of comparative advantage. Let us assume that the cost structure for goods *X* and *Y* in the two countries, *A* and *B*, is given as presented in Table 5.2.

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Table 5.2 *Labour Cost (Man-Hours) Per Unit of Output*

Country	Man-hour cost per unit of commodity	
	X	*Y*
A	30	45
B	60	50

As the table shows, country *A* is more efficient in producing both the goods as its cost of production is lower for both goods. However, a comparison of the comparative cost of the goods (in terms of labour cost) in the two countries shows that country *A* has a comparative advantage in producing commodity *X* and country *B* has a comparative advantage in commodity *Y*. Country *A* has a comparative advantage in the production of *X* because its comparative production cost of *X* is only 30/45 = 2/3 of the production cost of *Y*, but its comparative cost of *Y* is 45/30 = 1.5 times higher than the cost of commodity *X*. This means that country *A* has a comparative disadvantage in producing commodity *Y*.

By the same logic, country *B* has a comparative advantage in producing commodity *Y* as its production cost of *Y* is lower (50/60) than the production cost of *X* (60/50) and it has a comparative disadvantage in producing *X* because its relative cost is higher.

Thus, a comparison of the relative costs of the two goods in the two countries reveals that the comparative cost of *X* is lower in country *A* and the comparative cost of *Y* is lower in country *B*. This means that country *A* has a comparative advantage in commodity *X* and country *B* has a comparative advantage in commodity *Y*.

The comparative advantages of countries *A* and *B* in producing commodities *X* and *Y*, respectively, can be explained further by using the concept of opportunity cost. Given the labour supply, the opportunity cost of producing a commodity is the quantity of the other commodity that has to be sacrificed. For example, in country *A*, the opportunity cost of producing 1 unit of *Y* is 45/30 = 1.5 units of *X*, i.e., the opportunity cost of 1*Y* = 1.5*X*, and the opportunity cost of *X* is 30/45 = 2/3 units of *Y*. The opportunity costs of *X* and *Y* in countries *A* and *B* are given in Table 5.3.

Table 5.3 *Opportunity Cost* of X and Y*

Country	Per unit opportunity cost	
	X	*Y*
A	30/45 =0.67 units of *Y*	45/30 =1.5 units of *X*
B	60/50 =1.2 units of *Y*	50/60 =0.83 units of *X*

* Opportunity cost calculated as labour-cost ratio.

As Table 5.3 shows, the opportunity cost of *X* (= 0.67 units of *Y*) in country *A* is lower than the opportunity cost of *Y* (=1.5 units of *X*). This means, that country *A* has to sacrifice only 0.67 units of *Y* to produce 1 unit of *X* whereas, in absence of trade, it has to forego 1.5 units of *X* to produce 1 unit of *Y*. This shows that country *A* has a comparative advantage in commodity *X* and a comparative disadvantage in commodity *Y*.

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In the case of country *B*, the opportunity cost of *Y* (0.83 units of *X*) is lower than the opportunity cost of *X* (1.2 units of *Y*). This means that country *B* has to sacrifice only 0.83 units of *X* to produce 1 unit of *Y* whereas in the absence of trade, the country has to forego 1.2 units of *Y* to produce 1 unit of *X*. This means that country *B* has a comparative advantage in commodity *Y* and a comparative disadvantage in commodity *X*.

Thus, from the labour-cost structure of the two goods in the two countries as given in Table 5.2, it may be concluded that there is no ground for trade between countries *A* and *B*. However, according to the Ricardian principle of comparative advantage, there is a strong basis for gainful trade between the two countries. Country *A* would specialize in the production of commodity *X* and import commodity *Y*; and country *B* would specialize in the production of commodity *Y* and import commodity *X*. Both countries will benefit from trade.

Gains from Foreign Trade

We have discussed above the theory of comparative advantage and proved theoretically that trade is gainful for both the nations. Let us now show how countries *A* and *B* gain from foreign trade. The gains from trade can be assessed by comparing the barter exchange rate of the two goods in the two countries without and with trade. To begin with, let us suppose that both countries pursue autarky, i.e., the policy of no foreign trade. They produce and consume both goods. Under these conditions, the domestic barter exchange rate will be determined on the basis of their labour cost (see assumptions). The domestic barter exchange rates in the two countries under autarky are given below:

Domestic barter rate in country A

$1X = 30/45 = 0.67Y$ (1 unit of *X* can be exchanged for 0.67 units of *Y*)

$1Y = 45/30 = 1.5X$ (1 unit of *Y* can be exchanged for 1.5 units of *X*)

Domestic barter rate in country B

$1X = 60/50 = 1.2Y$ (1 unit of *X* can be exchanged for 1.2 units of *Y*)

$1Y = 50/60 = 0.83X$ (1 unit of *Y* can be exchanged for 0.83 units of *X*)

Given these barter rates between goods *X* and *Y* in countries *A* and *B*, let us drop the assumption of autarky and assume that there is free trade between the two nations. Under free trade conditions, going by the principle of comparative advantage, country *A* would specialize in commodity *X* and import *Y* from country *B*. Similarly, country *B* would specialize in commodity *Y* and import commodity *X*.

Now, whether the two countries gain from foreign trade depends on whether the external barter rate (EBR), i.e., the terms of trade, is higher or lower than the internal barter rate (IBR). As a rule, if the external barter rate is higher than the internal barter rate for both nations, both of them gain from trade and vice-versa. In simple terms, if $EBR > IBR$, the countries gain from foreign trade. By this criterion, the gains of a country from foreign trade equals the difference between the internal barter rate and external barter rate. That is, gains from trade = $EBR - IBR$. Let us now compare the internal and external barter rates assuming country *A* specializes in commodity *X* and country *B* in commodity *Y*. The internal and external barter rates for both the nations and per unit gains from foreign trade, are given in Table 5.4.

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Table 5.4 *Gains from Foreign Trade*

Country	Internal barter rate (*IBR*)	External barter rate (*EBR*)	Gain from trade*
A	$1X = 0.67Y$	$1X = 1.20Y$	$0.53Y$ per unit of X
B	$1Y = 0.83X$	$1Y = 1.50X$	$0.67X$ per unit of Y

***** Gains from trade = *EBR* – *IBR*.

As Table 5.4 shows, in country *A*'s domestic market, 1*X* is exchanged for 0.67*Y*. However, when country *A* specializes in commodity *X* and exports it to country *B*, it can get 1.20 units of *Y* in exchange. So country *A* gains 1.20*Y*–0.67*Y* = 0.53*Y* per unit of *X*. Similarly, in *B*'s domestic market, 1*Y* is exchange for 0.83*X*. However, when country *B* specializes in *Y* and exports it to country *A*, it gets 1.50*X* in exchange for 1*Y*. So country *B* gains 0.67*X*. This hypothetical example shows how foreign trade, under Ricardo's theory of comparative advantage, benefits the trading nations. The total gain of each country depends on their total export and total import.

Distribution of Gains: Which Country Gains More?

In the preceding section, it has been shown that foreign trade is gainful for both the trading partners—countries *A* and *B*. A question that arises here is: Do both the trading partners gain equally from trade? If not, what determines the distribution of gains from trade between the trading partners?

The distribution of the gains from trade depends on the terms of trade, i.e., the external barter rate. In case of our two-country, two-commodity example, if the terms of trade between countries *A* and *B* is determined exactly on the basis of comparative advantage (as given in Table 5.4), both countries gain equally as per their comparative advantage. For example, if country *A* exports 1*X* for 1.20*Y*, its gain equals *EBR*–*IBR* = 1.20*Y*–0.57*Y* = 0.53 units of *Y* per unit of *X* exported. Similarly, when country *B* exports 1*Y* for 1.50*X*, it gains in terms of 0.67 units of *X* per unit of *Y* exported. Thus, both countries will gain as per their comparative advantage. No country gains at the cost of the other.

However, if the terms and conditions of trade between the two countries are such that the terms of trade are determined differently, one country would gain more and the other country less. For example, for country *A*, the possible gainful range of terms of trade (i.e., external exchange rate) lies between 0.67*Y* and 1.20*Y* for 1*X* and, for country *B*, the gainful terms of trade ranges between 0.83*X* and 1.50*X* for 1*Y*. Given the lower and upper limits of the term of trade, the gains from trade depends on how close the actual barter rate is to the upper limit of the gainful barter rate. For example, if the terms of trade are so fixed that country *A* exports 1*X* for import of 1.20*Y*, and imports 1*Y* for 0.83*X*, it gets the total possible gains from trade. Similarly, if country *B* exports 1*Y* for 1.5*X* and imports 1*X* for 0.63*Y*, then it gets the total possible gains. In this case, both countries enjoy equal gains from trade. However, if the barter exchange rate is fixed differently within the gainful range, the gains from trade get distributed unequally between the countries.

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This discussion takes us to the end of Ricardo's theory of comparative advantage. To sum up, according to Ricardo's theory, a country specializes in the production of commodities in which it has a comparative advantage over other countries and exports its surplus output. In return, it imports those goods in which it has a comparative disadvantage or least comparative advantage. This kind of specialization is gainful to all the trading partners. This leads to the international division of labour.

An Exception to the Law of Comparative Advantage

The Ricardian theory of comparative advantage appears to be theoretically sound. There is, however, one exception to the law of comparative advantage. If one of the two countries, *A* and *B*, has absolute advantage in both products, but their comparative advantage (measured in terms of labour-cost ratios) is the same, then trade between them would not be gainful. For example, recall our labour-cost data given in Table 5.5 with one modification. Say, the labour cost of commodity *Y* changes from 45 man-hours to 25 man-hours. This modified table is reproduced as Table 5.5.

Table 5.5 *Labour Cost (Man-Hours) Per Unit of Output*

Country	Man-hour cost per unit of commodity	
	X	*Y*
A	30	25
B	60	50

Note that the labour-cost ratios for the two goods in both the nations are the same. As shown in the table, in country *A*, the labour cost-ratios for goods *X* and *Y* is 30/25 which is exactly the same as 60/50. The reverse is also true as the labour cost-ratio of 25/30 in *A* = 50/60 in *B*. Under these conditions, trade will not benefit wither country.

Weaknesses of the Comparative Advantage Theory

Although, Ricardo's theory of comparative advantage is theoretically sound and still retains the interest of economists, it has been severely criticized over time for its simplifying assumptions. Ricardo's critics have suggested many improvements, which are briefly mentioned here along with the criticism.

Labour not homogeneous: Ricardo assumed homogeneity of labour, which he considered as an 'approximation of reality.' This is, in fact, unrealistic. Labour is not homogeneous throughout the world. It varies in skill and productivity. Besides, owing to a high degree of specialization, labour is not mobile between occupations. Therefore, wage differentials are quite likely to exist in the short-run, which affect the domestic and external rate of exchange between commodities. Thus, the non-homogeneity of labour limits the relevance and applicability of Ricardo's theory of comparative advantage.

Labour not the only factor of production: Even if one assumes that labour is homogeneous and wages are uniform, labour is not the only factor of production. Capital is another and equally important factor of production. Ricardo's treatment of capital as being either insignificant or being used in fixed proportion to labour is again unrealistic. The factor combination varies from industry to industry, depending on the technology used. Production of some goods may be highly capital-intensive resulting in capital

accounting for a large part of its cost. Under such conditions, the labour theory of comparative advantage would not apply.

Marshall tried to remove this shortcoming by expressing the value of traded commodities in terms of 'bales' (a bundle of goods) which invariably represents the labour and capital in the cost. Another way out has been provided by Haberler through the introduction of the concept of opportunity cost to the theory of trade. According to him, the cost of each commodity should be expressed in terms of loss of production of other commodities. For example, if per worker and per day productivity in India is 10 kg of rice or 20 kg of wheat, then the opportunity cost of 1 kg of rice is 2 kg of wheat and vice versa.

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Demand-side ignored: The theory of comparative advantage concentrates only on the supply side of trade. This means that as long as there is comparative advantage in the production of a good, two countries will trade their products. It also suggests that barter rates of exchange based on comparative advantage would be beneficial to the trading partners. The theory however does not answer the questions: (i) how are the price ratios between trading partners determined? and (ii) what quantities would be traded? Attempts were made by Mill, and then by Edgeworth and Marshall to provide answer to these questions. Mill introduced the concept of reciprocal demand, e.g., the demand by country *A* for the product of country *B* creates demand for the product of country *A*. Later, Edgeworth and Marshall translated the concept of reciprocal demand into offer curves and used them for determining the quantum of trade between the two countries and the prices thereof.

Invalid labour theory of value: The most serious attack on Ricardo's theory of comparative advantage was that it is based on the labour theory of value whose validity is questionable. As mentioned above, goods are produced not by using labour alone, but by a combination of several factors of production, mainly labour and capital. Some industries are highly capital-intensive, e.g., the car industry. The capital content in the production of a car is much larger than the labour content. The value of a car based on its labour content alone would be highly unrealistic. This has a wider implication for the determination of internal or external rates of barter between commodities. For instance, the labour content in car production would be much less than in wheat production. However, this does not mean that a car is cheaper than wheat. For example, suppose 100 man-hours and 10 machine-hours produce 10 quintals of wheat, and 100 man-hours and 100 machine-hours produce one car. If machine-hours used in the car and wheat production are ignored, it will mean 1 car = 10 quintals of wheat. However, this method of obtaining relative prices is absurd. This argument invalidates Ricardo's theory of comparative advantages.

Ricardo had assumed that the prices of commodities would be proportional to the labour time embodied in the commodities, and had argued that the trade pattern would be ultimately governed by the relative share of labour in the traded commodities. Mill and Nassua Sr, however, pointed out later that prices might not be strictly proportional to labour-time and this might affect trade patterns. Mill also argued that it is not labour time but labour productivity that matters.

Cost of transportation ignored: In the real world, transportation cost is an important determinant of internationally traded goods. High transportation costs may not only change the barter terms of trade, but also reverse the trade pattern. This might change the pattern of specialization from the one suggested by Ricardo's theory of comparative advantage without transportation costs. It has been shown empirically, by using distance

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as one of the variables determining trade flows, that transportation costs alter materially the actual trade flows.

Specialization limited by the size of the countries: Graham has demonstrated that complete specialization or international division of labour is not possible in reality, even given the assumptions of the comparative advantage theory. One practical limitation arises from differences in the size of various countries. Some countries are much bigger in size and population than others. This difference introduces differences in their production possibilities, economic performance, and their needs. Such differences limit the possibility of complete specialization in larger and smaller countries. For examples, consider the case of India and Sri Lanka–India exports rice to, and imports coffee from, Sri Lanka. According to the theory of comparative advantage, India would specialize in rice and Sri Lanka in coffee production. However, while it may be possible for India to meet the total rice demand of Sri Lanka, it may not be possible for Sri Lanka to meet India's total demand for coffee. Under these conditions, India will have to allocate a part of her labour force to coffee production. Furthermore, Sri Lanka may not be capable of buying the total exportable surplus of rice from India. This imposes a limitation on India's specialization in rice production. Such cases reject the comparative cost theory of trade.

Nature of goods limits specialization: Another kind of limitation to complete specialization arises from commodities of high and low values. It will be easier for countries producing commodities of high values to specialize in high-value goods, but it is undesirable for countries producing low-value goods to specialize in their production for a long time. Consider the case of developed and developing countries. Most developing countries produce and export primary goods (raw materials, agricultural products, etc.) and import manufactured, high-priced, goods from developed countries. This pattern of specialization and trade seriously injures the long-term economic interest of developing countries. These countries, therefore, gradually adopt the policy of import substitution. This case also negates the comparative cost theory of trade.

CHECK YOUR PROGRESS

1. Define the theory of absolute advantage.
2. State any three disadvantages of the comparative advantage theory.

2.3 TERMS OF TRADE

Let us first look at the concept and types of terms of trade.

Concept and Types of Terms of Trade

Trade between any two countries depends on their respective demand for the product of each other, i.e., on the basis of their reciprocal demand for each other's product. The reciprocal demand determines the terms of trade, i.e., the rate at which two countries exchange their products.

The terms of trade receive considerable attention in the discussion of international economic problems at least for two reasons: (a) the gains from trade depend upon the terms of trade, (b) the developing countries feel that their products have suffered a secular deterioration in their terms of trade as a result of which there has been an unjust

transfer of income (from the poor) to the rich countries who have improved their terms of trade at the expense of the poor countries. Terms of trade are of immense use and significance notwithstanding all the ambiguities obscuring their use. There are several concepts of terms of trade, and the major ones are listed below:

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(a) Gross Barter Terms of Trade

(b) Net Barter or Commodity Terms of Trade

(c) Income Terms of Trade

(d) Single Factorial Terms of Trade

(e) Double Factorial Terms of Trade

(f) Real Cost Terms of Trade

(g) Utility Terms of Trade

The pure theory of trade as expounded by the classical economists tries to show that trade is possible as well as profitable to all trading nations. In Smith's model, each of the two countries must have an absolute advantage in one or the other line of production. In Ricardo's model, it is not necessary for a country to have absolute advantage in any line, it is sufficient if a country had a greater comparative advantage or a lesser comparative disadvantage in one or the other line of production. The great classical achievement was to demonstrate that even under the circumstances where one country was more efficient than the other country in every line of production and the other country was inefficient, international division of labour could increase the world output and economic welfare. The principle of comparative advantage has universal validity. However, there remains one snag *viz.* the validity of the classical analysis and conclusions depend on the assumptions of the labour theory of value. Labour theory of value is not generally accepted as valid at least for two reasons (a) labour is not a homogeneous factor and (b) labour is not the only factor of production. Goods are produced by using some combination of land, labour, capital and entrepreneurship not solely labour.

It is, therefore, necessary to free the comparative advantage theory from the restrictive classical assumption of the labour theory of value. It is possible to discard the labour theory of value as invalid without having to distort the classical conclusion that specialization along the lines of Ricardian comparative advantage would enhance world GNP and economic welfare. Such an attempt was first undertaken by Haberler in 1936, when he developed his theory of opportunity costs. Once comparative advantage is defined in terms of opportunity cost reflecting foregone production of alternative goods, it makes no difference whether commodities are produced by labour alone or by all factors of production combined with labour. Haberler repeatedly emphasized that the sole purpose of the labour theory of value was to determine the opportunity cost of one commodity in terms of the other in each of the two trading nations.

The neo-classical model of international trade has been developed using the concepts of opportunity costs, production-possibility frontiers, and community indifference curves. In this model, labour theory, value is dropped to make room for a more general theory of costs and production. It is an improvement over the classical theory insofar as it frees the classical conclusions from the unnecessarily restrictive assumption regarding the labour theory of value. The chief architects of the neo-classical theory are Haberler, Leontief, Lerner, Marshall, Edgeworth and Meade. Meade has contributed more than any one else by the way of advanced geometric technique to explain neo-classical doctrine of comparative advantage.

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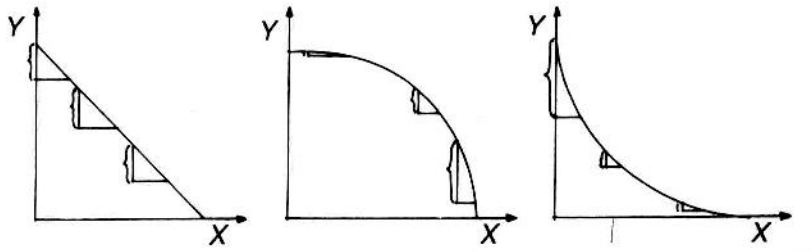
We will study trade equilibrium under various conditions of production and costs i.e., when there are increasing, constant or diminishing returns to scale conditions in production or when the marginal opportunity costs are falling, rising or constant as the scale of production increases. In contrast, however, the classical theory demonstrated one special case only i.e., international trade equilibrium where there are only constant cost or returns to scale conditions in production. We will discuss here a more general model of trade equilibrium.

The neo-classical international trade equilibrium analysis is conducted along all the three possible lines, following the three laws of returns: (a) when there are constant returns to scale in production or when the marginal opportunity costs in production are constant, (b) when there are diminishing returns to scale in the production of all goods or when there are increasing marginal opportunity costs in production, and (c) when there are increasing returns to scale or when there are diminishing marginal opportunity costs in the production of all goods. We shall discuss the three models of trade equilibrium below. However, in the meanwhile, let us have a brief mention regarding what the shape of the production-possibility frontier would be under the three different cost conditions.

When there are constant returns (or costs) in the production of the two goods, the production-possibility frontier will be a straight line; the frontier line will be concave to the origin when there are diminishing returns (or increasing costs) in the production of the two goods; and when there are increasing returns (or diminishing costs) in production, the frontier line will be convex to the origin. See the set of graphs.



5.1A **5.1B** **5.1C**

Fig. 5.1A–5.1C *Constant, Increasing and Diminishing Costs of Production*

In all the three diagrams commodity *X* and *Y* are measured along the horizontal and the vertical axis, respectively. The cost of producing one unit of *X* is the number of units of *Y* that are given up to produce one unit *X*. These are opportunity costs as opposed to money costs of production. In Diagram 5.1A the production frontier is a straight line, and the cost of producing one unit of *X*, expressed in terms of *Y*, remains constant regardless of the quantities of *X* produced. Similarly, the cost of producing one unit of *Y*, expressed in terms of *X*, remains also constant regardless of the level of output of *Y*. This can easily be seen from the graph. Now look at Diagram 5.1B where the transformation curve is non-linear and concave to the origin. In the initial stages, the cost of producing one unit of *X* is small, i.e., only a small amount of *Y* is to be given up. As the production of *X* increases, more and more 'amount of *Y* has to be given up in order to produce one unit of *X*. This shows increasing marginal (opportunity) costs in the production of *X*, as more *X* is produced. The same thing applies to *Y* as well. A concave production frontier line indicates increasing costs or diminishing returns as more of either commodity is produced. Diagram 5.1C has convex production frontier line, and it represents increasing returns or diminishing marginal costs in the production of both X and *Y*. Initially, for example the cost of producing one unit of *X* is a large quantity of *Y* given up; but as you go on increasing the production of *X*, only less and less amount of *Y* need be given

up in order to produce one unit of *X*. The same would apply in the case of *Y* as well. The three graphs represents three production-possibility frontiers corresponding to the three laws of returns *viz.* constant, diminishing and increasing returns to scale in the production of *X* and *Y*.

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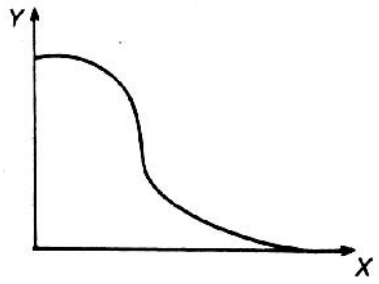

Fig. 5.2 *Transformation Curve*

If one commodity (say *X)* is subject to increasing returns or diminishing costs in production, while the other commodity (say *Y)* is subject to diminishing return or increasing costs in production, then the transformation curve will have a shape like in Figure 5.2.

Let us now proceed to examine international trade equilibrium under the three types of production (cost) conditions.

Trade Equilibrium under Constant Cost Conditions

This is the classical case of Smith-Ricardo type where the marginal opportunity costs are constant and the transformation curve is a linear straight line. See the succeeding graph:

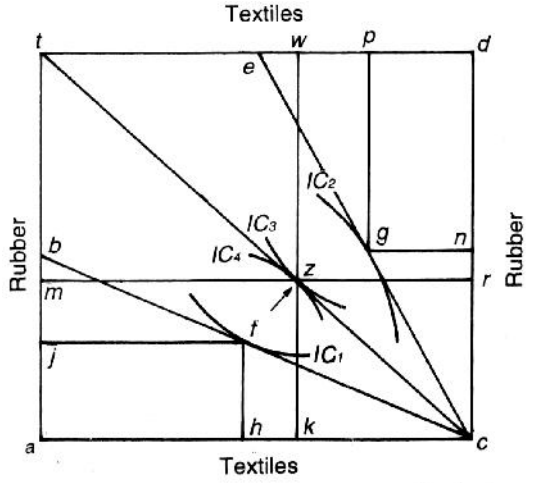

Fig. 5.3 *Model of Constant Costs in Production*

There are two countries, India and Malaysia; and two commodities, textiles and rubber. India's production block is *abc* and its transformation curve is *bc.* India has absolute advantage in textile production; it can produce twice as much textiles as rubber, given its production possibilities. Malaysia's production block is *cde,* and its transformation curve is *ce.* Given the production possibilities, Malaysia can produce twice as much rubber as textiles, it is absolutely efficient in the production of rubber. Marginal opportunity costs in the production of the two commodities in both the countries are constant, which is indicated by the straight line transformation curves.

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In the absence of trade between the two countries, i.e., in isolation, India produces and consumes at point *f*—a combination of *ah* amount of textiles plus *aj* amount of rubber. The level of economic welfare of India's consumers is measured by the indifference curve IC_1, at point *f*. There is full employment (or maximum utilization of all the economic resources in the country) in India, because production is taking place at point *f* which is on the transformation curve of India. The consumption is also taking place at the same point, point *f* where the production is also taking place. In the absence of trade it is not possible for consumption to take place beyond the limits of the production frontier. Similarly, in Malaysia production and consumption take place at point *g* on Malaysia's production frontier; and Malaysia produces and consumes a combination of *dn* amount of rubber plus *dp* amount of textiles. The level of consumers' welfare in Malaysia is indicated by the point (point *g)* on Indifference curve IC_2. In Malaysia also there full employment, and consumption takes place on the transformation curve where production is taking place *(viz.* at point *g)*. At pre-trade equilibrium points of consumption and production (i.e., at point *f* in India and at point *g* in Malaysia), both countries have achieved maximum levels of GNP and highest attainable level of economic welfare. All this is in the absence of trade between the two countries.

Now, let us introduce international trade. This would mean complete specialization in production for both India and Malaysia. India is absolutely efficient in textile production, and Malaysia in rubber production. Complete specialization would mean that India will produce all the textiles it can produce by using all its economic resources exclusively for the production of textiles; and Malaysia would produce all the rubber it can produce by using all its economic resources. In Figure 5.3, production will take place in both the countries at point *c,* after the establishment of trade. India will produce *ac* amount of textiles and Malaysia will produce *cd* amount of rubber. Both the countries have moved along their respective transformation curves from points *f* and *g* to point c, which is a movement towards complete specialization consistent with full employment as well.

Having achieved complete or extreme specialization in production at point c, the two countries are free to trade—as much or as little as they wish—along the international terms of trade line *ct,* which lies exactly in between the two internal cost ratios in India and Malaysia. Note that the transformation line *cb* in India and *ce* in Malaysia represent marginal opportunity cost ratios in the two countries. How much the countries wish to trade with each other or where will consumption actually take place on the international terms of trade line, *ct,* depends on the taste patterns of consumers in the two countries. Given the taste pattern, let us assume that the two countries would like to consume at point *z* on the international terms of trade line. On this basis, we can say the following for the two countries:

(a) India produces *ac* amount of textiles, but consumes only *ak* amount of it, exporting the rest of it *viz. ck* amount of textiles to Malaysia. At the equilibrium terms of trade, India will be able to import *kz* amount of rubber, in exchange for *ck* amount of textile exports to Malaysia. In other words, India produces at point c and consumes at point *z* exporting *ck* quantity of textiles in exchange for *kz* quantity of rubber imports. At point z India has been able to consume more of both the goods (after trade) in comparison with where it was at point *f* (before trade), consuming *ah* amount of textiles plus *aj* amount of rubber. After trade it is able to consume more of textiles *(hk)* and more ofrubber *(mj).*

India, in other words, has been able to move from point *f* on IC_1 to point *z* on IC_3, which is a movement from a point on a lower indifference curve to a point on a higher

indifference curve. Naturally, trade has made the country better off in terms of economic welfare measured by consumer satisfaction.

You can also look at it this way. In the absence of trade it is impossible for India to consume at a point beyond the limits set by the production frontier. In Figure 5.3, note that the consumption, after the establishment of international trade, is actually taking place at point *z* which is outside the transformation curve of India. This means that the establishment of trade will make it possible for a country to attain points of consumption which lie beyond the boundaries of the production frontier. Trade would make something possible which is otherwise impossible. What has made it possible in the case of India, here is the trading triangle *zkc*.

(b) Malaysia produces *dc* amount of rubber, consumes *dr* amount itself and exports the remaining amount of *rc* to India. In exchange, at *ct* terms of international trade, Malaysia imports *dw* amount of textiles from India. After trade, Malaysia consumes *dr* amount of rubber plus *dw* amount of textiles as compared to its pre-trade consumption of *dn* amount of rubber plus *dp* amount of textiles. In other words, by consuming at point *z* on a higher indifference curve *(IC_4)* as compared to point *g* on a lower indifference curve (IC_2), Malaysia is better off in terms of consumer welfare, after trade than before trade. Before trade Malaysia could only attain a consumption point on the transformation curve (i.e., at point g), to consume at a point outside its transformation *curve* (i.e., at point *z*). This means that international trade has made it possible for Malaysia also to consume at a point outside the transformation curve, which is beyond the limits of its production-possibility boundaries.

We, therefore, notice that both the countries are able to consume more of both the goods after trade, as compared to before trade. Both countries are able to consume at a point well beyond the limits of their production frontiers, which is made possible by international trade. This means that the economic welfare in both the countries has gone up because of trade, and this is indicated by the movement of the two countries from their pre-trade indifference curves to post-trade higher indifference curves. The well being of consumers in both the countries, has gone up.

In terms of production, or world GNP, there has been an increase as well. For example, the total world production of textiles before trade was *ah* (contributed by India) plus *dp* (contributed by Malaysia). After trade the world textiles production is equal to *ac* (contributed by India) which exceeds pre-trade production of *ah* plus *dp* amount of textiles. Similarly, the world production of rubber after trade is *dc* (contributed by Malaysia) which is more than the pre-trade world rubber production of *dn* plus *fh* (contributed by Malaysia and India$_t$ respectively).

Thus, both the countries gain in terms of production (or GNP) as well as consumption (or economic welfare) as a result of trade. They both produce at point c and consume at point z and trade at international terms of trade represented by the *ct* line. India's exports of *ck* amount of textiles are equal to Malaysia's imports of *zr* amount of that good; and Malaysia's exports of *cr* amount of rubber are equal to India's imports of *zk* amount of that commodity. The trading triangles for India and Malaysia are *zkc* and *zrc*, respectively. The two counties are better off at post-trade equilibrium as compared to their pre-trade equilibrium.

It is worth noting that if both countries have to share the gains from trade, the international terms of trade line must fall somewhere in between the internal cost ratios of the two countries. In Figure 5.3, this is shown to happen. If the terms of trade line, however, should coincide with the internal cost ratio of India or Malaysia then that

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particular country will fail to secure (consumption) gains from trade. The reader may try it out by himself to see why this will be so.

The model that we have just discussed is one of absolute advantage, where each country has absolute advantage in one of the two lines of production in a symmetrical pattern. Additionally, the two countries—India and Malaysia—are shown to be of equal size, and international trade terms are shown to lie exactly mid-way between the internal cost ratios of the two countries. It is also possible to relax these conditions and still show trade equilibrium under constant cost (or returns to scale) conditions in the production of the two goods in the two countries.

Trade Equilibrium under Increasing Cost Conditions

When the marginal opportunity costs are increasing in the production of the two goods in the two countries, we will have concave-shaped transformation curves in the two countries. The other way of saying the same thing is that when the transformation curves are concave-shaped, there must be diminishing returns to scale in the production of the two goods in the country. We again assume that there are only two countries in the world—India and Malaysia, producing two commodities under increasing cost (or diminishing returns) conditions. We will also assume that the two countries are of equal size, and that each country is efficient in one line of production, but not the same line as the other country. This is to ensure trade complementarity or compatibility. Figure 5.4 represents this case.

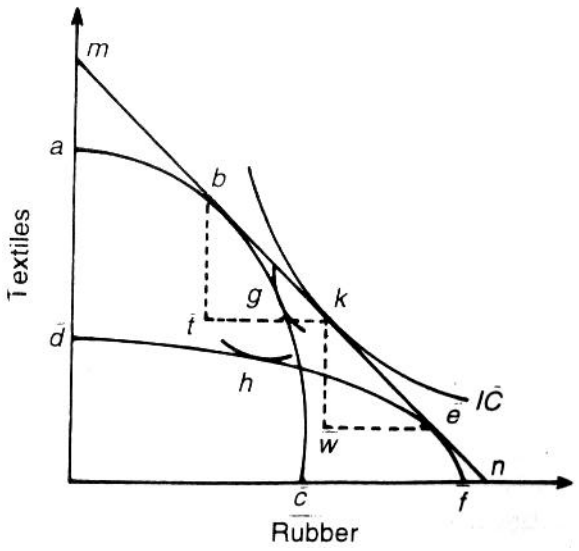

Fig. 5.4 *Model of Increasing Costs in Production*

India's transformation curve is *abc*, and Malaysia's is *def.* The two production blocks clearly show that India's production possibilities are greater in textile production and Malaysia's in rubber production. Pre-trade equilibrium in the two countries are at points *g* and *h* on the respective transformation curves of India and Malaysia. Both production and consumption take place at point *g* in India, and at point *h* in Malaysia. There is full employment and maximum production in both countries, since the two points *(g* and *h)* are on the production boundaries of India and Malaysia.

The tangents at points *g* and *h* represent the relative prices of textiles and rubber in the two countries. They reflect the internal cost ratios in the production of the two goods in the respective countries. Note that the slopes of these tangents are not identical;

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the tangent is steeper in the case of India reflecting relatively higher unit costs in the production of rubber and lower unit costs in the production of textiles; the tangent is flatter in the case of Malaysia, which indicates the fact that the cost of producing one unit of rubber is lower than the cost of producing one unit of textiles. The differences in relative costs of producing the two goods in the two countries indicate the differences in the productive efficiency of India and Malaysia in the production of textiles and rubber. Dictated by these cost advantages, India should specialize in the production (and exports) of textiles and Malaysia should do likewise in respect of rubber.

The international terms of trade line, *mn*, is drawn in Figure 5.4 in such a way that it is tangent to the transformation curves of India and Malaysia at points *b* and *e* respectively. This indicates production shifts in India and Malaysia in response to the international prices on textiles and rubber. More specifically we can say that (a) in India, the point of production shifts from point *g* to point *b*, which, represents a movement towards greater specialization (but, by no means, complete specialization) in the production of textiles. Resources will shift away from rubber production and go into textile production resulting in a more rational reallocation of the economic resources between textiles and rubber. Such reallocation of resources will lead to a higher production of textiles and a lower production of rubber in India. In Figure 5.4 compare post-trade production equilibrium point, *b*, with the pre-trade, production equilibrium point, *g*, and you will notice how the production shift has taken place in India. Needless to say that, after trade, more textiles are produced by withdrawing resources away from rubber production. The kind of a shift in production in India is consistent with what one can expect, *viz.* greater absolute (or comparative) advantage; (b) in Malaysia the point of production shifts from point *h* (pre-trade) to point *e* (after trade). Such a movement again reflects a greater degree of specialization (but, by no means, complete especilization) in the production of rubber. In the case of Malaysia also the production shifts which respond to new international price relationships, lead to a more rational reallocation of the country's resources between textiles and rubber. Resources will be withdrawn from the textile industry and put into use in the rubber industry. This will lead to an increase in rubber production at the cost of textile production, and this is reflected in the production transformation along Malaysia's production frontier line, in the shift from point *h* to point *e*.

All this clearly demonstrates that international trade has changed the relative phases of rubber and textiles on the international market, leading to a more rational re-allocation of world resources in the two countries in respect of the two commodities. The result is one of greater degree of specialization but, by no means complete specialization in the two commodities by the two countries. It is important to note here that complete specialization is possible when there are constant returns to scale in production (or when the marginal opportunity costs are constant). Specialization can go to the extremes under those cost conditions. However, when there are diminishing returns to scale (or increasing marginal cost) conditions in production, we can expect only greater degree of specialization. Complete specialization is ruled out under increasing cost conditions. Complete or extreme specialization carried out under increasing cost conditions will only make the country worse off in terms of economic well being. Incomplete specialization, as we see in Figure 5.4, would maximize the level of economic welfare of the two countries.

India produces, after trade, a combination of textiles and rubber at point *b.* She exports *bt* amount of textiles and imports *tk* amount of rubber at *mn* terms of trade. This means that India produces at point *b* and consumes at point *k.* The country is clearly

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better off after trade, because point *k* is on a higher indifference curve compared to point *g* (pre-trade level) which is on a lower indifference curve. Note also that before trade, India could only consume at a point *on* the transformation curve (*viz.* point *g),* but trade has made it possible for India to consume at a point outside the limits of the transformation curve (*viz.* point *k*). The trading triangle *btk* has enabled India to attain a level of consumption at point *k,* which is outside the transformation curve. Without trade this would be impossible.

Similarly, Malaysia also is able to consume at a point outside its transformation curve, after trade. Malaysia produces at point *e,* but consumes at point *k.* This is made possible because Malaysia exports *ew* amount of rubber and imports *kw* amount of textiles in exchange, at the same *mn* terms of international trade. Note that Malaysia's post-trade consumption equilibrium point at *k* represents a higher level of satisfaction compared to its pre-trade consumption at point *h* on the transformation curve. Therefore, Malaysia is also able to reach a point of consumption outside the limits of its production frontier, due to international trade.

In the post-trade equilibrium situation, India's exports of textiles amounting to *bt* are equal to Malaysia's imports of that commodity amounting to *kw;* and India's imports of *tk* amount of rubber-are equal to Malaysia's exports of rubber amounting to *ew.* After trade there have been two results: (a) both countries have attained new production levels involving greater degrees of specialization in commodity production consistent with their comparative advantage positions; and (b) both countries are able to achieve consumption levels at points which lie outside their respective transformation curves. In other words, both countries have become better off after trade and because of trade.

Now, a word about incomplete specialization. You will recall that under constant cost (or returns to scale) conditions complete specialization in production is possible and optimal. However, in the case of increasing cost (or diminishing returns to scale) conditions in production, only incomplete specialization (i.e., greater degree of specialization) is optimal. This does not mean that under increasing cost conditions complete specialization is impossible. What it does, however, mean is that complete specialization is sub-optimal under increasing cost conditions.

At *mn* terms of trade, India and Malaysia, produce at points *b* and *e* on their respective transformation curves; they both consume at point *k* which is outside the two countries' production frontier lines; there has only been incomplete specialization not a complete specialization. This is not to argue that complete specialization is impossible under increasing cost conditions. Complete specialization is possible. For example, let us shift the terms of trade line *mn* and draw a line such as *ad,* which is parallel to *mn.* Since, the two lines *mn* and *ad* are parallel to each other they guarantee that the terms of trade are unchanged. When we have *ab* terms of trade (which are identical with *mn* terms of trade) complete specialization in production would result in both countries. India produces at point *a* on its transformation curve, where it produces only textiles and no rubber at all. Malaysia produces at point *b* on her own transformation curve—She produces only rubber and no textiles at all.

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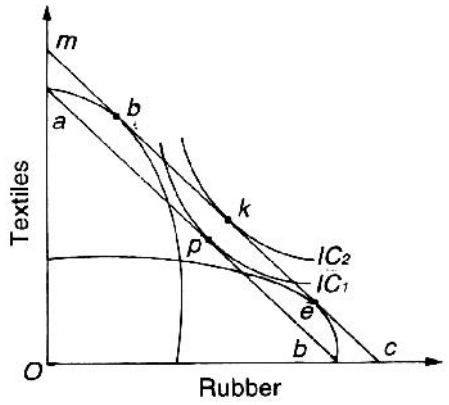

Fig. 5.5 *Complete Specilization under Increasing Cost Conditions*

Having achieved complete specialization in textiles and rubber production, the two countries are free to trade along the terms of trade line *ad.* Let us say that they both consume at point *p* (or any other point on the *ad* line). Point *p,* no doubt, is outside the two countries transformation curves; and to that extent it is superior to zero-trade situation. However, even though, point *p* represents a higher level of economic welfare than would be under zero-trade situation, it is inferior to point *k.* Because point *k* is on a higher indifference curve compared to point *p* which is on a lower indifference curve. It would therefore be in the interests of both the countries to move from point *p* to point *k,* and this can be accomplished only by moving from a situation of complete specialization to a situation of incomplete specialization in production.

In brief, it is true that both countries can go in for either complete or incomplete specialization under increasing cost conditions in production, but only one of them guarantees highest level of economic welfare. And that is a situation of incomplete specialization. In that sense, incomplete specialization is possible as well as optimal, whereas complete specialization is possible, but not optimal from the point of view of economic welfare to be obtained from international trade.

Trade Equilibrium under Decreasing Cost Conditions

We have discussed the cases of constant and increasing costs and the corresponding trade equilibrium conditions under those cost situations. It is logical to expect some discussion of the only other possible case, that of decreasing opportunity costs or increasing returns to scale conditions in production. Two things need to be stated regarding this model: First, this case, while methodologically respectable and necessary to complete the possibilities of cost behaviour, is suspect on other grounds. We have been discussing all along assuming perfect competition; and perfect competition, in its turn, rules out the existence of decreasing opportunity costs (or increasing returns to scale in production). If increasing returns are internal to the firm, then there cannot be perfect competition, for such a condition assumes that the firms in an industry are all of optimum size and have, therefore, no internal economies. There might, alternately, be external economies to be derived but these are not thought to be extensive under perfect competition. If we drop the assumption of perfect competition then, of course, the picture changes. Firms may be large in size but small in number. The internal economies to be derived from further increases in their size may be considerable. A whole new prospect of increasing returns is then opened up. There is a great incentive to relax the assumption of perfect competition and to discuss the implications of decreasing opportunity costs. Because the industrial products which have entered international markets are produced by imperfectly

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competitive industries in the major countries like the USA, UK, Japan and the countries of Western Europe, and their industrial products are conditioned overwhelmingly by the size, efficiency, high productivity due to technological advances, and so forth. Therefore, decreasing opportunity costs may fall outside the purview of trade models based on perfect competition, but there can be hardly any doubt that in the real trading world they exist in many forms. This is a strong justification for including a brief discussion of trade equilibrium based on decreasing costs.

Secondly, it is not necessary (or easy) to demonstrate this model by using our standard model of 'two-countries and two-commodities'. We will, therefore, discuss this model with the help of 'one-country two-commodities' model. Let us therefore assume that we have our home country in a world economy, where the home country is capable of producing both the goods—textiles and rubber. We will examine trade equilibrium for the home country under three possible situations as follows:

- When there are increasing returns (or decreasing cost conditions) in the production of both the goods;
- When there are strong increasing returns in one line of production (say, rubber production) but diminishing returns or increasing cost conditions in the other line of production (say, textile production); and
- When there are mild increasing returns in one line of production (rubber), but diminishing returns in the other line of production (textiles).

The above three are only a few out of a number of possible cases of decreasing opportunity costs. Several other cases can be distinguished as well, but for the sake of demonstrating the three cases would do to illustrate. We shall now discuss the three cases in some detail below:

(i) Trade equilibrium when there are increasing returns in both lines of production. In Figure 5.6 the production possibility curve is convex to the origin, signifying that there are increasing returns to scale in both the lines of production.

The production-possibility curve is *abc*. Before trade, production and consumption are taking place at point *b* where the internal price ratio line *pp* is tangent to the production-possibility curve. This means that the country is producing and consuming *Od* amount of textiles and *Of* amount of rubber in pre-trade equilibrium position. This will be a stable situation only when the country is in isolation, because the country has to produce both the goods if its consumers wish to consume some combination of both the goods.

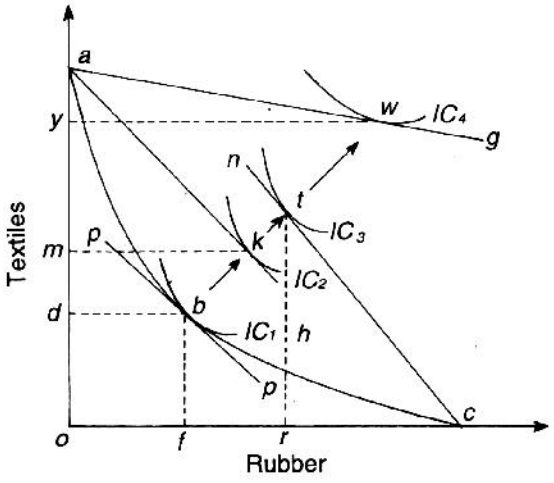

***Fig. 5.6** Increasing Returns in both the Goods*

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However, as soon as trade is opened up, this position of equilibrium at point *b* cannot be maintained, regardless of whether international terms of trade differ or coincide with the pre-trade internal price ratios in the country. If international terms coincide with the pre-trade internal term, then factors of production will continue to switch to textile production until equilibrium output settles at point *a* with complete specialization in textiles production. International terms of trade line, *ah,* is drawn parallel to internal terms of trade line, *pp,* to show that the two price-ratios are identical and international trade has not altered relative prices of textiles and rubber. Even then, production has shifted from point *b* to point *a,* where the country is producing *oa* amount of textiles and zero amount of rubber. Out of *oa* amount of textiles produced, *om* amount is consumed domestically and the remaining quantity of rubber amounting to *am* is exported to the rest of the world. At international terms equal to *ah,* the home country will import *mn* amount of rubber in exchange for *am* amount of textile exports. The post-trade consumption equilibrium is at point *k,* with point *a* as the production point and *amk* as the trading triangle. Notice that after the establishment of trade relationship, the home country's consumers have moved from point *b* (on the transformation curve) to point *k* (beyond the transformation curve), or from a lower to a higher community indifference curve in Figure 5.6. The country has clearly become better of with trade, as compared to without trade, in terms of consumer welfare. Note also that all this has taken place without the changes in relative prices of the two goods after the establishment of trade. There has been complete specialization in textiles after trade, and the consumers in the home country are able to consume more of both the goods at point *k* as compared to point *b*.

From the economic welfare point of view, there is no doubt that point *k* is superior to point *b*. However, as a matter of fact there is another possibility which is even superior to point *k,* and let us now entertain what that possibility could be.

The careful reader would have already suspected that at the same *pp* terms, it would be most profitable for the home country to divert all resources into rubber production rather than textile production. The line *pp* is relatively steeper (and so is the *ah* line) which suggests that it is more profitable to specialize in rubber rather than textile production, since there are increasing returns conditions in both the goods' production. Draw now a line such as *cn,* parallel to the lines *pp* or *ah.* Immediately, we can locate point *c* as the post-trade equilibrium production point with complete specialization in rubber. It would be better for the home country—and in fact best—to produce at point *c,* an amount of rubber equal to *oc;* at home country can retain or amount of rubber for its own consumption and export the remaining *rc* amount to the rest of the world. At *nc* terms of international trade, the home country can import *rt* amount of textiles in exchange for *rc* amount to the rest of the world. At *nc* terms of international trade, the home country can import *rt* amount of textiles in exchange for *rc* amount of rubber exports. The consumption equilibrium point, point *t,* which corresponds to the production equilibrium point, point *c,* guarantees higher level of economic welfare than point *k* or point *b*. Because, at point *t,* which is on a higher indifference curve, the consumers in the home country are able to consume more of both the goods than at either point *k* or point *b*.

It is, therefore, best for the home country to produce at point *c* and consume at point *t.* This ensures maximum economic well-being resulting from trade. This would then be the post-trade equilibrium point when, as in Figure 5.6, there are

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increasing returns in both the goods and relative prices favouring rubber rather than textiles in both pre-and post-trade situations.

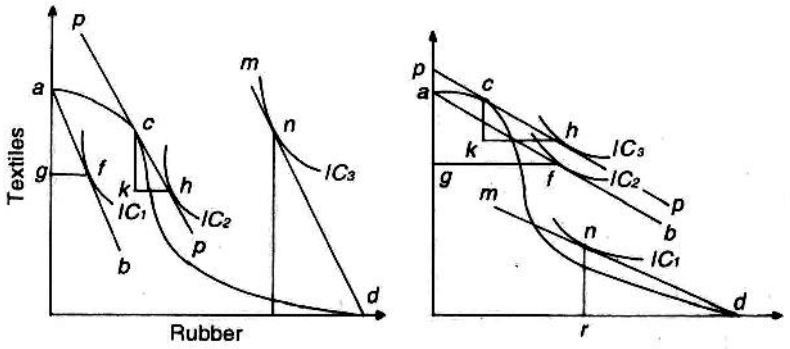
The picture would however change completely, if the international terms of trade should alter the relative price ratios of the two commodities that existed before the trade opened up between the home country and the rest of the world. The pre-trade price-ratio line was *pp* (which is relatively steeper) indicating prices which were more favourable for rubber rather than textiles. Suppose, for example, that after the opening of trade, the international terms of trade line was *ag* which is flatter than the pre-trade price ratic line, *pp*. The flatter *ag* line suggests that the world price ratios are such that they favour textile rather than rubber production. In that event, it would be better for the home country to produce all the textiles it can. The home country could produce, therefore, *oa* amount of textiles; export *av* amount of textiles in exchange for *vw* amount of rubber imports at *ag* terms of trade. The country would then consume at point *w*, which consists of more of both the goods as compared to any other previous points (such as *t* or *k* or *b*). The production and consumption equilibrium points would be *a* and *w* respectively. The trading triangle would be *avw*. The country has attained the highest level of economic welfare in terms of consumer satisfaction. This, then, would be the trade equilibrium position corresponding to *ag* terms of trade which are at variance with pre-trade internal terms of trade represented by *pp* line.

In this particular case study, all we need to know is the returns to scale conditions in the production of the two goods in the home country, and they are both of the increasing returns pattern. We need not worry about the returns to scale conditions in the rest of the world or the foreign countries with which the home country has trading prospects. The nature of the relationship between the international terms of trade (that affect home country after it establishes trade links with the outside world) and the internal terms of trade (that existed prior to the trade establishment) only determine the area of commodity specialization, i.e., whether the home country would profit by specializing completely in rubber or textile production. International terms of trade ratios would dictate that answer for the home country, given the initial pre-trade domestic price ratios which existed in the home country before trade.

(ii) Trade equilibrium when there are strong increasing returns in one line of production but diminishing returns in the other. Let us assume now that rubber is produced under strong increasing returns and textiles are produced under diminishing returns to scale conditions in production. This is represented in the succeeding Figure.

In both the diagrams Figure 5.7A-B, the production possibility curve of the home country is identical in-so-far as there are strong increasing return (or decreasing opportunity costs) in the production of rubber and diminishing returns (or increasing opportunity costs) in the production of textiles. The difference between the two Figure, however, lies in the fact that in Figure 5.7A the terms of trade line is steeper compared to the terms of trade line in Figure 5.7B. The steeper terms of trade line (in Figure 5.7A) implies that rubber has a relative higher price per unit than textiles, i.e., the world prices of rubber and textiles are such that they favour rubber production and exports; the relatively flatter terms of trade line (in Figure 5.7B), on the other hand, suggests textile prices are higher than rubber price on the international market, i.e., the world prices favour production and exports of

textiles as against rubber. There are several possibilities which we will examine as follows:



5.7A **5.7B**

Fig. 5.7A–B *Increasing Returns in Rubber but Diminishing Returns in Textiles*

In Figure 5.7A, the home country could go in for complete specialization in textiles production. The production could, then, take place at point a where the terms of trade line, *ab*, meets the transformation curve, *acd.* This is clearly not in the best interests of the country because consumers in the home country are forced to consume at a point inside the transformation curve, such as at point *f.* Producing at point *a* and consuming at point *f*, the country is exporting *ag* amount of textiles and importing *gf* amount of rubber at *ab* terms of international trade. Such a situation is unambiguously inferior. Returns to scale conditions being of a diminishing pattern, do not favour complete specialization' of production in textiles. Additionally, the international terms of trade also do not favour production and exports oftextiles.

The next best thing, therefore, is to go in for incomplete specialization i.e., to produce at point *c* where the international terms of trade line *pp* (which is parallel to *ab)* is tangent to the production possibility curve. The country could produce at point *c* and consume at point *h,* exporting *ck* amount of textiles and importing *kh* amount of rubber at *pp* terms of trade. Point *h* is clearly superior to point *f,* as it places the consumers on a higher indifference curve; point *h* is outside the transformation curve as against point *f* which is inside that curve. Therefore, from the standpoint of economic welfare, incomplete specialization is superior to complete specialization in textiles.

There is a third, alternative possibility for the home country *viz.* complete specialization in rubber. The country can produce at point *d* where the terms of trade line *md* (which is parallel to *pp* and *ab)* meets the production-possibility curve. It is possible for the home country to consume at a point such as *n* on the *md* line, where the country exports *dr* quantity of rubber and imports *rn* quantity of textiles at *md* terms of trade. The consumption point *n* is clearly superior because the consumers have now reached a higher indifference curve compared to the previous two situations. Note also that when production and consumption are taking place at point *b* and *c* respectively, the home country exports a relatively smaller quantity of its own product (rubber) and imports a relatively larger quantity of the foreign product (textiles). This is also the most preferred trade equilibrium situation because rubber is the most favourably placed commodity both in terms of domestic production possibilities (where there are strong increasing returns to

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scale conditions) and world demand and price situations (where the international terms of trade are more favourable to rubber). Of the three alternatives available to the country *(viz.* compete specialization in textiles, incomplete specialization, and complete specialization in rubber) the one which contributes the maximum economic welfare is the third alternative *(viz.* complete specialization in rubber). That, then, is the trade equilibrium point in a situation shown in Figure 5.7A.

In Figure 5.7B, however, the picture is altogether different. Here, as in Figure 5.7A, the three alternatives are open to the home country. First, the country can go in for complete specialization in textiles, producing at point *a,* consuming at point *f,* and exporting *ag* amount of textiles in exchange for *gf* amount of rubber imports at *ab* terms of trade. The consumers' economic welfare is represented by point *f,* which is of course outside the transformation curve. Second alternative is to produce at point *c* and consume at point *h.* This is a case of incomplete specialization in production. In this case, the home country exports *ck* amount of textiles and imports *kh* amount of rubber at *pp* terms of trade (which are the same as *ab* terms of trade since *ab* line is parallel to *pp* line). Point *h* guarantees higher level of economic welfare as compared to point *f* which corresponds to complete specialization in textiles, because it constitutes a movement from a lower indifference curve IC_2 to a higher one (IC_3).

Incomplete specialization, in fact, guarantees the highest level of economic welfare in a situation portrayed in Figure 5.7B. Consider now the third alternative available in this diagram, which is one of going in for complete specialization in rubber. The country could produce at point *d* where the terms of trade line *md* (which is parallel to *pp* and *ab*) meets the production possibility curve. Having produced at point *d,* the country can then consume at point *n,* exporting *rd* amount of rubber for *nr* amount of textile imports at *md* terms of trade. Point *n,* which corresponds to a situation of complete specialization in rubber production, is clearly inferior to both point *h* and point *f* which correspond to the previous two alternative situations. It makes no sense to go in for complete specialization in rubber, even though their are strong increasing returns to scale production possibilities in that commodity. Because, the international terms of trade are very unfavourable to rubber. World demand and price conditions for rubber are so adverse to rubber (relative to textiles) that the home country has to export a relatively larger quantity of rubber in order to import a relatively smaller quantity of textiles. Unfavorable world demand conditions for rubber would, therefore, discourage any attempt on the part of the country to achieve specialization in rubber production although the country may enjoy extremely favourable production possibilities, in that particularline of production.

(iii) Trade equilibrium when there are mild increasing returns in one line of production but diminishing returns in the other. Let us assume that there are mild increasing returns in rubber production and diminishing returns in textiles. This will give us a production possibility line for the country as shown in the following diagrams:

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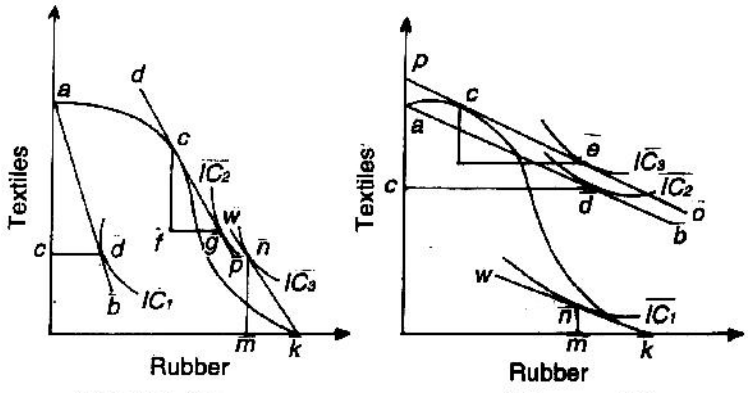

5.8A **5.8B**

Fig. 5.8A-B *Increasing Returns in Rubber and Diminishing Returns in Textiles*

In both the Figures above the shape of the production block is the same–concave at first and then convex later on as we move towards rubber axis. The difference between the two diagrams lies in the fact that in Figure 5.8A, the international terms of trade line is steeper (suggesting that world demand and world price situations favour rubber as against textiles): and in Figure 5.8B we have a flatter terms of trade line (suggesting that the more favoured export commodity is textiles rather than rubber).

In Figure 5.8A, complete specialization in textiles is the worst in terms of economic welfare. The country would in that situation, produce at point *a,* consume at point *d* and exports *ac* quantity of textiles or *cde* quantity of rubber imports at *ab* terms of trade. Consumption point *c* is clearly inferior as it lies inside the transformation curve. Incomplete specialization results in a situation where production and consumption will take place at points *e* and *g* respectively; the trading triangle is *efg* and the terms of trade *is pp,* which is parallel to *ab* line. Consumption point *g* is superior to point *d* because it is on a higher indifference curve and at a point which is outside the transformation curve. The third alternative would be to go in for complete specialization in rubber where production takes place at point *k* and consumption at point *n.* Note that point *n* lies on a still higher indifference curve *(IC_3)* compared to point *n* which lies on *IC_2,* a lower indifference curve. This leads us to conclude that given the production possibilities in the country and world demand and price situation outside the country, as we have in Figure 5.8A, it is in the best interests of the country to produce at point *k* and consume at some point on *kw* terms of trade line (such as point *n)* and achieve maximum welfare from trade. Everything depends on the relative world prices of rubber and textiles. If, for instance, the terms of trade line *pp* were such that when it is extended it will meet point *k,* then it is immaterial whether production takes place at point e (incomplete specialization) or at point*k* (complete specialization in rubber); because in either case the country can select a consumption point on *the pp* line which connects points *e* and *k.* The difference would be only in terms of the composition of trade, i.e., what commodity will be exported and imported by the country. To produce at point *e* and consume at some point on *pp* line which is to the right of point e would mean exporting textiles and importing rubber; and to producing at point *k* and consuming at some point on the *pp* line which is to the left of point *k,* would mean exporting rubber and importing textiles. For economic welfare as such it would make no difference whether you opt for complete specialization in

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rubber or incomplete specialization, as long as the same *pp* terms of trade line is connecting points such as *e* and *k* in Figure 5.8B (which is not shown in the Fiure).

In Figure 5.8B, on the other hand, we have a different picture. Terms of trade favour production and exports of textiles, since the terms of trade lines are flatter (compared to what they are in Figure 5.8A). The three lines—*ab, pp* and *wk*—are all parallel indicating same terms of trade in all three situations. In situation one, of complete specialization in textiles, the country produces at point *a* and consumes at point *d*. In situation two, with incomplete specialization, production and consumption take place at points *c* and *e* respectively. In situation three, with complete specialization in rubber, the equilibrium production and consumption points are at *k* and *n* respectively. Needless to say that situation there is the worst in terms of economic welfare; situation one is intermediate; and situation two with incomplete specialization maximizes the economic welfare of the country through trade.

To sum up, therefore, with a given production possibility curve and a given terms of trade line—representing domestic supply and foreign demand conditions for the two products—we can also determine a trade equilibrium position for a Country, i.e., the points of production and consumption equilibrium which maximize the level of economic welfare of the country. The neo-classical technique of using production possibility curves has proved to be a useful device for an analysis of trade equilibrium. The framework is neo-classical, but the theme or substance is classical. The message throughout the discussion is that some trade is better than no trade regardless of the countries production possibility pattern or the world demand and price pattern for goods and services. Trade is unequivocally welfare promoting, provided of course there is free trade among nations.

Check Your Progress

3. What will be the shape of the transformation curve, if the marginal opportunity costs are increasing in the production of the two goods in the two countries?
4. Give reasons for the non-acceptance of the labour theory.

2.4 BALANCE OF PAYMENTS AND BALANCEOF TRADE

This section describes the concept and nature of balance of payment and balance of trade.

Balance of Payments

There is no country which is self-sufficient and this interdependence of countries is reflected in international economic and commercial transactions. An economic transaction is an exchange of value or transfer of a title to goods or assets. Commercial transaction are an exchange of goods or services, for money which will result in payments, in currency or monetary assets leading to a financial flow. The resource flows from one country to another due to purchase and sale of financial claims, referred to as a financial

transaction. The international exchange of goods for goods, for services or goods and services for money are all referred to as international economic and commercial transactions.

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Balance of payments (BOP) of a country has been defined as a systematic record of all economic transactions between the residents of the reporting country and residents of foreign countries. Thus, balance of payments includes both visible and invisible transactions.

The items usually included in balance of payments of any country are payments for merchandise imports and receipts for merchandise exports, loans to and investments in foreign countries and enterprises, foreign investments in domestic enterprises, borrowing from foreign countries, tourist expenditures—both by domestic tourists abroad and foreign countries, tourist expending country, money paid to foreign carriers and receipts for foreign goods carried in national bottoms, cable and telegraph payments to foreign banks, expenses on foreign embassies established in the home country, interest and dividend payments and similar items. The two sides of a balance of payment must always be balanced, i.e., payments to be made to outsiders must equal the receipts from outsiders and the main reason for this balance is because of the simple fact that for everything one gets, he can expect to receive something in return. Ordinarily, balance of payments is prepared for a period of one year, but creation of balance of payments quarterly is also common.

The balance of payments is a complete tabulation of the total market value of goods, services, and financial assets that domestic residents, firms, and governments exchange with residents of other nations during a given period. Like gross domestic product, a nation's balance of payment is a system that accounts for flow of income and expenditures. Unlike gross domestic product, however, the balance of payments includes the flow of financial assets.

The balance of payments is a summary statement in which, all the transactions of the residents of a nation with the residents of all other nations are recorded during a particular period of time, usually a calendar year. The United States and some other nations also keep such a record on a quarterly basis. The main purpose of the balance of payment is to inform the government of the international position of the nation and to help it in its formulation of monetary, fiscal, and trade policies. Governments also regularly consult the balance of payments of important trade partners in making policy decisions. The information contained in a nation's balance of payment is also indispensable to banks, firms, and individuals directly or indirectly involved in international trade and finance.

Monetary authorities of the reporting country should know the receipts and payments as between the reporting country and others so as to assess the impact of such flows on domestic money supply and on the savings of the economy. Besides, economists would like to study from these data the impact of foreign transactions on national income of the reporting country – their impact on current income and expenditure (current account) and on assets and liabilities of the country (capital side).

The monetary and fiscal policies and foreign exchange policy would be formulated or reformulated on the basis of these data. It would thus, be observed that the balance of payments data are useful from the point of view of formulation and operation of the domestic economic policy.

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Balance of payments is the systematic summary of the economic transaction of the residence of a country with the rest of the world during a specified time period, normally a year. The following are the features of balance of payments:

1. Economic transactions

The statement is a summary of economic transactions of the country with the outsiders. An economic transaction arises when values are exchanged or moved between nations. These may arise from the following:

- Movement of goods in the form of exports and imports
- Rendering of services abroad and using foreign services
- Gifts/grants from one country to another
- Investments made abroad or received from abroad
- Income on investments received from abroad or remitted abroad
- Increase or decrease in the international reserves of the country

2. Residents with non-residents

Generally, transactions which take place between the residents of the country with residents of other countries are recorded in the balance of payments. Residents may mean the individuals, institutions, corporate bodies and government departments who are a part of the country. Units or branches of multinational companies domiciled in the country are also residents and their transactions with their parent or branches abroad are also reflected in the balance of payments. If the economic transaction is between residents only, it is not included in the balance of payments. For instance, sale of gold in the domestic market will not find a place in the balance of payments. There are, however, certain exceptions such as the Central bank of the country and thus, the monetary gold of the country increases, which would be reflected in the balance of payments. Similarly, foreign assets exchanged between residents may also be included in the balance of payments account.

3. A flow statement

A balance of payments is a compilation of the flow of economic transactions of the country during the period and not a statement of the position as on a date. It is more like a funds flow of a company, rather than a balance sheet. For instance, if the balance of payments shows $ 400 million as plus in non-resident deposits, it means the balances held by the non-residents of the country with banks in India has changed during the period by $ 400 million; it does not mean the aggregate of such balances is $ 400 million.

4. Periodicity

Normally, balance of payments statement is prepared covering a period of one year. However, depending upon the requirement of the government, the statement may be prepared for shorter periods such as for a tenure of six months or in some cases, it is even made for a month.

5. Components of balance of payments

The balance of payments statement is presented with three major components:

- Current account

- Capital account
- Official reserves account

Earlier balance of payments used to be divided into two accounts—current account and capital account. The present trend is to divide the capital account further into two accounts and sow separately the details of official reserves account.

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To draw an analogy with the final accounts of a business entity, the current account is similar to the profit and loss account which shows the income and expenses of the entity during a year. The capital account (including the official reserve account) is the balance sheet, or to be more precise, the funds flow statement, the first part showing the changes in the assets and liabilities of the entity and the second part revealing changes in its equality.

6. Current account

The current account of the balance of payments refers to transactions in goods and services, income and current transfers. In other words, it covers all transactions between residents and non-residents, other than financial items.

7. Merchandise trade

Merchandise, represents exports and import of commodities from/into India. The credit in the item represents exports and debit represents imports. The net balance, being the difference between exports and imports is known as the balance of trade.

The values of exports are shown at FOB prices, i.e., excluding the cost of transportation from abroad. Imports represent CIF payment, i.e., including freight and insurance paid for imports. However, where freight and insurance on imports are paid separately to foreigners, these are included under transportation and insurance.

8. Invisible

This item includes service, transfers and investment income. It is titled invisible to distinguish from merchandise trade and is also known as visible trade.

Travel covers all receipts and payments on account of international transportation services except for the freight on imports invoiced CIF/CFR included under import payments. The credits include expenses of foreign transport companies in India, receipt of foreign earnings of Indian transport companies and other receipts. The debits include expenses of Indian companies abroad and payments to foreign transport companies.

Government, not included elsewhere, relates to receipts and payments on government account not included elsewhere as well as receipts and payments on account of maintenance of embassies and diplomatic mission and offices of international institutions such as UNO, WHO and so on. Credits include allocations made for the US embassy expenditure in India out of the rupee proceeds of sales in India of US surplus agricultural commodities under PL 480 agreement.

Miscellaneous items cover receipts and payments in respect of all other services such as agency services, technicians, and professional services, technical know-how, royalties, subscriptions for periodicals and so on.

Transfer payments or unilateral transfers represent all receipts and payments without a *quid pro quo*. They include items like aid and grants received from/extended to foreign governments, migrant's transfer, repatriation of savings, remittances for family

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maintenance, contributions and donations to religious organizations and charitable institution.

Investment income relates to remittances, receipts and payments on account of profits, dividends, interest and discounts including interest charges and commitment charges on foreign loans including those on purchase from the International Monetary Fund.

Balance on current account: The important decision is not to take into consideration the absolute figures of exports/receipts and imports/payments, but their difference which shows whether the country has earned or lost foreign exchange. Two important measures in this regard are as follows:

- Balance of trade
- Balance of payments

Balance of trade refers to the net difference between the value of export and import of merchandise or the visible trade. When the aggregate exports of goods from the country during the period exceed its aggregate import, the balance of trade is said to be favourable, however, in case the imports exceed exports, the balance of trade is termed as unfavourable. Since, imports and exports of a country seldom are equal, the balance of trade will not be balanced. During any given period, the balance of trade will show either a favourable or an unfavourable balance.

Balance of payments includes the foreign trade in its broad sense and includes not only visible trade but invisible items also. Thus, this term is more comprehensive than balance of trade. In other words, balance of payments represents balance of trade plus balance on invisibles. It would be more appropriate to call this balance of payments on current account as it includes the net balance of all items included in the current account. As in the case of balance of trade, the total amounts receivable and payable on current account do not balance and the balance of payments for a given period ends up in a favourable (surplus) or unfavourable (deficit) balance.

9. Capital account

The capital account represents transfer of money and other capital items and changes in the country's foreign assets and liabilities resulting from the transactions recorded in the current account. The capital account transactions are short-term capital inflows and outflows for private purposes, official purposes or banking purposes. Private flows of capital include private company remittances for working capital purposes to subsidiaries or branches of foreign companies or short-term loans, grants from foreign banks, international financial institutions and foreign government. These short-term flows may be for compensatory purposes on government account. These can also be banking funds which are created for dealing with short-term purposes.

There are long-term capital movements which may again be private or governmental. The private flows include loans and advances granted to private parties, investment in shares, bonds, debentures by Indians abroad or by foreigners in India, investment in joint ventures, consultancy, turnkey projects, and deferred payment credits and so on. Such flows on official account also take place through government loans, credits, and grants for private long-term purposes. Foreign investment in India is the amount invested by non-residents in the equality of entities in India. The difference between direct and portfolio investment is one of intention of the investor. Direct investment reflects a lasting interest of the investor in the entity and his intention to take active role in the management of the company.

Investments in equity by the direct investor and the amounts accruing on the original investment but retained in the country fall under the category of direct investment. Portfolio investment covers transactions in equity securities other than direct investment. The investor does not intend to take part in the management of the company. Foreign investment abroad is the amount invested by residents in entities abroad.

Loans comprise external assistance, commercial borrowings and short term loans. External assistance is borrowings from multilateral organizations like World Bank and from bilateral sources, mainly on confessional terms. Commercial borrowings are debts owed to international banks, borrowings in bond markets, credits from export credit agencies and loans provided on commercial terms by specialized multilateral or bilateral institutions like International Finance Corporation. Short term credits are those repayable within one year. Banking capital covers the assets and liabilities of commercial banks, non-resident deposit accounts and other financial institutions.

The capital account reflects the changes in foreign assets and liabilities of the country and affects its creditors/debtor position. An excess of foreign assets over foreign liabilities indicates a net creditor position and vice versa. Net changes in current account are reflected by a corresponding and opposite change in the capital account, changing the foreign assets and liabilities position of the country. Current account is like an income and expenditure statement with surplus or deficit in it, transferred to capital account which lies in a balance sheet. If all these accounts do not tally, errors and omissions are added to balance the corresponding column of balance of payments. In an economic sense, a country has a surplus or deficit in its balance of payments, when its transactions other than those merely financing the real transactions are not in balance. Those merely financing are said to be below the line while others are above the line. The selection of items which are below the line is generally decided by each country, depending upon its requirements for economic policy in the short run and long run.

The last item on balance of payments other than errors and omissions is the movement in foreign exchange reserves of the country which is usually shown in the capital account. These reserves are in foreign currencies, foreign assets, investments and balances held abroad, or gold of the government, and official monetary agencies of a country.

10. Balance on capital account

Balance on capital account is the net of inflows and outflows on capital transactions. It is also appropriate to call this balance, a private capital account as this excludes movement in official reserves.

11. Overall balance

Overall balance is the total balance on a current account and balance on a capital account. It is also called official settlement balance since it must be financed by official reserves or by other non-reserve transactions that are substitute for reserve transactions. This is a very important measure because it reflects a country's overall competitive position in terms of all private transactions and exerts pressure.

Balance of Trade

Balance of trade is defined as the difference between the exports and imports of a country. The balance of trade is considered as the most significant component of the current account of balance of payments as it helps in measuring a country's net

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income which is earned on international assets. It also includes all payments across borders. It has also been observed by economists that measuring the trade balance is the most convenient method to measure the economy's growth as it almost all goods and services pass through the customs, thus, it has a record of all the country's transactions.

The balance of trade includes three major components which are as follows:

- **Debt items**: It can be classified as imports, foreign aids, domestic spending and investments.
- **Credit items**: It can include exports, foreign spending in the domestic economy and foreign investments.
- **Services**: It also forms an important part as it includes the services which are provided while traveling, such as transportation, hotels, and meals and so on. It also includes technical imports.

A country suffers from a trade deficit when there is excess of imports over exports, while trade surplus means excess of exports over imports. It has been observed that a balance of trade surplus is favourable for the domestic producers who engage in exports. Acountry tries to maintain a favourable trade balance by using methods such as trade protectionism. This method protects the domestic industries by levying on them tariffs, quotas or subsidies on imports. However, this methods turns out to be favourable, if the countries also retaliate with their tariffs.

A favourable trade balance depends on three factors which are as follows:

- A country's position in its business cycle
- Duration of its condition whether a surplus or a deficit
- Factors contributing to its trade deficit or trade surplus

In some cases trade balance can be unfavourable also, when the domestic consumers pay high prices for the exported goods and services. Alternatively, a balance of trade deficit is considered as unfavourable to domestic producers especially in cases of high competition in the market, however, it can be beneficial for domestic consumers as they enjoy goods and services at lower prices. These unfavourable situations leads to trade deficit as most of the countries with trade deficits import more in consumer products than they export in raw materials. Trade deficit makes a country dependent on global commodities prices which in the long run, can deplete their natural resources.

The trade deficit in India declined 25 per cent subsequently to USD 8.12 billion in June of 2016. The export rate increased to 1.27 per cent to USD 22.5 million, which was the biggest gain for the economy. The non-petroleum sales which accounted for 88.6 per cent of total exports was also increased by 3 per cent. In case of export partners, the shipments were increased in case of European Union (4.3 per cent) but consequently fell in case of United States (–7.4 per cent).

Imports were also slumped by 7.3 per cent during the year as compared to earlier trends which was an approximate of 30.7 billion, thus, was considered as the nineteenth consecutive months of decline. The oil purchases were decreased by 16.4 per cent and the non-oil purchases also decreased by 4.1 per cent. In terms of monthly basis, the country's trade gap widened for the second month, reaching the highest so far this year. The Balance of Trade in India averaged –2126.93 USD Million from 1957 until 2016, which was marked as an all-time high reaching 258.90 USD Million in March of 1977 and a record low of –20210.90 USD Million in October of 2012.

At present, India's trade deficit narrowed to a five-year low of $4.8 billion in the first month of the current financial year, led by a sharp fall in gold imports due to a

nationwide strike by jewellers protesting against the proposed 1 per cent excise duty and a decrease in inbound oil shipments.

Exports declined for the seventeenth straight month, with shipments dropping 6.74 per cent to $20.56 billion in April, while imports fell 23.1 per cent to $25.4 billion, dragged down by lower oil imports, according to data released by the Ministry of Commerce and Industry.

Check Your Progress

5. State the main purpose of balance of payment account.
6. What are the major components of balance of payments statement?
7. What does the capital account represent?
8. Why is overall balance considered to be an important measure of BOP?

2.5 DISEQUILIBRIUM IN THE BALANCE OF PAYMENTS AND CORRECTIVE MEASURES

In an accounting sense, the BOP is always in balance. The detailed accounting of BOP is based on the double entry book-keeping system. Under this system, both kinds of flows of a transaction—receipts and payments—are recorded as debits and credits in the book of accounts. Recall the example, when a country imports goods, goods are received and money (foreign currency) is paid out. In this case, imports are debit items and payments are credit items. Similarly, exports (goods going out of the country) are credit items and receipts of payments are debit items. The same is the case with foreign borrowing and lending. In the case of foreign borrowing, money borrowed is debited and the lender is credited and, in the case of lending, the borrower is debited and the money lent, credited. However, in the case of unilateral transactions (foreign aid, gifts, donations, financial assistance, etc.), there is a one-way flow of money. In this case, for record purposes, the receiving country is debited and donating country is credited. Under this accounting system, both debit and credit sides are always equal. Therefore, in an accounting sense, the BOP is always in balance. It implies that the BOP is always in equilibrium and there is no disequilibrium. In reality, however, this is not the case. The equilibrium of BOP is a rare phenomenon. The BOP of most countries is usually in disequilibrium. Let us now discuss how BOP disequilibrium is assessed.

Assessment of BOP Disequilibrium

The BOP disequilibrium may be in the form of BOP surplus or deficit. For assessing the BOP position of a country, all international transactions—current and capital transactions—are taken into account. For the purpose of BOP assessment, all international transactions are grouped under the following two categories:

- Autonomous transactions
- Induced or accommodating transactions

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Autonomous Transactions

Autonomous transactions are transactions that take place automatically due to natural human need and desire for consuming more and better goods, and to make the best possible use of resources for higher profits and incomes. Autonomous transactions generally appear in the form of exports and imports of goods and services. These exports and imports are necessitated by the following economic reasons:

- The scarcity of necessities in the domestic market, e.g., food and clothing
- The demand for such inputs as oil, industrial raw materials, and so on
- The need for better and less costly machinery, equipment, and technology to increase the production capacity of the economy
- The desire for more and better goods and services

All these kinds of transactions are recorded in the current account of the balance of payments. In other words, autonomous transactions are essentially current account transactions.

Induced or Accommodating Transactions

The autonomous transactions between a nation and the rest of the world are not always in balance. Exports and imports are not always equal in value terms. It is the general experience of nations that $X \neq M$. Either $X > M$ or $X < M$ in value terms. That is, receipts from exports and payments for imports are not equal always. In case $X \neq M$, there is a need for payments by the countries with a deficit. The need for payments generates short-term capital movements in the form of borrowing or lending—the deficit country borrows and the surplus country lends in order to settle the payments. Such short-term borrowing and lending is induced by foreign trade—exports and imports. That is why these transactions are called induced transactions or accommodating transactions.

Autonomous and induced transactions arise also on account of long-term capital transactions. The long-term foreign investments, i.e., exports and imports of capital, are treated as autonomous transactions. Also, short-term overseas investments motivated by the desire for higher returns fall in the category of autonomous transactions. However, short-term capital movements in the form of gold movements and accommodating capital movements on account of autonomous transactions are treated as induced transactions.

Having explained the concept of autonomous and induced transactions, let us now look at the method of assessing a disequilibrium in the balance of payments.

Method of Assessing a BOP Disequilibrium

In assessing the BOP equilibrium or disequilibrium, only autonomous transactions of both current and capital accounts are taken into account. If total receipts and payments on account of autonomous transactions in both capital and current accounts are in balance, the BOP is said to be in equilibrium. However, as noted above, the receipts and payments on account of autonomous transactions are hardly ever in balance—they are usually unequal. Therefore, in most cases, the BOP is in disequilibrium.

In the process of assessing the BOP disequilibrium, first the current account balance of autonomous transactions—the balance of exports, imports, and unilateral payments—is estimated. Then, the capital account balance is worked out on the basis of short-term and long-term capital transactions. Finally, the current account balance (surplus

or deficit) and capital account balance are summed up to assess the BOP status of the country. If the sum of the current and capital account balance is negative, it shows a BOP disequilibrium of deficit nature. If the sum of the autonomous transactions of the current and capital account balance is positive, it shows a BOP disequilibrium of surplus nature. Thus, the BOP accounting may result in either a deficit or a surplus. The BOP deficit is financed through foreign borrowing and a BOP surplus goes towards foreign lending. Foreign borrowings and lendings bring the balance of payments to equilibrium. 'A country is said to be in balance of payments equilibrium when the sum of its current, capital, and non-reserve financial accounts equals zero, so that the current plus capital account balance is financed entirely by international lending without reserve movements.'

As noted above, the BOP disequilibrium may result from a BOP surplus or a BOP deficit. A surplus BOP disequilibrium is reflected in a substantial rise in the gold and foreign exchange reserves of the country and external lending. And a deficit BOP disequilibrium is reflected in a substantial depletion of gold and foreign exchange reserves of the country and external borrowing. However, a deficit disequilibrium is a matter of great concern for a country. This is because a large and persistent deficit in the BOP affects the economy of the country adversely. Therefore, nations facing a deficit BOP disequilibrium must adopt suitable policy measures to correct it.

Causes and Kinds of BOP Disequilibrium

The BOP disequilibrium may be of surplus or deficit nature of autonomous current and capital account transactions. The BOP disequilibrium of surplus kind does not create a big problem for the economy. In long run, however, it may cause inflation due to overspending by the government and currency appreciation, which affects exports adversely. Inflation and currency appreciation do affect the economy adversely, but these problems are manageable. However, BOP disequilibrium of deficit nature creates serious problems for the economy, which are often difficult to manage.

Causes of Trade Deficits

Recall that a deficit BOP disequilibrium arises when autonomous payments far exceed autonomous receipts. Autonomous payments include (i) payments for the import of goods and services, and (ii) capital outflows, i.e., investments abroad. Similarly, autonomous receipts include (i) export earnings, and (ii) capital inflows. If autonomous capital outflows and inflows are in balance or capital outflows and inflows are not significantly different, the BOP disequilibrium is caused by current account deficits. The current account deficit arises mainly because of trade deficits, i.e., imports exceeding exports of goods and services. In fact, the first and the most important cause of BOP disequilibrium is imports exceeding exports significantly over time. Thus, a trade deficit is caused mostly by a high rise in imports and a slow rise or decline in exports. The imports of a country, especially of a rapidly developing country, increase for the following reasons:

- A high rate of economic growth leading to a rise in demand for industrial inputs.
- A high rate of inflation compared to foreign countries.
- An increase in the overall demand for foreign goods and services.
- A high income elasticity of demand for foreign goods.
- A low price elasticity of demand for imported goods.
- People's preference for foreign goods.

Countries confronted with these kinds of unfavourable conditions face trade deficits, i.e., a deficit BOP disequilibrium.

Kinds of Disequilibrium

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The kinds and causes of BOP disequilibrium are its important aspects from the view point of policies required for correcting it. Here, we describe briefly the kinds of BOP disequilibrium.

(i) Fundamental disequilibrium: When the BOP disequilibrium is caused by a high rate of persistent inflation, it is referred to as a fundamental disequilibrium. This kind of BOP disequilibrium is 'fundamental' because it is based on the fundamental laws of demand and supply under a free trade system. A high rate of long-term inflation causes a significant change in the relative prices of imports and exports. Inflation makes domestic goods costlier than imports. If the price elasticity of demand for foreign goods is significantly high, the demand for imported goods increases, given the exchange rate. On the other hand, inflation makes domestic goods costlier for foreigners. Therefore, exports continue to decrease, given the price elasticity of demand in foreign countries. With increasing imports and decreasing exports, the trade deficit keeps widening over time and becomes permanent. A long-run, large, and persistent trade deficit causes an 'obdurate' BOP disequilibrium—one that tends to persist.

(ii) Cyclical disequilibrium: A BOP disequilibrium that arises because of global business cycles is called a cyclical disequilibrium. A business cycle refers to an intermittent tendency for growth and depression in an economy—it may even be global like the Great Depression of the 1930s following rapid global growth after World War I. The Global Depression (second only to the Great Depression) of 2008–09 originating in the United States, is another evidence of the repetition of business cycles. During a business cycle, there is a phase of rapid growth followed by a sharp decline in economic activities. An important consequence of business cycles is the foreign trade cycle, since the impact of global business cycles is different on different countries. For example, during the recent global depression of 2008–09, the US and European countries suffered a great deal, while China and India were least affected. Therefore, imports and exports of different countries are affected in different ways. While, some countries enjoy a trade surplus, others suffer from trade deficits. As a result, different countries face different kinds of BOP disequilibrium. While, some countries have a deficit BOP disequilibrium, others have a surplus BOP disequilibrium. This kind of BOP disequilibrium is called cyclical disequilibrium. An important aspect of a cyclical BOP disequilibrium is that it is generally self-correcting.

(iii) Structural disequilibrium: Another major cause of BOP disequilibrium is the structural change in the domestic or foreign economy. Structural changes in the economy may be caused by such factors as depletion of natural resources (coal, iron, oil and other minerals), change in technology, change in the industrial structure of an economy, change in consumer preferences and choices, etc. Such change, if not accompanied by changing demand patterns, reduces the competitive strength of exporting countries in the international market either owing to a high cost of production or a decrease in foreign demand. For example, exhaustion of good quality coal seams in the Great Britain in the middle of 20th century converted the country from a net exporter to a net importer of coal. Look at another example.

The introduction and extensive use of nylon in the US affected Japanese silk exports heavily. These kinds of changes affect the trade pattern. While some nations gain, others lose and, therefore, while some nations see BOP deficits, others have a BOP surplus. This is called structural BOP disequilibrium.

(iv) Temporal disequilibrium: Many countries are often confronted with BOP disequilibrium for a short period. This is known as temporal BOP disequilibrium. Some major factors which cause temporal BOP disequilibrium are the following:

- Seasonal crop failures owing to heavy rainfall and droughts, especially in countries producing mainly primary goods. India is one such example.
- Sudden economic depression that causes a sharp decline in the GDP of the country forcing a rapid rise in imports and sharp decline in exports due to a sudden decline in the domestic production.
- Ambitious development programmes requiring heavy imports of industrial inputs, technological know-how, machinery, and equipment.
- Change in consumer choices and preferences owing to the better quality of foreign goods and/or the demonstration effect of advanced countries on the consumption pattern of developing economies, leading to high imports and trade deficits.

Implications of BOP Disequilibrium

As noted earlier, the BOP disequilibrium, whether with a BOP deficit or surplus, has implications for the economy. The nature and seriousness of the problems arising out of a BOP disequilibrium may be different for different countries at different times. The BOP disequilibrium also creates international problems. A deficit BOP disequilibrium has the following implications for the economy.

(i) Rise in international indebtedness: A large and persistent BOP disequilibrium caused by trade deficits leads to a rapid rise in international borrowings and international indebtedness. For example, look at the increasing trade deficits of India over the past decade and increasing external debts. As shown in Table 5.6, the trade deficit of India has continuously increased over the past decade—from US$12.4 billion in 2000–01 to US$118.4 billion in 2009–10.

Owing to the increasing trade deficit, the external debt of the country has increased over this period, as shown in Table 5.7. The overall external debt of India increased almost continuously from US$101.3 billion in 2001 to US$262.3 billion in 2010. This increase was not owing mainly to an increase in trade deficits but was an important factor in causing an increase in external debt. A consolatory factor is that India has comfortable foreign exchange reserves.

(ii) Adverse impact on economic growth: Another and a very serious implication for a country facing a large and persistent BOP deficit is that its GDP growth rate is affected adversely. This is because a large and persistent deficit acts to restrain the import of industrial inputs and advanced technology required for rapid economic growth. As a matter of fact, this has been the case for most underdeveloped countries struggling to accelerate the pace of their economic growth. Owing to their backward technology, the production and export of underdeveloped countries is largely limited to labour-intensive and primary goods. Prices of such goods are comparatively low. Therefore, their export earnings are also lower in spite of a substantial increase in their exports.

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Table 5.6 *India's Current Account and External Debt: 2000–01 to 2009–10*

Year	Exports	Imports	Trade balance
2000–01	45.5	57.9	–12.5
2001–02	44.7	56.3	–11.6
2002–03	53.8	64.5	–10.7
2003–04	66.3	80.0	–13.7
2004–05	85.2	118.9	–33.7
2005–06	105.2	157.1	–51.9
2006–07	128.9	190.7	–61.8
2007–08	166.2	256.6	–91.4
2008–09	189.0	308.5	–119.5
2009–10	182.2	300.6	–118.4

Source*: Economic Survey* 2006–07 (Table 6.2, p. 108), 2008–09 (Table 6.2, p. 127) and 2010–11 (Table 6.1, p. 137).

Table 5.7 *External Debt of India: 2000–10*

	(US$ billion)
Year	**External debt**
2001	101.3
2002	98.8
2003	104.9
2004	112.7
2005	134.0
2006	139.1
2007	172.4
2008	224.4
2009	224.5
2010	262.3

Source: *Economic Survey* 2010–11, Table 8.4(B), p. A118.

(iii) Rise in unemployment: Large and persistent BOP deficits lead to outflows of income from a country. This kind of situation limits the savings and investments of a country and lowers the growth rate of the economy. Lower growth accompanied with rapid increase in the labour force leads to growth of unemployment. Besides, the low growth of exports limits the expansion of export-oriented industries, limiting the prospects for more employment.

(iv) Financial crisis: An overall implication of a large and persistent BOP deficit over a long period of time is that it leads to financial crisis. As noted above, a persistent trade deficit leads to large external debt. In such a case, not only the borrowing power of the country reduced, but also the international organizations like the World Bank and International Monetary Fund, and foreign countries (even those that are financially strong) become reluctant to offer financial help. This was the experience of India in 1991 and of the Asian tigers in the 1980s.

The most important implication of a surplus BOP disequilibrium is a rise in the international economic power and strength of the country. For example, take the

case of China. China has had a surplus BOP disequilibrium in the 21st century. It had a trade surplus of about $29 billion in July 2010—one of the highest in the recent past. China's exports rose by about 38 per cent and imports by about 28 per cent. The trade surplus would have led to a high appreciation of the Chinese currency (renminbi, or RMB), also known as yuan, but it did not, because China controlled the exchange rate. This was one of the reasons why China's exports rose at a higher rate than its imports. This affected exports of the US, China's main trade partner, and led to a depreciation of the US dollar. The US, experiencing a critical economic condition, put pressure on China to allow its currency to fluctuate in tandem with market conditions. This led to depreciation of the Chinese currency, the yuan, against the US dollar, though marginally and over a long period of time. The yuan appreciated to 6.5 yuan per dollar after 17 years. This did affect China's exports, but only marginally.

Furthermore, China's trade surplus pushed its foreign exchange reserves beyond US$3 trillion in 2010 which crossed the reasonable limit of US$1.3 trillion. Accordingto Zhou Xiaochuan, governor of China's central bank, China's foreign exchangereserves exceeded the reasonable requirements of the country. These excessive reserves have led to an appreciation of the yuan and affected China's exportsadversely.

Another effect of BOP disequilibrium of surplus nature is inflation. BOP surplus generally leads to overspending by the government of developing countries. This leads to inflation. A high rate of inflation is a matter of concern.

In conclusion, it may be said that although a surplus or deficit BOP disequilibrium has its own economic implications, the problems caused by a BOP deficit affects countries more severely.

Corrective Measures of Adverse Balance of Payment

Some of the measures to discuss adverse balance of payment situation in the country are discussed in brief below:

(i) Export promotion

Exports should be encouraged by granting various bounties to manufacturers and exporters. At the same time, imports should be discouraged by undertaking import substitution and imposing reasonable tariffs.

(ii) Import

Restrictions of imports as well as Import Substitution are other measures of correcting disequilibrium.

(iii) Reducing inflation

Inflation (continuous rise in prices) discourages exports and encourages imports. Therefore, government should check inflation and lower the prices in the country.

(iv) Exchange control

Government should control foreign exchange by ordering all exporters to surrender their foreign exchange to the central bank and then ration out among licensed importers.

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(v) Devaluation of domestic currency

It means fall in the external (exchange) value of domestic currency in terms of a unit of foreign exchange which makes domestic goods cheaper for the foreigners. Devaluation is done by a government order when a country has adopted a fixed exchange rate system. Care should be taken that devaluation should not cause rise in internal price level.

(vi) Depreciation

Like devaluation, depreciation leads to fall in external purchasing power of home currency. Depreciation occurs in a free market system wherein demand for foreign exchange far exceeds the supply of foreign exchange in foreign exchange market of a country (Mind, devaluation is done in fixed exchange rate system.)

CHECK YOUR PROGRESS

9. What are autonomous transactions?
10. When is a country said to be in balance of payments equilibrium?
11. What is cyclical disequilibrium?

2.6 SUMMARY

- Adam Smith, the father of economics, was the first to formulate a theory of international trade. His theory of foreign trade is known as the theory of absolute advantage. According to his theory, the basis of trade between any two countries is the absolute cost advantage a country has in the production of a commodity compared to costs in the other country.
- The absolute advantage theory of trade is undoubtedly logically sound. However, economists have pointed out some serious drawbacks of this theory.
- Adam Smith's theory of absolute advantage, formulated in 1776, prevailed for four decades, in spite of its weaknesses, until Ricardo formulated his own theory of international trade in 1817 in his book *Principles of Political Economy and Taxation*.
- The Ricardian theory of comparative advantage appears to be theoretically sound. There is, however, one exception to the law of comparative advantage. If one of the two countries, *A* and *B*, has absolute advantage in both products but their comparative advantage (measured in terms of labour-cost ratios) is the same, then trade between them would not be gainful.
- Although Ricardo's theory of comparative advantage is theoretically sound and still retains the interest of economists, it has been severely criticized over time for its simplifying assumptions.
- Ricardo assumed homogeneity of labour, which he considered as an 'approximation of reality.' This is, in fact, unrealistic. Labour is not homogeneous throughout theworld. It varies in skill and productivity.

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- The pure theory of trade as expounded by the classical economists tries to show that trade is possible as well as profitable to all trading nations. In Smith's model, each of the two countries must have an absolute advantage in one or the other line of production.
- The neo-classical model of international trade has been developed using the concepts of opportunity costs, production-possibility frontiers and community indifference curves. In this model labour theory, value is dropped to make room for a more general theory of costs and production.
- There is no country which is self-sufficient and this interdependence of countries is reflected in international economic and commercial transactions.
- Balance of payments (BOP) of a country has been defined as a systematic record of all economic transactions between the residents of the reporting country and residents of foreign countries. Thus, balance of payments includes both visible and invisible transactions.
- The balance of payments is a complete tabulation of the total market value of goods, services, and financial assets that domestic residents, firms, and governments exchange with residents of other nations during a given period.
- Balance of trade refers to the net difference between the value of export and import of merchandise or the visible trade.
- Balance of payments includes the foreign trade in its broad sense and includes not only visible trade but invisible items also. Thus, this term is more comprehensive than balance of trade.
- The BOP disequilibrium may be in the form of BOP surplus or deficit. For assessing the BOP position of a country, all international transactions—current and capital transactions—are taken into account.
- In assessing the BOP equilibrium or disequilibrium, only autonomous transactions of both current and capital accounts are taken into account. If total receipts and payments on account of autonomous transactions in both capital and current accounts are in balance, the BOP is said to be in equilibrium.
- When the BOP disequilibrium is caused by a high rate of persistent inflation, it is referred to as a fundamental disequilibrium. This kind of BOP disequilibrium is 'fundamental' because it is based on the fundamental laws of demand and supply under a free trade system.
- Many countries are often confronted with BOP disequilibrium for a short period. This is known as temporal BOP disequilibrium.
- In conclusion, it may be said that although a surplus or deficit BOP disequilibrium has its own economic implications, the problems caused by a BOP deficit affects countries more severely.

2.7 KEY TERMS

- **Autarky:** Autarky is the quality of being self-sufficient. Usually, the term is applied to political states or their economic systems. Autarky exists whenever an entity can survive or continue its activities without external assistance or international trade.

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- **Balance of payments:** It is defined as an account of all international receipts and payments for the accounting year.
- **Balance of trade:** Balance of trade refers to the net difference between the value of export and import of merchandise or the visible trade.
- **Fundamental disequilibrium:** When the BOP disequilibrium is caused by a high rate of persistent inflation, it is referred to as a fundamental disequilibrium.

2.8 ANSWERS TO 'CHECK YOUR PROGRESS'

1. According to Adam Smith's theory of absolute advantage, the basis of trade between any two countries is the absolute cost advantage a country has in the production of a commodity compared to costs in the other country.
2. The three disadvantages of the comparative advantage theory are as follows:
   - Labour not homogeneous
   - Demand-side ignored
   - Invalid labour theory of value
3. When the marginal opportunity costs are increasing in the production of the two goods in the two countries, we will have concave-shaped transformation curves in the two countries.
4. The labour theory of value is not generally accepted as valid at least for two reasons:
   - Labour is not a homogeneous factor.
   - Labour is not the only factor of production. Goods are produced by using some combination of land, labour, capital and entrepreneurship not solely labour.
5. The main purpose of the balance of payment is to inform the government of the international position of the nation and to help it in its formulation of monetary, fiscal, and trade policies.
6. The balance of payments statement is presented with three major components:
   - Current account
   - Capital account
   - Official reserves account
7. The capital account represents transfer of money and other capital items and changes in the country's foreign assets and liabilities resulting from the transactions recorded in the current account.
8. Overall balance is an important measure of BOP because it reflects a country's overall competitive position in terms of all private transactions and exerts pressure.
9. Autonomous transactions are transactions that take place automatically due to natural human need and desire for consuming more and better goods, and to make the best possible use of resources for higher profits and incomes.
10. A country is said to be in balance of payments equilibrium when the sum of its current, capital, and non-reserve financial accounts equals zero, so that the current plus capital account balance is financed entirely by international lending without reserve movements.
11. A BOP disequilibrium that arises because of global business cycles is called a cyclical disequilibrium.

2.9 QUESTIONS AND EXERCISES

Short-Answer Questions

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1. State the various components of balance of trade.
2. State the factors that lead to a favourable balance of trade.
3. What are the kinds of balance of payments disequilibrium? What are the factors that cause fundamental disequilibrium?
4. Why is balance of trade considered to be a significant part of current account?
5. Is trade gainful for two nations if none of them has an absolute advantage in any of the products? Give proof for your answer.

Long-Answer Questions

1. What is meant by a balance of payments equilibrium and disequilibrium? How is the equilibrium of the balance of payments assessed?
2. Discuss any four measures that help in controlling unfavourable balance of payment account.
3. Distinguish between fundamental and cyclical disequilibrium of the balance of payments. Which of the two balance of payments disequilibrium is self-correcting?
4. What are the implications of a deficit balance of payments disequilibrium for the economy as a whole? Explain with examples.
5. Illustrate Ricardo's concept of comparative advantage in international trade using a numerical example.
6. Explain the features of balance of payments account.

2.10 FURTHER READING

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UNIT III RATE OF EXCHANGE

Structure **NOTES**

3.0 INTRODUCTION

By definition, the exchange rate is the rate at which the currency of a country can be exchanged for another. In simple words, it is the price of one currency in terms of another. When an Indian citizen imports a Mercedes car from the US, he/she will have to pay the Mercedes company in US dollars and not in Indian rupees. Thus, the importer will have to acquire UD dollars from the exchange market for the purpose of making the payment for the imported car. The price of the US dollar in terms of the Indian rupee is given in the exchange market. To acquire US dollars, the person will have to exchange the Indian currency for the US dollar in the exchange market. The price that the Indian citizen pays for US dollar is the rupee-dollar exchange rate. The exchange rate is determined for different currencies in the exchange market and made public through the news media.

In this unit, you will be able to explain the meaning of floating exchange rate and problems of balance of payments. This unit will also deal with the foreign exchange reserve and its determinants. At the end of this unit, the functions of the IMF have also been explained.

3.1 UNIT OBJECTIVES

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

- Define the concept of floating exchange rate
- Discuss the different phases of exchange rate regime
- Identify various problems of balance of payments
- Discuss the foreign exchange reserve and its determinants
- Explain the functions of International Monetary Fund

3.2 FLOATING EXCHANGE RATE

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Neither the fixed nor the flexible or floating exchange rate system could be sustained by any country over a long period, especially after the gold standard regime. In practice, therefore, most countries have adopted a managed exchange rate system especially after the establishment of the IMF. This period is referred to as the exchange rate regime.

The exchange rate regime refers to an arrangement between nations to determine the exchange rate by mutual agreement and settle their payments by using the rate so determined. It is difficult to fix the date on which the exchange rate regime came into existence. It can nevertheless be said that the exchange rate regime is the product of the Great Depression which shattered international trade and financial equilibrium. Going further back, before World War I, most major countries were on the gold standard in the sense that they tied their currency to gold and allowed unrestricted export and import of gold. The exchange rate was determined by the mint parity of gold content in the currencies. The basic feature of the gold standard was that the exchange rate was fixed. The role of the government was confined to making sure the mints worked properly. Since gold prices were stable, in general, the exchange rate was stable. During World War I, however, the fixed exchange rate policy was abandoned. However, it was restored after the war in the early 1920s. Although, towards the end of 1920s, the Great Depression devastated the entire international trade and payment system. Before the system could be restored to order, World War II created new problems and added new dimensions to the international payments problems. However, the establishment of the IMF under the Bretton Woods Agreements, created a system of managed exchange rate, also called the system of adjustable peg. This marks the beginning of the exchange rate regime.

The exchange rate regime passed through the following five distinct phases and forms of management:

- Fixed exchange rate
- Floating exchange rate
- Adjustable peg
- Managed floating
- Exchange control

The basic features of these phases are described as follows:

Fixed Exchange Rate System

Under the fixed exchange rate system, the exchange rate between any two currencies were fixed in terms of gold and pegged to the US dollar at $ 35 per ounce of gold. Thus, the exchange rate between any two currencies was automatically fixed. The rate so fixed was called the rate at par value. The monetary authorities of the member countries were free to buy and sell freely the foreign currency at the fixed rate. The countries were allowed to change the exchange rate by ± 1 per cent. However, this system broke down in 1971 owing to the 1971 crisis.

What was the origin of 1971 crisis? Towards the end of the 1960s, the dollar was overvalued which caused the devaluation of other currencies vis-a-vis dollar. On the other hand, heavy deficit financing by the US to finance the Vietnam War caused inflation in the US economy. Inflation eroded the competitiveness of US industries; US export declined and the US current account went into deficit in 1968. In 1971, the US recorded

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a deficit in its merchandise trade for the first time in the 20th century. The American economy was in recession for a short while. The monetary policy which the US had adopted to tide over the recession led to capital outflows. A flight from the dollar began. Some strong European currencies, especially those of Germany and the Netherlands, came under pressure owing to heavy demand for them. As a result, the Netherlands and Germany were forced to suspend their support to the exchange rate parity and to allow their currencies to float upward. Later, Switzerland and Italy revalued their currencies. Meanwhile, foreign central banks began to get rid of the dollar reserves which they had acquired. The dollar was becoming heavily undervalued. The US government, therefore, suspended the conversion of short-term liabilities into gold and made the dollar inconvertible on 15 August 1971. Consequently, 48 nations abandoned the fixed exchange rate arrangement in August 1971. And that was the end of the fixed exchange rate system.

Floating Exchange Rate

The fixed exchange rate system was suspended on 18 August 1971 and remained suspended till 18 December 1971. A group of 10 industrial nations, met in Smithsonian Institution, Washington, and hammered out a new system of stable exchange rates. Under the agreement, called the Smithsonian Agreement, two following major agreements were made: (i) the US agreed to devalue the dollar by 8.5 per cent (from $35 to $38 per ounce of gold), and Japan and Germany agreed to revalue their currencies by 17 per cent and 14 per cent, respectively, and (ii) the margin of adjustment was increased from ± 1 per cent to ± 2.25 per cent. This margin was further raised to ± 4.5 per cent in 1973. Thereafter, the European Economic Community (EEC) adopted a lower margin of flexibility, which was termed as the snake in the tunnel.' The fixed exchange rate system under the Smithsonian agreement broke down after two years when the US devalued its dollar again on 12 February 1973. This was the end of the Bretton Woods system. Thereafter, some countries, including Japan, Canada, UK, India, Switzerland, and several smaller nations went for floating exchange rates in March 1973. The EEC countries freed their currencies of the lower and upper bounds. The EEC currencies had a virtual free float and the 'snake in the tunnel' now became 'the snake in the lake.' A formal system of floating exchange rates was instituted with the Jamaica agreement in 1976.

Adjustable Pegging of the Exchange Rate

A hybrid of regimes emerged after the breakdown of the Bretton Woods system in 1973. The hybrid system was very complex. Different countries adopted a different regime. For instance, EEC countries formed a European Monetary System (EMS) in which nations (except Britain, Greece, and Italy) maintained adjustable pegs vis-a-vis the currency of each other. Many developing countries maintained adjustable pegs to the US dollar, some to the French franc, some to the UK pound, some to the Spanish peseta, and some to the South African rand.

Managed Floating

In the managed floating regime, countries do not adopt a fixed exchange rate, i.e., a fixed price of the national currency in terms of foreign currencies. However, they are free to buy and sell foreign currencies to manage the exchange rate at or around a desirable level. The industrial nations, other than EEC countries, have adopted, by and large, the system of managed floating.

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Exchange Control

The exchange control regime is the regime of direct control of the foreign exchange rate and foreign exchange transactions being confined to the central bank of the country. All private transactions in foreign exchange are suspended. Exporters are required to surrender their foreign exchange earnings to the monetary authorities. Importers are required to obtain foreign exchange from the central bank. Before the liberalization of foreign trade in the early 1990s, India had a full-fledged exchange control regime through the enactment of FERA and COFEPOSA. Exchange control is resorted to for achieving such objectives as follows.

- To conserve scarce foreign exchange earnings to meet essential import requirements
- To prevent the flight of capital, specially foreign capital and NRI deposits
- To prevent the import of non-essential consumer goods
- To improve the balance of payments position
- To prevent speculative dealings in foreign exchange and their adverse consequences

Check Your Progress

1. Define the exchange rate regime.
2. What was the basic feature of the gold standard?

3.3 FLOATING EXCHANGE RATE AND PROBLEMS OF BALANCE OF PAYMENTS

The distinguishing characteristic of a floating exchange rate system is that the price of a currency adjusts automatically to whatever level is required to equate the supply of and demand for that currency, thereby clearing the market. The logic of the relationship between our international transactions and the supply and demand for currencies implies that this market-clearing, or 'equilibrium', price also produces automatic equilibrium in the balance of payments. That is, the balance of current account (whether positive, negative, or zero) must be precisely offset by the balance (negative, positive, or zero) of the capital account. Under floating exchange rates these outcomes are achieved automatically without the need for government intervention. By contrast, under fixed exchange rates balance of payments equilibrium is not the normal condition.

In a fixed exchange rate regime the need to manage the balance of payments often creates difficult conflicts with the government's domestic policy objectives. By ensuring automatic balance of payments equilibrium, floating exchange rates can liberate economic policy from this constraint, allowing the government to concentrate more easily on such internal issues as full employment and price stability. But we have noted earlier that balance of payments equilibrium means nothing more than that the current account and the capital account sum to zero. If, as in Australia's case, this state is achieved with a large and generally increasing current account deficit, matched by a correspondingly large and increasing capital account surplus, the government may be tempted to try to correct these tendencies. To this extent, balance of payments considerations may still

compete with domestic considerations in the policy agenda (though whether they should do so is a matter of some controversy).

Inappropriate policies, or a combination of the two may create balance of payments difficulties in a country—that is, a situation where sufficient financing on affordable terms cannot be obtained to meet international payment obligations. In the worst case, the difficulties can build into a crisis. The country's currency may be forced to depreciate rapidly, making international goods and capital more expensive, and the domestic economy may experience a painful disruption. These problems may also spread to other countries.

The causes of such difficulties are often varied and complex. Various key factors have included such as, weak domestic financial systems; large and persistent fiscal deficits; high levels of external and/or public debt; exchange rates fixed at inappropriate levels; natural disasters; or armed conflicts or a sudden and strong increase in the price of key commodities such as food and fuel. Some of these factors can directly affect a country's trade account, reducing exports or increasing imports. Others may reduce the financing available for international transactions; for example, investors may lose confidence in a country's prospects leading to massive asset sales, or 'capital flight'. In either case, diagnoses of, and responses to, crises are complicated by linkages between various sectors of the economy. Imbalances in one sector can quickly spread to other sectors, leading to widespread economic disruption.

Check Your Progress

3. What causes the balance of payments difficulties in a country?
4. List one effect of a country's currency depreciation.

3.4 FOREIGN EXCHANGE RESERVE AND ITS DETERMINANTS

Foreign exchange reserves, also known as forex reserves or FX reserves, refers to the supply of foreign currency held by a central bank or other monetary authorities. These reserves are comprised of a variety of international currencies, mostly the United States dollar, the EU's euro, the British pound, and Japanese yen. A country needs foreign exchange reserves mainly because of two reasons; (i) to withstand occasional speculative raid by the dealers in the foreign exchange market; and (ii) to synchronize its receipt and payments with the rest of the world. Holding large foreign exchange reserves is considered beneficial because this gives the country more power to ensure the stability of its economy. In general, the increase of foreign direct investment (FDI) will lead to the increase of the country's foreign exchange reserves (FER).

The Foreign exchange reserves of India are mainly composed of US dollar in the forms of US government bonds and institutional bonds. The main component is foreign currency assets. As per the data furnished by the Reserve Bank of India in its weekly statistical supplement, India's total foreign exchange reserves stood at US$368.231 billion in November 2016. In this, foreign currency assets (FCAs) was US$343.927 billion, while gold reserves was US$20.46 billion. Gold reserves in India constitute nearly 15 per cent of forex. India is, coincidentally the world's largest gold consuming nation. India is

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at 8th position in list of countries by foreign-exchange reserves, just below Republic of China (Taiwan), Russia and South Korea. The Economic survey of India 2014-15 said India could target foreign exchange reserves of US$750 billion-US$1 trillion. Foreign exchange reserves act as the first line of defense for India in case of economic slowdown, but acquisition of reserves has its own costs. Foreign exchange reserves facilitate external trade and payment and promote orderly development and maintenance of foreign exchange market in India. The foreign exchange reserves in January 2017 are as follows:

Item	As on January 20, 2017		Variation over					
			Week		End-March 2016		Year	
	` Bn.	US$ Mn.	` Bn.	US$ Mn.	` Bn.	US$ Mn.	` Bn.	US$ Mn.
	1	2	3	4	5	6	7	8
1 Total Reserves	**24,549.5**	**360,775.2**	**15.1**	**932.4**	**762.1**	**599.0**	**1,168.2**	**13,212.3**
1.1 Foreign Currency Assets	23,030.8	338,434.4	15.2	926.4	840.2	2,330.5	1,150.4	13,387.8
1.2 Gold	1,262.9	18,584.1	–	–	–71.4	–1,530.9	119.4	1,344.0
1.3 SDRs	98.2	1,441.9	–	2.3	–1.4	–59.6	–171.7	–2,542.6
1.4 Reserve Position in the IMF	157.6	2,314.8	–0.1	3.7	–5.3	–141.0	70.1	1,023.1

Determinates of Foreign Exchange Reserves

The following are the factors that affect foreign exchange reserves in India.

- **Current account balance**: The net flow of capital out of a country is equal to domestic saving minus domestic investment; it is also equal to the current account (Higgins and Klitgaard, 2004). A current account surplus then translates into net capital inflows into the country. Net capital inflows would strengthen the domestic currency. Under a fixed exchange rate system such capital flows must be counterbalanced to maintain the peg, under a flexible exchange rate system the currency would appreciate. If a country wishes to maintain its fixed exchange rate or just wishes to maintain a weaker currency in order to be more competitive, it has to balance the net capital inflows with capital out- flows.
- **Exchange rate:** Beaufort and Kapteyn (2001) point out that the type of exchange rate system influences reserve demand. Frenkel (1983) found evidence that after the collapse of the Bretton Woods agreement the move to floating exchangerates decreased the level of reserves. In a fixed exchange rate scenario market forces will still act to change the real exchange rate. Therefore, the government will have to intervene to keep the nominal peg.
- **Marginal propensity to import:** The marginal propensity to import reflects the openness of the economy. A more open economy is more vulnerable to shock than a closed economy. If reserves are held as a precautionary measure to insulate against shock, it follows that the higher the marginal propensity to import the higher the level of reserves that are needed.

Check Your Progress

5. What do you understand by the term foreign exchange reserves?
6. What are the foreign exchange reserves of India composed of?

3.5 FUNCTIONS OF INTERNATIONAL MONETARY FUND

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Specifically, the basic objectives of the IMF are fourfold:

- Achieving a balanced expansion of world trade
- Ensuring stability of the exchange rate
- Preventing members from indulging in competitive devaluation
- Assisting members in correcting their BOP problems

This section describes briefly how the IMF functions to attain these objectives.

(i) Achieving balanced growth of world trade

World economies have been subject to violent fluctuations and therefore world trade has also fluctuated. Besides, protectionist trade policies and exchange controls not only affected world trade adversely, but also made developed countries gain at the cost of the less developed countries. One of the main functions of the IMF was to ensure balanced growth in international trade and the equitable distribution of trade benefits. For this purpose, the IMF Board of Governors held an annual meeting with member-countries to review their macroeconomic policies in the context of world economic conditions and advised them on the kind of economic policies they had to adopt to promote economic growth and stabilize the exchange rate. The IMF advised the member countries to reconcile their external policies—trade and exchange rate policies—with their internal policy objectives of economic growth, full employment, and price stability. The system worked quite smoothly, in general, until the breakdown of the Bretton Woods system in 1971.

(ii) Ensuring stability of the exchange rate

The exchange rate fluctuated wildly during the period of the Great Depression and World War II owing to the scarcity of gold and conflicting internal and external policies of member countries. One of the basic functions of the IMF has been to create conditions for the stability of the exchange rate. With this purpose, the IMF established a system of gold exchange standard. Under this system, the US, the greatest economic power, was required to maintain the price of gold at $35 per ounce and to exchange dollar for gold unconditionally. Other member-nations were required to fix the price of their currency in terms of the dollar (implicitly in terms of gold) and to change the exchange rate in the band of ±1 per cent of the par value. However, a member-country facing 'fundamental disequilibrium'—a large and persistent balance-of-payments deficit or surplus—could change the exchange rate by less than 10 per cent without the Fund's approval. Thus, the IMF created an adjustable peg system—a system of exchange rate stability with some flexibility. In a way, the IMF had established a flexible exchange rate system.

(iii) Preventing competitive devaluation

Competitive devaluation had become the general practice of countries to protect their economies during the post World War II period, particularly by countries facing persistent balance of payments deficits. These countries went for devaluation with the objective of increasing their exports and, thereby, reducing their unemployment. This led to competitive devaluation. Competitive devaluation affected world trade and the world economy

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adversely. So an important function of the IMF has been to prevent member-countries from indulging in competitive devaluation of their domestic currency. However, under the IMF rules, members are allowed to devalue their currency by 1 per cent. A country facing a fundamental balance of payments disequilibrium could devalue its currency by 5 per cent with the permission of the IMF.

(iv) Resolving balance of payments problems

Another important function of the IMF has been to assist member-countries facing a balance of payments disequilibrium to resolve their problems. In performing this function, the IMF provide two kinds of financial facilities for two different kinds of balance of payment disequilibrium, especially deficit disequilibrium: (i) temporary disequilibrium, and (ii) 'fundamental disequilibrium.' The lending facilities of the IMF are described here briefly.

In the case of a country facing a temporary disequilibrium of deficit nature, the IMF provides loans in terms of country's own currency from its own quota or in terms of foreign currency to help it tide over its balance of payments problems. The member country is entitled to use its own currency to purchase gold from the IMF or foreign currencies equal to the value of its gold quota. However, in case a country is facing fundamental disequilibrium—a large and persistent BOP deficit—it can borrow in excess of its quota provision in terms of gold or foreign currency, up to a limit, of course. Under the IMF conditionality, the fund keeps a strict watch on the macroeconomic policies of the borrowing countries and forces them to reform their economic policies. For example, during the foreign exchange crisis in India in 1990–91, the IMF provided loans on condition that India reform its economic policies.

Check Your Progress

7. Mention the basic objectives of the IMF.
8. State two kinds of financial facilities provided by IMF for deficit equilibrium.

3.6 SUMMARY

- The exchange rate regime refers to an arrangement between nations to determine the exchange rate by mutual agreement and settle their payments by using the rate so determined.
- The exchange rate was determined by the mint parity of gold content in the currencies.
- The basic feature of the gold standard was that the exchange rate was fixed.
- Under the fixed exchange rate system, the exchange rate between any two currencies were fixed in terms of gold and pegged to the US dollar at $ 35 per ounce of gold.
- The fixed exchange rate system was suspended on 18 August 1971 and remained suspended till 18 December 1971.
- The exchange control regime is the regime of direct control of the foreign exchange rate and foreign exchange transactions being confined to the central bank of the country.

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- IMF lending aims to give countries breathing room to implement adjustment policies and reforms that will restore conditions for strong and sustainable growth, employment, and social investment.
- These policies will vary depending upon the country's circumstances, including the causes of the problems.
- Globalization has vastly increased the size of private capital flows relative to official flows and IMF quotas, albeit unevenly so.
- Foreign exchange reserves, also known as forex reserves or FX reserves, refers to the supply of foreign currency held by a central bank or other monetary authorities.
- The Foreign exchange reserves of India are mainly composed of US dollar in the forms of US government bonds and institutional bonds. The main component is foreign currency assets.
- The exchange rate fluctuated wildly during the period of the Great Depression and World War II owing to the scarcity of gold and conflicting internal and external policies of member countries.
- One of the basic functions of the IMF has been to create conditions for the stability of the exchange rate. With this purpose, the IMF established a system of gold exchange standard.
- In the case of a country facing a temporary disequilibrium of deficit nature, the IMF provides loans in terms of country's own currency from its own quota or in terms of foreign currency to help it tide over its balance-of payments problems.

3.7 KEY TERMS

- **Floating exchange rate:** A floating exchange rate or fluctuating exchange or flexible exchange rate is a type of exchange-rate regime in which a currency's value is allowed to fluctuate in response to foreign-exchange market mechanisms.
- **Fixed exchange rate:** A fixed exchange rate, sometimes called a pegged exchange rate, is a type of exchange rate regime where a currency's value is fixed against either the value of another single currency, to a basket of other currencies, or to another measure of value, such as gold.
- **Foreign exchange reserves:** Foreign exchange reserves are reserve assets held by a central bank in foreign currencies, used to back liabilities on their own issued currency as well as to influence monetary policy.
- **Exchange-rate regime:** An exchange-rate regime is the way an authority manages its currency in relation to other currencies and the foreign exchange market. It is closely related to monetary policy and the two are generally dependent on many of the same factors.

3.8 ANSWERS TO 'CHECK YOUR PROGRESS'

1. The exchange rate regime refers to an arrangement between nations to determine the exchange rate by mutual agreement and settle their payments by using the rate so determined.

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2. The basic feature of the gold standard was that the exchange rate was fixed.
3. Inappropriate policies, or a combination of the two may create balance of payments difficulties in a country—that is, a situation where sufficient financing on affordable terms cannot be obtained to meet international payment obligations.
4. If a country's currency depreciates international goods and capital becomes more expensive.
5. Foreign exchange reserves, also known as forex reserves or FX reserves, refers to the supply of foreign currency held by a central bank or other monetary authorities. These reserves are comprised of a variety of international currencies, mostly the United States dollar, the EU's euro, the British pound, and Japanese yen.
6. Foreign exchange reserves of India are mainly composed of US dollar in the form of US government bonds and institutional bonds.
7. The basic objectives of the IMF are as follows:
    - Achieving a balanced expansion of world trade
    - Ensuring stability of the exchange rate
    - Preventing members from indulging in competitive devaluation
    - Assisting members in correcting their BOP problems
8. The two kinds of financial facilities provided by IMF for deficit equilibrium are temporary disequilibrium and fundamental disequilibrium.

3.9 QUESTIONS AND EXERCISES

Short-Answer Questions

1. What do you understand by the term floating exchange rate?
2. What are the various forms of the exchange rate regime?
3. Identify the problems of balance of payments.
4. Write a short note on foreign exchange reserve.
5. Outline the various functions of the International Monetary Fund.

Long-Answer Questions

1. Describe the features of a fixed exchange rate.
2. Explain the concept of exchange rate regime.
3. Discuss the various features of the exchange rate regime.
4. Assess the determinants of foreign exchange reserve.
5. Differentiate between the fixed and floating exchange rate.

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