
UNIT 1 SAVING AND INVESTMENT PROCESS : ROLE OF FINANCIAL SYSTEM

Structure

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1.0 OBJECTIVES

On completion of reading of this Unit, you will be able to:

- State the meaning and structure of the financial system,
- Explain the concepts, techniques and theories of the financial system,
- Describe the impact of financial development on economic development, and
- Explain the evolution of policies on financial development especially since the beginning of liberalisation.

1.1 INTRODUCTION

To understand the financial system, of a country in general and Indian Financial System in particular, we require first of all, a thorough knowledge of the complex inter-relationships between economic activity and financial system. We also require knowledge of the concepts, terminology, organisational aspects and institutional network. All these basic concepts have been discussed in this Unit. This will eventually equip you to understand the financial system of a country.

1.2 THE FINANCIAL SYSTEM

Let us begin to explain the term 'Financial System' itself. Financial system is a system, which facilitates the process

of capital accumulation by transferring financial resources from savers to the investors. With financial resources, the investors create physical assets, viz. land, buildings, plants and machineries.

The financial system transfers the financial resources from savers to investors in two ways:

- i) By mobilising savings of numerous small investors to make them available for productive purposes.
- ii) By intermediating between savers and investors to enable transfer from surplus units, that is savers, to deficit units, that is investors, who buy physical assets with those savings.

For undertaking both of these functions namely intermediation and mobilisation of savings—a large network of financial institutions exist. These institutions form the foundation of the financial system. In course of time, the financial system has expanded and strengthened financial intermediation. **Financial Intermediaries** as they are called, are institutions, which issue their own liabilities and hold as assets the liabilities of the ultimate borrowers, that is investors in physical assets, or of other intermediaries.

The Financial Intermediaries fall into three distinct categories:

- i) Commercial Banks, Cooperative Banks and Non-Banking Finance Companies,
- ii) Long-term investing institutions such as Industrial Development Bank of India (IDBI) and Life Insurance Corporation of India, and
- iii) Special credit institutions set up by the government to provide long-term finance for particular purposes e.g. National Bank for Agricultural and Rural Development.

All these groups compete in capital market for savings and loans.

The financial system has evolved through three stages. The pioneering financial development economist, Raymond Goldsmith (1969), in his classic work has distinguished the stages in terms of scale and composition.

Stage one: The system as it evolved in Europe and North America up to the middle of nineteenth century. During this period, financial institutions accounted for low share of outstanding assets, the financial institutions were limited, commercial banks were the leading institutions and the system did not own risk-capital.

Stage two: The structure is similar to the above but the role

of government became prominent to promote financial transactions. The proliferation of government financial institutions in developing countries is particularly noteworthy in supplying risk capital.

Stage three: The system diversified its structure, instruments and borrowing-lending activity. Financial institutions came to hold assets of higher and higher degrees of risk.

1.3 THE FINANCIAL MARKETS

You know what a market means in common parlance. In economics, however, market has a wider meaning. It goes beyond geographical area within which an asset or a commodity is bought and sold. A market provides the mechanism to bring together the people who demand for and supply of assets, wherever they exist. By this definition, a financial market exists anywhere, provided there is a demander and supplier for funds or a security. However, since the instruments by which these transactions take place grew in variety and in number, a wide network of specialised financial markets have evolved. Broadly, these consist of:

- i) money market, for short-term funds, and
- ii) capital market, including securities market. We are excluding foreign exchange market here.

Money Market is a market for short-term funds, beginning from overnight through 90 days, 180 days to one year. The main institutions operating in this market are the commercial banks, the cooperative banks, and discount house, etc. The Central Bank of the country, namely the **Reserve Bank of India**, acts as the **lender of the last resort**.

Capital Market is a market for medium and long-term funds. It serves the needs of industries, which requires large financial resources for longer time or for investing in physical assets. The instruments traded in this market facilitate transfer of finance from savers to investor. There are a variety of debt instruments. The main institutions operating in this market are:

- i) financial intermediaries, and
- ii) specialised institutions created by government.

Securities Market is by far the highly organised financial market where savers and investors are brought together by what are known as **stock exchange operators** namely, brokers and jobbers. Investors are the demanders comprising the owners of all industries and factories and savers are the

providers of finance comprising households and individuals. The stock exchange brokers and jobbers act as go between. The securities traded in this market, are the shares and debentures. **Primary Securities** are issued by non-financial deficit units (i.e. the corporates) to acquire real physical assets. **Secondary Securities** are issued by financial intermediaries which issue their own secondary securities chiefly to individuals and households. The intermediaries provide several advantages to borrowers as well as lenders in this market. Due to economies of scale in lending and borrowing and by holding large volume of securities as a buffer, the intermediaries are able to endow their own secondary securities with low risk, high liquidity, and assorted package of securities.

In India, the principal intermediaries in this market are:

- Savings Institutions
- Insurance Companies
- Mutual Funds
- Commercial Banks

The Securities Markets are also further sub-divided into **Primary Market** and **Secondary Market**. **Primary Market** is one in which new issues of securities are made. **Secondary Market** is one in which existing (outstanding) securities are traded. The most important feature of secondary market is its 'lead' role. The prices of and yields on the securities traded on this market set the trend in primary market. More importantly, the prices of and yields on shares and debentures of corporate entities in this market act as a guide to corporate investment decisions.

Check Your Progress 1

Note : i) Space is given below each question for your answer.
ii) Check your answer(s) with those given at the end of the Unit.

- 1) State whether following statements are true or false:
 - i) the financial system has evolved through four stages. (True/False)
 - ii) medium-term loans are extended in money market. (True/False)
 - iii) shares and debentures are marketed in the securities market (True/False)
- 2) Name the main institutions which operate in the financial market.

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3) Who do transfer the financial resources into physical assets?

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1.4 FINANCIAL DEVELOPMENT

You will now understand the process of financial development and its relationship with economic development. Financial development refers to the process of expansion of financial superstructure. Financial superstructure, according to the pioneering financial development economist, Raymond Goldsmith, comprises the entire gamut of financial institutions and financial instruments. In a sense, financial superstructure is synonymous with financial system. The main function of the financial superstructure consists of mobilisation and transfer of financial resources to economic activities that generate maximum rate of return on investment. The size of the superstructure is measured by the size of all financial assets. The growth of the superstructure is measured by the ratio of all financial assets to Gross Domestic Product (GDP). Let us recollect that GDP is the value of all the final goods produced in an economy during one financial year.

The financial superstructure has evolved in two mutually related directions:

- Financial Widening, and
- Financial Deepening

Financial Widening refers to the growth in number and size of financial institutions known as financial intermediaries.

Financial Deepening refers to growth of aggregate monetary resources (AMR) in relation to Gross National Product. AMR comprises currency with the public (C_p), demand deposits (D_d), the time deposits (T_d), other deposits with Central Bank (O_d).

Thus, $M_3 = AMR = C_p + D_d + T_d + O_d$

and **Financial Deepening** = $\frac{M_3}{GDP}$

and services produced in a year within the domestic territory of a country.

$\frac{M_3}{GDP}$ is a ratio of liquid liabilities of the financial system to GDP.

Liquid liabilities are demand deposits plus interest bearing liabilities of banks and non-banking companies. In other words, liquid liabilities = M_3 . Thus the ratio $\frac{M_3}{GDP}$ is a measure of financial development.

It may be noted that both financial widening and financial deepening are considered crucial to study the levels of financial development.

1.5 MEASURING FINANCIAL DEVELOPMENT

The standard measures of financial development are described below:

- i) **Financial Intermediation Ratio (FIR)** :- It is the most important measure of financial development. FIR is the ratio of financial institutions' assets to all financial instruments outstanding. The FIR measures the position of financial institutions (intermediaries) in the economy's financial superstructure. It is an indicator of the degree of institutionalisation of the financial structure. A higher FIR indicates higher level of financial development. The ratio also indicates the level of financial deepening.
- ii) **Financial Interrelations Ratio (FIRR)** : This ratio measures the changes in the size of financial assets relative to change in size of tangible assets. Thus, FIRR is the ratio of changes in the size of financial assets to changes intangible assets.

This ratio compares the relative size of the financial superstructure and the real infrastructure.

The data for computing these ratios are available in National Balance Sheets in the flow-of-funds accounts published by Reserve Bank of India. For the Indian financial superstructure, these ratios have been computed from historical data (1860-1977) by Raymond Goldsmith. The ratios behaved as under :

Table 1.1: Financial Development Ratio (1860-1975)

Year	FIRR	FIR	Financial Development Ratio
1860	0.637	0.15	0.49
1875	0.473	0.13	0.44
1895	0.400	0.13	0.51
1913	0.336	0.15	0.63
1920	0.25	0.18	0.14
1929	0.27	0.18	0.20
1939	0.34	0.20	0.33
1946	0.41	0.36	0.53
1950	0.45	0.27	0.33
1960	0.54	0.26	0.50
1970	0.57	0.26	0.57
1975	0.52	0.28	0.66

Source : Raymond Goldsmith (1983). *The Financial Development of India, 1860-1977*: Oxford University Press, Bombay.

Economists have pointed out a number of factors that tend to inhibit financial development. An all encompassing phenomenon which has inhibited financial development is financial repression. **Financial Repression** refers to relatively high degree of official regulation of financial markets. Repression fragments the domestic capital market thereby restricting the pace of real capital formation.

Financial repression creates financial indiscipline among the operators and works through :

- i) ceilings on and differentials in interest rates,
- ii) pervasive credit rationing,
- iii) selective credit policies,
- iv) increase in high-powered money,
- v) restriction to enter into financial market, and
- vi) disintermediation from the banking sector.

Check Your Progress 2

1) What is financial widening?

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2) What does inhibit financial development?

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3) List the standard measures of financial development.

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1.6 FINANCIAL DEVELOPMENT AND ECONOMIC DEVELOPMENT

We have grasped the idea of financial development and its standard measures in the previous section. Let us move a step further and discuss the nature and degree of inter-relationship between financial development and economic development, because understanding of such interrelationship is relevant for formulating and understanding the financial policies of the government.

The role of finance in economic development did not form the core interest of classical economists of the nineteenth century. They held that capital accumulation indeed was the hub of economic growth and argued that savings financed such accumulation. Savings were generated from capitalists' profits and capitalists' savings were automatically turned into capital accumulation. Finance, therefore, had a passive role to play. It was not until 1911 that the active role of finance was brought to the fore. Three landmarks in financial development are worth noting.

The first is the year 1911 itself, in which the Harvard economist Joseph Schumpeter highlighted the role of financial mobilisation. Developing the innovation theory of development, he argued that innovator was the engine of growth, and availability of finance served as the oil of the engine.

The second landmark occurred in 1940 when Raymond Goldsmith provided extensive statistical evidence to the active role of finance.

The third landmark year was the year 1955. Gurley and Shaw brought forth the critical role of intermediaries in the supply of finance to real sector as these intermediaries can also generate surplus loanable funds. Their particular finding was that growth of financial intermediation tends to exceed growth of national product.

With their (Gurley and Shaw) article, there has grown a

whole literature on finance and development linkages. It is worthy to note that we do not come across any study denying the linkage. However, the linkages sought between finance and development fall into two categories: causal role, and complimentary role of financial development.

Basically speaking, the lead role is assumed by financial intermediation. Intermediaries change the ownership of finance by transferring it to productive users. This is brought about by the 'demand following' and 'supply leading' functions of the intermediaries. Under the former, diverse types of financial instruments are created in response to demand for finance by entrepreneurs. Under the latter, the intermediaries take initiatives themselves to transfer funds from surplus units to productive deficit units, viz. the industrial enterprises.

In both cases, funds flow from investment with low returns to those with high returns and the process is governed by the monetary and fiscal policies.

1.6.1 Empirical Evidence on the Linkages

Empirical studies, however, do not strongly support the active role thesis. They find complimentary, rather causal role of intermediaries. For instance, comparison of the correlation between FIR and GNP for developed and developing countries indicates that financial and economic developments are positively related to each other. In a very low-income country like Haiti, the value of FIR was 0.5 while in the United States, it ranged between 4 and 5. For a group of Asian countries, the correlation between FIR and GDP was positive. But, for several African countries, FIR did not correlate with their GDP. An extensive study by Goldsmith also failed to find a correlation between FIR and GDP. Another study too found a mixed relation between the two. Levels of financial intermediation (FIR) positively influenced economic growth in Asian countries but not in Latin American countries.

In the case of India, Mckinnon's complimentary hypothesis was proved valid. In a comprehensive study of 80 countries including India over a thirty-year period, a strong positive correlation between alternative measures of intermediation and alternative measures of economic development was observed.

Yet, another study reported mixed results on complimentary hypothesis. A significant reason for this was that wherever financial reforms are implemented in an inefficient regulatory environment, financial development fails to influence economic development.

Some economists have contended that there is a discernible

causality relation. Financial development leads to economic development and not the other way round.

In brief, available studies on causality hypothesis have concluded that financial development has led to economic development in developing countries across the world. They, thus, support supply leading process of financial development. This conclusion is utilised to promote the policies of financial liberalisation.

1.7 FINANCIAL LIBERALISATION AND FINANCIAL DEVELOPMENT

We have noted in Section 1.5 that financial development is retarded when the constituents of the financial superstructure do not act according to the rule of the market or are constrained by state regulations to do so. Financial repression of the financial markets is the central inhibiting force acting on financial development. This is despite the fact that overwhelming evidences exist to show that other things remaining the same, financial and economic development compliment each other. For this reason international institutions, including World Bank and the International Monetary Fund, have advocated financial liberalisation to accelerate the rate of growth in financially repressed economies.

Financial liberalisation is synonymous for financial reforms and financial deregulation. It is a process of removing distortions in financial markets which are created by unnecessary controls and restrictions. The process consists of :

- i) abolition of ceilings on interest rates on deposits, credits and loans,
- ii) allowing free access to financial markets, and
- iii) removal of restrictions on foreign currency circulation

However, wherever liberalisation has been implemented, it has proved to be a mixed blessing. It is, therefore, essential that countries must learn from the pitfalls in the implementation of reforms in order to strengthen finance and development linkage. Unplanned removal of financial repression would be more detrimental to economic growth than the existence of financial repression. Therefore, the following points should be kept in mind in the wake of financial reforms:

- i) The first and foremost lesson from financial reforms is that it should be tailored to the needs of the existing financial system and macro economic conditions of the country. A

big bang approach, in which the standard measures are suddenly thrust on the countries, should be replaced by gradualist approach. That is, the measures must be administered to the economy in doses. It is being realised that wherever graduation was adopted, reforms have made headway, e.g. India. The adverse effects of big bang were felt severely in Russia.

- ii) Secondly, the reforms should be sequenced. Fiscal reforms must precede financial reforms; domestic market must be opened up before removing interest ceilings; foreign exchange rate must be liberalised before implementing free convertibility on capital account; banking operations must be monitored to be able to control the indiscriminate short term lending.

India is perhaps one developing country where the financial superstructure is highly organised, though the size is small compared to the country's requirement. The financial liberalisation in India has entered gradually and not with big bang. It is gradually removing financial repression.

Check Your Progress 3

Fill up the blanks.

- 1) Financial liberalisation isfor financial reforms.
(synonymous/ anonymous)
- 2) Financial developments..... economic development.
(forwards/backwards)
- 3) Indian financial super structure is highly
(organised/unorganised)

1.8 LET US SUM UP

Financial system facilitates the process of capital accumulation by transferring financial resources from savers to the investors. The process of financial intermediation is accomplished by the network of financial institutions, which are of three distinct categories : (i) commercial and cooperative banks, non-banking financial companies, (ii) long-term investing institutions, (iii) special credit institutions like NABARD.

Financial intermediation is undertaken in the financial markets which consist of money market and capital market.

The size of financial development is measured by the ratio of all financial assets to GDP. Among these ratios, two are important: **Financial Intermediation Ratio (FIR)** and

Financial Interrelations Ratio (FIRR). Financial widening and financial deepening are considered crucial to study the levels of financial development.

On the issue of interrelationship between financial development and economic development, two types of views have emerged; 'demand following' and 'supply leadings'. However, available studies have indicated that financial development has led to economic development in developing countries across the world.

Financial repression inhibits the growth of financial development. The gradual reforms in the financial sector brings the desirable results. Since July 1991, India is gradually removing the financial repressions.

1.9 KEY WORDS

- Financial system** : Refers to a system which facilitates the process of capital accumulation by transferring resources from savers to investors.
- Gross Domestic Product** : The value of all the final goods and services produced in a year within the domestic territory of countries.
- Financial Inter-mediation Ratio** :
$$\frac{\text{Financial Institutional assests}}{\text{Outstanding all financial instruments}}$$
- Financial Inter-relation Ratio** : Ratio of financial assets to tangible assets.
- Monetary Policy** : Policy dealing with the supply of money and credit and interest rates, etc.
- Fiscal Policy** : Policy dealing with the taxes, public expenditure and public debentures.

1.10 SOME USEFUL BOOKS

Bascom, Wilbert O. (1994). *"The Economics of Financial Reform in Developing Countries"*. St. Martin's Press. Inc. New York.

Berthelmy, I.C. and Varoudakis, A. (1996). *"Economic Growth Convergence Clubs, and the Role of Financial Development"*. Oxford Economic Papers Vp. 48: 300-328.

Fry, Maxwell J. (1989), *"Financial Development: Theories and Recent Experience"*. Oxford Review of Economic Policy, Vol. 5: 13-28.

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Patrick, Hugh T. (1966). "Financial Development and Economic Development in Underdeveloped Countries". Economic Development and Cultural Cahgen. Vol. 14 No.2: 174-189.

Shaw, Edward S. (1973). *Financial Deepening in Economic Development*, Oxford University Press, New York.

Sen, Sunanda (1996). "Financial Opening and Real Financial Nexus". Economic and Political Weekly. April 20-27.

1.11 ANSWERS/HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) i) False ii) False iii) True
- 2) Financial intermediaries and specialised institutions created by the government.

3) Investors.

Check Your Progress 2

- 1) Growth in the number and size of financial institutions is known as financial widening.
- 2) Financial repression.
- 3) i) Financial Intermediation Ratio (FIR).
ii) Financial Inter-Relations Ratio (FIRR).

Check Your Progress 3

- 1) Synonymous
- 2) Forwards
- 3) Organised



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UNIT 2 FLOW OF FUNDS

Structure

- 2.0 Objectives
 - 2.1 Introduction
 - 2.2 Flow of Funds
 - 2.2.1 Meaning of Flow of Funds Accounting
 - 2.2.2 Uses of Flow of Funds Accounting
 - 2.2.3 Sources and Uses of Funds Statement for a Sector
 - 2.2.4 Flow of Funds Matrix for the Whole Economy
 - 2.3 Financial Intermediation and Disintermediation
 - 2.3.1 Importance of Financial Intermediation
 - 2.4 Financial Flows in Indian Economy
 - 2.4.1 Instrument-wise Financial Flows
 - 2.4.2 Sector-wise Financial Flows
 - 2.5 Let Us Sum Up
 - 2.6 Key Words
 - 2.7 Some Useful Books
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2.0 OBJECTIVES

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

- Know the system of flows of funds accounting,
 - Appreciate the use of flow of funds accounting,
 - Evaluate the significance of borrowing and lending relationship between all the sectors, and
 - Describe the nature of financial flows in the Indian economy.
-

2.1 INTRODUCTION

We have learnt the basic concepts like financial system, financial development, etc. in the previous Unit. The economic activities and financial system are inter-related because funds flow from one sector to the other through the process of financial intermediation. Thus, the concept of flow of funds is very significant in this context. Before proceeding further let us try to know it.

Flow of funds accounting combines income statements and balance sheets of a sector of the economy to construct sector sources and uses of funds statement. We can combine these statements of all the sectors in an economy to frame the flow of funds matrix for the whole economy. The flow of funds matrix for the whole economy is an interlocking grid of sector sources and uses statements. It shows borrowing and lending relationships between all the sectors. By examining it, we can analyse who lent to whom, and who borrowed from whom.

2.2 FLOW OF FUNDS

Accounting of flow of funds is used to analyse borrowings and lendings in financial markets. It traces financial transactions by recording the payments each sector makes to other sectors and the amounts it receives from them.

2.2.1 Meaning of Flow of Funds Accounting

Flow of funds accounting is a record of payments between various sectors of the economy. This record is prepared with the help of "sources and uses of funds" statements of the various sectors.

2.2.2 Uses of Flow of Funds Accounting

Flow of funds accounting is put to different uses.

- i) It is very useful in analysing what happens in various financial markets.
- ii) It traces the financial flows that interact with and influence the "real" saving-investment process.
- iii) It records the financial transactions underlying real saving and investments.

2.2.3 "Sources and Uses of Funds" Statement for a Sector

A "sources and uses of funds" statement for a sector is simply the integration of its income statement with its balance sheet.

A simplified income statement for any sector would look like as follows:

Table 2.1 : An Income Statement for a single Sector

Uses of Funds (on current account)	Sources of Funds (on current account)
Current Expenditure/Savings (Addition to net Worth)	Current Receipts
Total	equals Total

An income statement like the one in Table 2.1 above simply records a sector's receipts during a period of time as a source (inflows) of funds, and its current expenditure as its uses (outflows) of funds.

Current receipts would be different for different sectors of

the economy. For the Household Sector, current receipts consist mainly of wages and salaries; for the Business Sector, these would consist of sales receipts, and for the Government Sector, these would consist of tax revenues.

Likewise, the current expenditures of different sectors also differ. Saving, on the 'use' side, is defined as an excess of current receipts of a sector over its current expenditure.

Saving, hence, serves as a balancing entry in an income statement. Thus, the sum of the uses of funds equals the sum of the sources of funds.

Income statements show current receipts and expenditures over a period of time (say, during the year 2000). **A balance-sheet**, on the other hand, shows assets and liabilities at a point of time (say, on December 31,2000). A simplified balance sheet for a single sector would look like in Table 2.2

Table 2.2 : Balance Sheet for a Single Sector as on (say December 2000)

Assets	Liabilities and Net Worth
Financial Assets a. Money b. Others	Liabilities
Real Assets	Net Worth
Total	equals Total

As with income statements, the principal difference between the balance sheets of different sectors relates to the composition of assets and liabilities. Like income statements, balance sheets always balance; i.e., the sum of assets equals the sum of liabilities and net worth. Net worth is defined as the different between assets and liabilities.

To analyse financial trends during a year, we need data on flows over a period of time. We cannot work with stocks as listed in a balance sheet. The stocks listed in a balance sheet can be converted into flows. For this purpose, we need two balance sheets of the same sector at two different points of time; for example, Balance Sheet as on 31.12.2000 and as on 31.12.2001. By comparing them, and recording the changes that have taken place in the values of each of the items, we can convert stocks into flows.

The change (Δ) between two dates could be represented like as in Table 2.3

Table 2.3 : Sources and Uses of Funds Statement on Capital Account

Uses of Funds (on Capital Account)	Sources of Funds (on Capital Account)
Δ Real Assets (Investment)	Δ Net Worth (Saving)

On the **uses side**, the change in real assets refers to capital expenditure. Capital expenditures involve the purchase of **real assets**, or what is also called investment.

On the **sources side**, the change in a sector's net worth during a period is exactly the same thing as "saving on its income statement covering that time interval.

It may further be noted that the totals on the two sides, i.e. uses side and sources side, may not tally. It means that an individual unit or sector may or may not invest just equal to its current saving. If a unit or sector invests an amount equal to its current saving, it is called a **Balanced Budget Sector**. If it saves more than it invests, it is called a **Surplus Sector**. If it invests more than it saves, it is called a **Deficit Sector**.

How could a sector invest more than it saves? One way is simply to borrow enough to finance its deficit, which brings us to the other pair of balance sheet entries - liabilities and financial assets. Such changes between two Balance Sheets would look like as in Table 2.4

Table 2.4: Sources and Uses of Fund's Statement on Capital Account

Uses of Financial Funds (on Capital Account)	Sources of Financial Funds (on Capital Account)
Δ Financial Assets other than money (lending)	Δ Liabilities (borrowing)
Δ Money (hoarding)	

For a sector, we can prepare a complete statement of sources and uses of funds by piecing together Tables 2.1, 2.3 and 2.4 as done in Table 2.5 below:

Table 2.5 : Complete Sources and Uses of Fund's Statement for a Sector

Uses of Funds	Sources of Funds
Current Expenditures Saving (addition to NW)	Current Receipts
Δ RA (Investment)	Δ NW (Saving)
Δ FA (Lending)	Δ L (Borrowing)
Δ M (Hoarding)	
Total	Equals Total

Above the line is the income statement, below the line, the changes in the balance sheet. The 'uses of funds' must equal the 'sources of funds'.

We can now identify the sources and uses of funds for a sector as under :

i) **Sources of funds consist of :**

- a) current receipts
- b) any increase in a liability item (borrowing)
- c) any decrease in an asset item (selling off assets, dishoarding)

ii) **Uses of funds consist of :**

- a) current expenditures
- b) any increase in an asset item - increased holdings of real assets (investment) or financial assets (Lending), or of money (hoarding), or
- c) any decrease in a liability item (debt repayment)

iii) **For any one sector :**

Investment + lending + hoarding = saving + borrowing

So if :

Saving > investment, then lending + hoarding > borrowing

And if :

Investment > saving, then borrowing > lending + hoarding

2.2.4 Flow of Funds Matrix for the Whole Economy

We can prepare flow of funds matrix for the whole economy by piecing together uses and sources of funds statements for individual sectors. One sector's payments become another sector's receipts. When we put all these individual sector statements together, we get a flow of funds matrix for the economy as a whole. It is an interlocking grid that reveals financial relationships among all the sectors.

Assuming a total of three sectors, the flow of funds matrix would appear as follows:

Flow of Funds Matrix for the whole economy

	Sector A	Sector B	Sector C	All Sectors
Saving (Δ NW)	μ S s	u S s	u S s	u S s
Investment (Δ RA)	i	i	i	I
Borrowing (Δ L)	b	b	b	B
Lending (Δ FA)	l	l	l	L
Hoarding (Δ M)	$\Sigma^h = \Sigma$	$\Sigma^h = \Sigma$	$\Sigma^h + \Sigma$	$\Sigma^h + \Sigma$

Note : The small letters within the matrix represent the data for saving(s), investment (i), borrowing (b), lending (l), and hoarding (h) and are placed in the appropriate spaces where such data would be entered. The capital letters simply represent the aggregate sum totals for the whole economy. Thus, $s + s + s = S$, $i + i + i = I$, etc. The letters represent uses and sources of funds.

For the whole economy :

Investment + lending + hoarding = saving + borrowing
 But since one sector's financial asset is another sector's liability:
 Lending + hoarding = borrowing
 Therefore : Investment = saving

The conclusion that savings must equal investments applies only to the entire economy taken in the aggregate, not to any single sector by itself. Any single sector may save more than it invests, or may invest more than it saves. But since savings must equal investments for the economy as a whole, it follows that for each sector that saves more than it invests, there must, somewhere, be other sectors that invest correspondingly more than they save.

Check Your Progress 1

1) What do you mean by flow of funds?

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2) Mention the uses of flow of funds accounting.

.....

3) What does the income statement of a sector indicate?

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4) What does the balance sheet of a sector indicate?

.....

5) What does the flow of funds matrix of an economy show?

.....

2.3 FINANCIAL INTERMEDIATION AND DISINTERMEDIATION

The function of the financial markets is to bring surplus sectors in contact with the deficit sectors. Financial markets provide the transmission mechanism between savers-lenders and borrowers-spenders. Financial institutions mobilise the savings and channel them into the hands of borrowers who need more funds than they have on hand.

Savers stand to benefit because they earn interest or dividends on their funds. Borrowers stand to gain because they get access to money to carry out investment plans they otherwise could not finance. Without financial markets, savers would have no choice but to hoard their excess money, and borrowers would be unable to implement any investment plans except those they could finance with their own resources.

In the financial markets, ultimate lenders are typically households, although from time to time business firms and government bodies also lend substantial amounts. Ultimate borrowers are mostly business firms and governments, although households are also important borrowers as they seek consumer credit and mortgage borrowings.

The financial market in which the transaction takes place is generally named according to the nature of the securities issued by the borrowers', e.g. the government securities market, the capital bond market, the stock market, and so on.

Financial institutions that operate in the financial markets are called financial intermediaries. Some examples of financial intermediaries are commercial banks, mutual funds,

chit funds, non-banking finance companies, provident funds, etc. These act as agents, transferring funds from ultimate lenders to ultimate borrower. Financial intermediaries, in brief, intermediate between ultimate lenders and ultimate borrowers.

Financial disintermediation is the reverse process. Savers take funds out of their bank deposit accounts, or reduce the amounts they normally put in them, and invest directly in primary securities, such as stocks and bonds.

2.3.1 Importance of Financial Intermediation

Financial intermediaries play an important role in the spread and growth of the financial system, and to that extent make a substantial contribution in the process of economic growth.

- i) Financial intermediaries are in a better position than individuals to diversify the risks of primary securities ownership. Because of their large size, intermediaries can diversify their portfolios and minimise the risk involved in holding any one security. They are experts at evaluating borrower's credit worthiness. They employ skilled portfolio managers and can enjoy the advantage of economies in large-scale buying and selling.
- ii) Competition among financial intermediaries forces interest rates to the lowest level compatible with the intermediaries' evaluation of the risks of security ownership. These yields are lower than if the primary securities were held by individual investors, who are unable to minimise their risks as efficiently.
- iii) The beneficial effect of intermediation on economic growth can also be seen from the viewpoint of risk bearing. Financial intermediaries are better able than individuals to bear the risks of lending.

Check Your Progress 2

- 1) What do you mean by financial intermediation?
.....
.....
.....
- 2) How is financial disintermediation different from financial intermediation ?
.....
.....
.....

- 3) Highlight the importance of financial intermediation in the process of economic growth.
-
-
-

2.4 FINANCIAL FLOWS IN INDIAN ECONOMY

The principal source of data relating to financial flows in the Indian economy is the Reserve Bank of India. The Reserve Bank of India prepares estimates relating to, among other, instrument-wise financial flows and sector-wise financial flows. We will make use of these data to highlight the important features of the financial flows in the Indian economy.

2.4.1 Instrument-wise Financial Flows

The data relating to instrument-wise flows of funds is summarised in Table 2.6 (Please see Table 2.6 given in the end). The total net financial flows in the Indian economy increased from Rs. 3,771 crore during 1966-67 to Rs.4,34,308 crore during 1995-96.

In terms of their quantitative importance, different financial liabilities in India can be ranked in the descending order as follows:

Table 2.5 : Instrument-wise financial flows

Rank (Descending Order)	Instrument
1	Loans and Advances
2	Currency and Deposits
3	Investments
4	Provident Fund
5	Life Fund
6	Small Savings
7	Trade Debt or Credit

Loans and advances are the principal sources of financial flows in the Indian economy. Currency and deposits with the banking system come second.

Over the years, the share of currency and bank deposits, securities of other financial institutions, and corporate

securities in the total liabilities have increased marginally. On the other hand, the share of loans and advances and Government securities has declined.

2.4.2 Sector wise Financial Flows

Sector wise matrix of financial flows in the Indian economy is presented in Table 2.7

It must be noted from the Table 2.6 that households are the principal source of funds in the Indian economy, while the banking sector is placed second followed by other financial institutions, rest of the world, Government, and the private corporate business.

Among the users of the funds, the government has been the principal agency, closely followed by the private corporate business. Banking sector and other financial institutions too have been significant users.

Over the years, the share of banking and other financial institutions in the total sources of funds has increased, and that of private corporate business, government, and households has declined.

Check Your Progress 3

- 1) What are the main features of instrument-wise financial flows in the Indian economy?
.....
.....
.....
- 2) Mention the main features of sector-wise financial flows in the Indian economy.
.....
.....
.....

2.5 LET US SUM UP

- 1) Flow of funds accounting combines sector income statements and balance sheets to construct sector sources and uses of funds statements.
- 2) Any one sector can save more or less than it invests, or lend more or less than it borrows. One that saves more than it invests is called a surplus sector; it may be a net lender. One that invests more than it saves is called a deficit sector; it may be a net borrower.

- 3) For the whole economy, however, saving must equal investment and lending plus hoarding must equal borrowing.
- 4) The flow of funds matrix for the whole economy is an interlocking grid of sector sources and uses statement. It shows borrowing and lending relationships between all the sectors. By examining it, we can analyse who lent to whom and who borrowed from whom.
- 5) Financial intermediation involves financial institutions acquiring funds from the public by issuing their own liabilities and then using the funds to buy primary securities. Disintermediation is the reverse process; savers take their funds out of financial institutions and buy the primary securities directly themselves.
- 6) Financial intermediation leads to lower interest rates, because financial institutions can bear the risks of primary security ownership better than individuals can. They also enjoy economies of scale and possess more skilled management skills than is available to most individuals acting on their own.

2.6 KEY WORDS

- Balanced Budget Sector** : A sector whose investment equals its savings.
- Deficit Sector** : A sector which invests more than it saves.
- Financial Capital** : The liquid as opposed to physical assets of a company.
- Financial Instrument** : Any document which is evidence of debt, transfer of which enables the seller to acquire finance.
- Financial Intermediary** : Any operator engaged in bringing together ultimate providers and ultimate users of finance.
- Financial Ratios** : Ratios between particular groups of the assets or liabilities of an enterprise and corresponding totals of assets or liabilities, or between assets or liabilities and flows like turnover or revenue.
- Flow of Funds Accounting** : It combines sector income statements and balance sheets to construct sector sources and uses of funds statements.

- Intermediation Ratio** : It is the ratio of secondary issues to primary issues.
- Surplus Sector** : A sector which saves more than it invests.

2.7 SOME USEFUL BOOKS

Goldsmith, R.W. (1983), *The Financial Development of India*, Oxford University Press, Delhi

Bhole, L.M. (1985), *Impact of Monetary Policy*, Himalaya Publications, Mumbai

Robinson, R.I. and Wrihsman, D. (1981), *Financial Markets*, McGraw Hill, London, pp.93-121

Reserve Bank of India, Bulletin (Various Issues): *Report on Currency and Finance* (Annual), Annual Report

Dhingra, I.C. (2001), *The Indian Economy*, Sultan Chand & Sons, New Delhi

2.8 ANSWERS/HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) Flow of funds refer to income statements and balance sheet of a sector/the whole economy.
- 2) i) Enables to know the developments in financial market.
ii) Aprises us with real saving investment process.
iii) Recording the financial transaction process.
- 3) See Sub-section 2.2.3
- 4) See Sub-section 2.2.3
- 5) See Sub-section 2.2.4

Check Your Progress 2

- 1) Financial intermediation refers to a process of transferring financial resources from the savers to the investors.
- 2) Financial disintermediation is a reverse process of financial intermediation. Savers withdraw their bank deposits and invest directly in primary securities.
- 3) See Sub-section 2.3.1.

- 1) The Total net financial flows in Indian Economy has increased about 115 times during the period 1966-67 and 1995-96. In quantitative terms, loans and advances rank highest followed by currency and deposits, investments, provident fund life fund, small savings, trade debt or credit.
- 2) Sector-wise households are the principal sources of funds followed by the private corporate business, banking and other financial institutions are the significant users.



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Table 2.6 Financial Flows—Instrument-wise

Instrument / Sector	Banking		Other Financial Institutions		Private Corporate Business		Government @		Rest of the World		Households		Total		Discrepancy (Sources-Uses)
	Sources	Uses	Sources	Uses	Sources	Uses	Sources	Uses	Sources	Uses	Sources	Uses	Sources	Uses	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
FINANCIAL FLOWS : 1995-96**															
1. Currency of Deposits	76,825	1,416	12,494	8,999	2,887	12,588	7,674	3,968	255	3,683	—	69,718	1,00,135	1,00,372	-237
2. Investments	2,765	34,835	9,338	56,482	39,574	1,230	46,858	1,078	-10,001	16,283	—	9,546	88,534	1,19,454	-30,920
a. Central and State Governments Securities	—	38,090	—	40,648	—	-442	46,441	—	—	9	—	28	46,441	78,333	-31892
b. Other Government Securities	—	-1,192	—	-1,699	—	—	417	—	—	—	—	581	417	-2,310	2,727
c. Corporate Securities	—	466	—	16,342	39,574	—	—	886	—	16,274	—	5,083	39,574	39,051	523
d. Bank Securities	2,765	—	—	3,055	—	2,39	—	-467	—	—	—	112	2,765	2,939	-174
e. Other Financial Institutions Securities of which	—	-1,851	9,338	—	—	-457	—	726	—	—	—	3,742	9,338	2,160	7,178
† Mutual Funds (including units of UTI)	—	—	-1,785	—	—	—	—	—	—	—	—	606	-1,785	606	-2,391
f. Foreign Securities	—	-625	—	96	—	389	—	—	-10,001	—	—	—	-10,001	-140	-9,861
g. Others	—	-53	—	1,960	—	1,501	—	-67	—	—	—	—	—	-579	579
3. Loans and Advances	9,621	51,020	32,206	66,256	85,488	26,839	11,282	9,301	45	-3,757	25,466	—	1,64,108	1,49,659	14,449
4. Small Savings	—	—	—	38	—	—	9,187	—	—	—	—	9,149	9,187	9,187	—
5. Life Fund	—	—	12,768	—	—	—	1,70	—	—	44	—	13,894	13,938	13,938	—
6. Provident Fund	—	—	13,498	—	—	8,794	—	—	—	—	—	22,292	22,292	22,292	—
7. Compulsory Deposits	-7	—	—	—	—	—	—	—	—	—	—	-7	-7	-7	—
8. Trade Debt or Credit	—	—	534	—	-140	—	388	-501	—	—	—	394	782	-107	889
9. Foreign claims not elsewhere classified	—	-5,308	—	—	—	—	—	509	1,740	-5,895	—	—	1,740	-10,694	12,434
10. Other items not elsewhere classified	-13	40,595	9,087	6,422	18,850	609	5,675	819	—	—	—	—	33,599	48,445	-14,846
TOTAL	89,191	1,22,558	89,925	1,38,197	1,46,659	41,266	91,028	15,174	-7,961	10,358	25,466	1,24,987	4,34,308	4,52,539	-18,231

a Excludes Local Authorities except Port Trusts.

** Tentative Estimates.

Source : RBI : Report on Currency and Finance

Table-2.7: FINANCIAL FLOWS - SECTOR-WISE

Sector/Financial Transactions with other sectors	Banking		Other Financial Institutions		Private Corporate Business		Government @		Rest of the World		House-holds		Total	
	Source	uses	Source	uses	Source	uses	Source	uses	Source	uses	Source	uses	Source	uses
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
FINANCIAL FLOWS 1995-96**														
1. Banking	-	-	11,909	7,091	54,694	4,450	30,823	4,290	10,001	-2,006	22,642	56,615	1,10,067	70,380
2. Other Financial Institutions	11,274	11,337	-	-	45,673	-457	8,384	2,344	-9	5,128	2,207	42,197	67,529	47,875
3. Private Corporate Business	2,156	22,082	-754	62,736	-	-	-	2,319	-	11,978	342	5,976	1,745	1,05,091
4. Government	7,587	39,959	3,304	48,912	7,372	7,935	-	-	324	1,169	275	20,198	18,862	1,18,173
5. Rest of the World	4,850	-5,933	11,990	4,226	4,549	389	12	97	-	-	-	-	21,401	1,221
6. Households	56,615	22,642	42,197	2,207	5,976	342	20,198	275	-	-	-	-	1,24,986	25,466
7. Sector not elsewhere classified	6,709	45,145	21,279	13,025	28,395	28,607	31,610	5,849	1,725	5,851	-	-	1,24,986	-
Total	89,191	1,22,558	89,925	1,38,197	1,46,659	41,266	91,028	15,174	7,961	10,358	25,466	1,24,986	4,34,308	4,52,539
(Sources - Uses) \$		-33,367		-48,272		1,05,393		75,854		18,319		99,520		-18,231

@ Excludes Local Authorities except Port Trusts.

\$ Financial Surplus (-) : Financial Deficit (+)

** Tentative Estimates.

Source : RBI : Report on Currency and Finance

UNIT 3 DETERMINANTS OF INTEREST RATES

Structure

- 3.0 Objectives
- 3.1 Introduction
- 3.2 Pure Interest and Gross Interest Rates
- 3.3 Bond Price and Yield to Maturity
- 3.4 The Term Structure of Interest Rates
- 3.5 Factors Affecting Market Interest Rates
- 3.6 Effects of Changes in Interest Rates
- 3.7 Let Us Sum Up
- 3.8 Key Words
- 3.9 Some Useful Books
- 3.10 Answers/Hints to Check Your Progress Exercises

3.0 OBJECTIVES

After studying this Unit, you will be able to:

- Explain the concepts, like pure and gross interest rates, bond price etc.,
- Summarise the important theories of term structure of interest rates,
- Identify the factors influencing market interest rates, and
- Describe the effects of changes in interest rates.

3.1 INTRODUCTION

Borrowing and lending in the financial market depend to a significant extent on the rate of interest. In economics, interest is a payment for the services of capital. It represents a return on capital. In other words, interest is the price of hiring capital. Capital, as a factor of production, takes the form of machinery, equipment or any other physical assets used in production of goods. On the other hand, funds must be made available to the entrepreneurs for buying these physical assets. Purchase of capital assets is called investment and funds made available for the purchase of such capital assets is called financial capital. Some persons have to supply this financial capital to the entrepreneurs who would use it for investment in real capital assets. The payment to those who supply financial capital for its use is called the **market rate of interest**. This is expressed as a percentage of sums of funds borrowed. On the other hand, the entrepreneur who buys capital equipment and uses it in the process of production gets addition to his revenue, which is called **return on capital**. The return on capital is the addition to production which increases his revenue.

3.2 PURE INTEREST AND GROSS INTEREST RATES

According to Prof. Meyers, interest is the price paid for the use of loanable funds. Different rates of interest are charged for the same sum of loan for the same period because of the fact that some loans involve more risk, more inconvenience and more incidental work. Thus interest is of two types : *pure interest* and *gross interest*. The **pure interest** is the payment for the use of money as capital when there is neither inconvenience, risk nor any other management problem.

Whereas, **gross interest** is the gross payment which the lender gets from the borrower. It includes not only net interest but also payment for other elements, which have been outlined below.

Elements of Gross interest

- i) **Payment for risk** : Every loan, if not secured fully, involves risk of non- payment due to the inability or unwillingness of the borrower to pay back the debt. The lender charges something extra for taking such risk.
- ii) **Payment for inconvenience** : The moneylender may add extra charges for the inconvenience caused to him. The greater the inconvenience involved, the higher will be such charge and consequently the gross interest. For instance, the borrower may repay at a very inconvenient time to the lender or the borrower may invest the capital for a period longer than the one for which loan has been given.
- iii) **Payment for management** : The lender expects to be compensated for the additional work he has to do in connection with lending e.g., the form of keeping accounts, sending notices and reminders and other incidental work.
- iv) **Payment for exclusive use of money, i.e. pure interest**: It is the payment for the use of money which is in addition to payments for the above-mentioned risks, inconvenience and management.

In short, gross interest is the total payment which the lender gets from the borrower, whereas, net interest is just one part of gross interest which is paid exclusively for the use of capital. According to Keynes, interest is purely a monetary phenomenon and its rate is determined by the monetary forces of demand and supply. Interest is the reward for capital and is the payment made to the supplier of capital for the use of this factor in the process of production.

3.3 BOND PRICE AND YIELD TO MATURITY

Price of a bond moves inversely to the yield to maturity. Therefore, the best approach to predict the bond price is to first know its yield of maturity. The yields of maturity of all bonds are dependent upon market interest rate, which fluctuates frequently. These fluctuations arise from factors which are internal as well as external to the firm using the funds.

- 1) **Internal Factors** : The probability that the investor in bond might suffer from default or bankruptcy of the issuer is called **default risk**. Default risk is that portion of an investment's total risk that result from changes in the financial solvency of the investment. For example, when a company that issues security moves close to bankruptcy, this change in the firm's financial solvency is reflected in the market price of its securities. The variability of return that investor experiences as a result of changes in the credit worthiness of a firm that issues the investment securities is their **default risk**. Default risk can be further divided into: (i) business risk, and (ii) financial risk.
 - i) **Business risk** : It refers to the variability of operating incomes or earning before interest and taxes. It is influenced by demand variability, price variability and operating leverage.
 - ii) **Financial Risk** : It represents the risk arising from the use of debt capital. If the firm depends heavily on debt capital, it will have high degree of financial risk exposure.
- 2) **External Factors** : These factors affect bonds simultaneously. Change in the supply and demand for credit, changes in the macroeconomic environment (also called **market risk**) are factors external to the individual corporations, which affect their bond yield and prices. These factors determine the level and structure of market interest rates, and thus, bond prices.

i) **Purchasing Power Risk**

An increase in the amount of currency in circulation may result in sharp and sudden fall in its value. Purchasing power risk denotes the fact that an investor's money may lose its purchasing power because of inflation. To understand purchasing power, first, we will see how inflation can be measured. Economists measure the rate of inflation by using **Price Index**, which is prepared by government agencies. Such Price Index measures the cost of a representative basket of consumer goods, which include food, clothing, housing and health care products, which are bought by average urban households. Prices of the goods change from

month to month. The amount of that change is stated as a percentage and thus the resultant figure is that of inflation. In other words it is the *difference between the price index of a commodity in two months divided by the price index in the previous month*. Thus, we may call the inflation rate of the month, which is converted into annual inflation. For example if inflation is 1% then annual inflation will be $(1+1.0\% \text{ per month})^{12} - (1.01)^{12} = 1.1268 - 1 = 12.68\%$

The goods which have strong demand will experience faster rate of inflation than the goods that are not in strong demand.

ii) Real Return/Nominal Return

After inflation is measured, it should be compared to investment return. An investment's nominal rate of return is money rates of return, that is, they are not adjusted for the effect of inflation. Take up a numerical problem to understand. We assume that a saving deposit earns a nominal interest rate of 5% during one-year period. Thus, if Rs. 100 are deposited, it would grow to $100 (1 + 0.05) = \text{Rs } 105$ in a year. If we also assume that rate of inflation is 5% then the real value (in term of current purchasing power) of Rs. 100 saving at end of the year is still 100 after we divide the nominal rate by the inflation rate to get the real rate

$$100 (1.0 + 0.05 / 1.0 + 0.05) = \text{Rs. } 100$$

In this case, the nominal rate of return and inflation rate are same. A wise investor should compare the inflation rate with the nominal rate of return from different investment to see if the investment's real rate of return is positive or negative.

Investors should focus on real returns so as

- i) to avoid being fooled by the money illusion fallacy, and
- ii) to detect those investments that will maximize their purchasing power.

The saving's purchasing power will not increase even though there will 5 percent more rupees in it.

iii) Market Risk

Market ups and downs are usually measured by using a Security Market Index. When a security index rises fairly consistently for a period of time, this upward trend is called a **Bull Market**. The bull market ends when the market index reaches a peak and starts a downward trend. The period of time during which the market declines is called **Bear Market**. Market risk arises from this variability in market return, which results from the alternating bull and

bear market forces. The main element that causes the stock market to rise 'bullishly' and then fall 'bearishly' again and again, is the fact that the nation's economy follows a cycle of recessions and expansions.

Market yield to maturity are determined by many things. The most basic determinant of interest rate is what economists call the real rate of interest, or the rate at which capital grows in the physical sense. In addition to the real rate of interest, market interest rate are also affected by various risk premiums which investors may demand. In order to undertake risky investments, lenders may requisite one or more risk premiums to be paid over and above the real rate of interest to induce them to lend their funds when the risk of loss exist.

Since the interest rates and loans are typically in nominal money quantities, rather than real physical quantities, the nominal interest rate must contain an allowance for the rate of price changes so that lender's wealth is not be eroded away by inflation.

Level of interest rate is determined by

Nominal or market interest rate = real rate of interest + various possible risk premium + expected rate of return

Although, the rising rates of inflation push up the interest rate, but sometimes, changes in interest rates are not related to inflationary factors but, are result of various risk premiums, changes in supply of and demand for loanable funds. During a period of economic expansion, the unemployment rate falls, business activity quickens and business needs more money finance for purchase of machinery and to build bigger plants. This results into higher interest rate. In contrast, during slowdowns and recession, unemployment increases, manufacturing activity slows and demand for credit decreases. This results into fall in interest rate, if all other factors are constant.

The combined effect of changes in inflationary expectation and changing credit market conditions causes the level of market yield to vary over a wide range from year to year. Any bond issuer usually has, on any given day, different yield to maturity on its various bond issues, which will differ in terms of maturity. For a given bond issue, the structure of yield for bonds vary with different terms to maturity, but no other difference is called term structure of interest rate.

When two bonds are alike or nearly so in all respects except time to maturity, they usually set at different yield because of the difference in their maturities. The relationship between

yield and maturity is known as **term structure of interest rate**. A plot of this relationship is known as **yield curve**

The level of inflationary expectations and the phase of business cycle are two of the main factors, usually affecting interest rates. But various kinds of risk premiums, which rise and fall, can also have an important effect on market interest rates.

iv) **Yield Spread**

A yield spread is the *difference between the promised yields on any two bond issues or classes of bonds*. Yield spread may also be called risk premiums because they measure the additional yield that risky bonds pay to induce investors to buy more-risky bonds, rather than less risky bonds. Yield spread, other than spreads between different maturities are caused primarily by difference in risk and taxability, but they are also influenced by anything that affects the supply of and demand for various kinds of bonds.

Risk premiums are higher when economic conditions are not favourable. During recession, fear of job loss and risk aversion are higher. Therefore, most investors demand large risk premiums to induce them to buy risky bonds.

Secondly, the corporation which issues bonds, typically experiences reduced sales and profits during recession. Since the issuers are more subject to bankruptcy during recession, investors require larger risk premiums.

Thirdly, the daily sale and purchase of bonds by bankers and investment managers have a substantial impact on yield spread. Most of these financial experts scrutinize the political developments, which have economic financial implications. When a country is involved in a war, it usually spends more on war. Most governments finance their deficits by printing new money which results into inflation which exerts harmful effects upon the economy of the country.

Check Your Progress 1

1) What is the difference between Gross Interest and Pure Interest?

.....

2) State whether following statements are true or false?

- i) There is a direct relationship between price of a bond and its yield to its maturity. (T/F)
- ii) Risk arising from the use of debt capital is known as financial risk. (T/F)

iii) Changes in macro-economic environment does not affect the bond yield and prices. (T/F)

3) How is the rate of inflation measured?

.....
.....
.....

4) What do you understand by the term 'Yield Spread'?

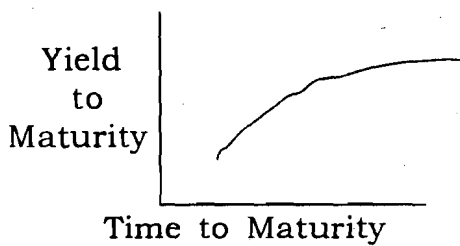
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3.4 THE TERM STRUCTURE OF INTEREST RATES

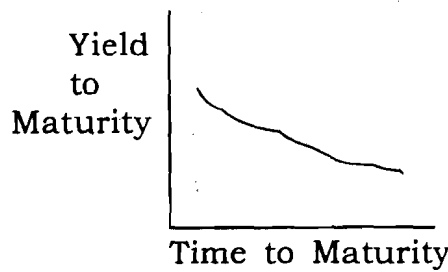
In addition to changes in the level of interest rate, which arise due to changes in the rate of inflation, unusual risk premiums, changing credit conditions, there are changes, which are termed as the 'term structure of interest rate'. For a given bond issuer, the structure of yield for bonds with different terms of maturity is called the 'term structure of interest rates'. The term structure of interest rate, or 'yield curve', as it is called, may be defined as the *relationship between yields and maturities of bonds in given default risk classes*. The relationship is usually presented graphically as 'Yield Curve'. The yield curve changes a little everyday and there are different yield curves for each class of bonds. The yield curve for the riskier classes of bonds are at a higher level than the yield curve for less risky bonds. The difference in levels is due to the difference in risk premium. The yield curves for riskier bonds are not so stable.

There are two types of yield curves as presented in figure (A) and (B). On the vertical axis in both the figures, yield to maturity from a security is drawn, whereas, on the horizontal axis time to maturity is drawn. There is a positive relationship between the yield to maturity and the time to maturity, if yield to maturity increases as time to maturity increases. This positive relationship between yield to maturity and time to maturity is shown in figure (A), and the yield curve obtained from this relationship is called as '**normal yield curve**'. The 'normal yield curve' is called so, because it is more common.

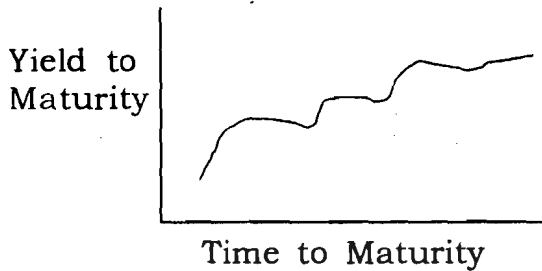
However, sometimes, the relationship between the yield to maturity and time to maturity is not positive. This results in a downward sloping yield curve (as shown in figure B). This downward sloping yield curve is known as '**inverted yield curve**'.



(A)
Normal Yield Curve



(B)
Inverted Yield Curve



(C)
Humped Yield Curve

The above-mentioned yield curves are simplified versions of yield curves. In the practical world however, the shape of yield curves is much more complex and sometimes it takes the shape of 'humped curve' [as shown in figure (C)].

There are three theories about how the shape of yield curve is determined.

1) **The Liquidity Preference Theory**

According to Liquidity Preference Theory, lenders prefer short-term securities over long term securities, unless the yield on the longer-term securities are high enough to compensate for the greater interest rate risk. Risk is related to variability of return or dispersion of market value. So interest rate risk increases with term to maturity of a bond. The long-term bonds have more interest rate risk than short-term bonds because of their long duration and because their interest elasticity is larger. As a result, the prices of long-term bonds fluctuate more than the prices of short-term bonds. The large price fluctuations are the basis of liquidity premium hypothesis.

Unlike lenders, borrowers show a preference for long-term securities. They (borrowers) will borrow on a relatively short-term securities only if these are available at smaller interest rates.

Thus, generally, lenders are averse to long-term securities (because of the higher risk involved), and borrowers are averse to short-term securities. These aversions on the part of lenders and borrowers influence the term structure of

interest rates. However, the term structure on interest rates is likely to vary over time, as the degree of these aversions varies. Thus, the degree of these risk aversions influences the shape of yield curve also. With an increase in the risk aversion on either or both the parties, yield curve moves upward and vice-versa. However, Cooper and Fraser (1990) noticed that, liquidity preference, by itself, couldn't account for a downward sloping yield curve. Maturity preferences by the borrowers and lenders, their expectation regarding future yields etc. are other explanatory factors. However, there are other theories, which have attempted to identify these factors. These theories are discussed as follows.

2) Expectations Theory

The Expectation theory hypothesises that investors' expectation alone shape the yield curve. This theory assumes that the yield on a long-term bond is an average of the short-term yields that are expected to prevail over the life of the long-term bond. Its validity rests on the assumption that investors are indifferent to any variation in risks associated with different maturities. They consider long term and short-term bonds to be perfect substitutes for one another, and, therefore, move freely from one maturity to another always looking for highest expected return. This implies that when all investors expect the rates to -

- i) rise, the yield curve would slope upward
- ii) remain unchanged, the yield would be horizontal or
- iii) fall, the yield curve would slope downward.

3) Market Segmentation Theory

According to market segmentation theory, interest rates for various maturities are determined by demand and supply conditions in the relevant segments of the market. Investors are not indifferent to difference in maturities. Instead they have definite maturity preferences, which are based largely on the nature of their business.

For example, using the simple arithmetic average if 1st year rate is 10% and it is expected to be 11% next year, then the rate on two-year bond will be approximately 10.5%

$$10+11/2 = 10.5$$

If we assume forward interest rate that we expect to exist in 3 year ahead is 15% then bond rate will be approximately 12%

$$(10 + 11 + 15)/3 = 12\%$$

The interest rates are generally referred to as spot and forward rates. Forward rate refers to yield to maturity for

bond which is expected to exist in future: Whereas, spot rate refers to the interest rate for bond, which currently exists and is being currently bought and sold. Forward rates are implicit. These rates cannot be observed, whereas, spot rates can be observed.

This theory is also referred to as '**hedging theory**'. The implication is that investors' decisions are typically affected by the particular pattern of their liabilities. Given the maturity of investors' liabilities, he or she can hedge against capital loss in the bond market by synchronizing asset with liability maturities. Thus, each investor remains confined to some maturity segment, which corresponds to his or her liability maturities.

Some bond portfolio managers attempt to increase their portfolios' yield by undertaking a bond investment strategy called 'riding the yield curve'. This strategy may be undertaken whenever the yield curve is upward sloping (that is the long term rates are higher than the short term rates) regardless of whether the yield curve is smooth or kinky.

Riding the yield curve is a buy and hold strategy, in which the bond investor purchases an intermediate or long term bond when the yield curve is sloping upward and is expected to maintain this slope and level. The purchased bond is simply held in order to obtain capital gains that occurs as the bond move closer to the maturity date and thus rides down the yield curve. That is in addition to the coupon rate. Bond investor earns capital gains. Of course, danger in this strategy is that the level of interest rates may rise or that the short-term end of the yield curve may wing upward.

A compilation of all these theories furnishes the best description of the elements of determining the 'term structure of interest rate'.

Check Your Progress 2

1) What do you mean by 'term structure of interest rates'?
.....
.....
.....

- 2) State whether following statement are true or false:
- i) According to Liquidity Preference Theory, interest rate increases with term to maturity of a bond. (T/F)
 - ii) According to Expectation Theory of Interest, yield on a long-term bond is an average of the short-term yield, expected to prevail over the life of the long-term bond. (T/F)

- iii) The yield curve slopes upward in the event of falling yield rates. (T/F)
- iv) Market Segmentation Theory of interest stipulates that interest rates for various maturities are determined by demand and supply conditions in the various segments of the market. (T/F)

3.5 FACTORS AFFECTING MARKET INTEREST RATES

There are many interest rates in the market and they do not always move in the same direction or to the same extent. Therefore, it is sometimes useful to select one rate to represent the short-term market. It is commonly believed that four factors are dominant in determining interest rate levels. These are state of economy, monetary policy, inflation expectations and federal budget.

Three other factors that can be important are:

- i) Saving by individuals,
- ii) International capital flows, and
- iii) Amount of premium required by investors to compensate for interest rate risk.

1) Economic Conditions

Interest rates have a tendency to move up and down with changes in the volume of business activities. In period of rapid economic growth, business firms require large amount of capital to finance increased requirements of in working capital and fixed asset. The business demand for borrowed funds, combined with increase in consumer borrowing put upward pressure on interest rates.

2) Monetary Policy

Monetary policy refers to the policy measures adopted by the Central Bank of the country such as changes in rate of interest (i.e, change in cost of credit) and the availability of credit. The policy regarding the growth of money supply also comes under the purview of monetary policy. Changes in bank rate, open market operations, cash reserve ratio of banks, selective credit controls are the various instruments of monetary policy.

i) Bank Rate

Bank rate is the rate at which the central bank of a country provides loans to the commercial banks. Bank rate is also called the discount rate because in the earlier days, the

central bank used to provide finance to the commercial banks by rediscounting their bills of exchange.

Through change in the bank rate, the Central Bank can influence the creation of credit by the commercial banks. When the Central Bank raises the cost of borrowing, the bank rate would rise. When bank rate is raised, the commercial banks also raise their lending rates. When the rate of interest charged by commercial banks are high, businessmen are discouraged to borrow more. This would tend to contract bank credit and hence would result in reduced aggregate demand for money. This would reduce prices and check inflation or rising prices. On the other hand, by lowering the bank rate, the Reserve Bank encourages or induces the commercial bank to borrow more funds from it. This enhances their capacity to make more credit available to the businessmen.

ii) **Open Market Operations**

The term 'open market operation' means the purchase and sale of securities by the Central Bank of the country. The sale of securities by the central bank leads to contraction of credit and purchase of securities that leads to credit expansion. When the economy is in the grip of depression, purchase of securities by central bank from the open market is called for. The central bank will pay the price of the securities to the sellers, which are generally the commercial banks. As a result of this, the quantity of cash at the disposal of commercial banks will go up and they will be in a position to expand credit to the businessmen. With this, the aggregate demand will increase which will help to cure depression. On the other hand, during inflation the central bank sells the securities and thereby contracts money supply.

iii) **Cash Reserve Ratio (CRR)**

A cash reserve is the fraction of total deposits of the banks, which is required to keep as deposit with RBI. When RBI wants to contract credit or lending by banks, it raises the CRR. On the other hand, when it wants to increase the availability of credit, it lowers the CRR.

iv) **Supply of Money**

One of the primary objectives is to achieve stable economic growth with a low rate of inflation. Generally the faster the legal reserves are allowed to grow, the greater the volume of lending, the faster the growth rate of money supply. If the supply of money grows faster than the needs of the economy for a considerable period of time, nominal interest rates will rise due to an increase in the rate of inflation

3) **Expected rate of Inflation**

Purchasing power risk arises from unanticipated inflation. It is the risk that the rate of inflation will be greater than the investor expected when the investment was made causing the real rate of return to be lower than expected. Because of these risks, market interest rates and other required returns include an inflation premium.

4) **Government Deficit**

Increase in government securities, unless offset by decreases in other borrowing means an increase in the total demand for loanable funds. There is a positive correlation between the amount of government deficit and the money supply.

3.6 EFFECT OF CHANGES IN INTEREST RATES

The basic argument of interest rate policy is that a rise in the interest rate raises the cost of credit and thus discourages investment as well as consumption financed with loans. On the other hand, lowering of the rate of interest cheapens the cost of credit and thus encourages investment expenditure as well as consumption expenditure. Hence, the interest rate policy can be used as a contra cyclical measure.

A change in the short-term rate of interest can be brought about by changing the bank rate, the rate at which the Central Bank of a country discounts the first rate short-term bills of exchange. It is assumed that a change in the bank rate directly influences the rate of interest charged by the commercial banks on their advances, as well as the other short-term interest rates, such as those charged for money at call, bill discounted, hire purchase finance etc. However, the short-term rate of interest is relevant to investment in inventories. A change in this rate is not likely to influence it significantly, as interest cost constitutes only a small part of the total cost. Similarly, it may not affect the consumption facilitated by purchase, provident fund contributions and insurance premium.

A change in the short-term rate of interest can effectively change the value of credit taking some factors into consideration. This can be explained by an example of increasing short-term rate of interest with a view to control inflationary situation. It will give rise to following difficulties:

- 1) It will add to the balance of payment difficulties as current account by increasing the cost of short term borrowing from abroad.
- 2) It will increase the cost of serving the national debt.

3) It may also tend to pull up the long term rate of interest as people may begin to expect rise in the long term rate of interest, and thus, they may begin to sell long- term securities in consequence of which their prices will fall and long-term rate of interest yielded by them will rise.

Check Your Progress 3

1) What is bank rate?

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.....
.....

2) Why are the open market operations resorted by the Central Bank?

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.....
.....

3) What type of relationship exists between amount of Government deficit and money supply?

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.....

4) How does the rate of interest influence the consumption and investment?

.....
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.....

3.7 LET US SUM UP

Borrowing and lending in the financial market, to a significant extent, depends on the rate of interest. There are four elements of gross interest: payments for risk, payment for inconvenience, payment for management, payment for exclusive use of money. The fourth component i.e. the payment for the use of money is known as **Pure Interest**.

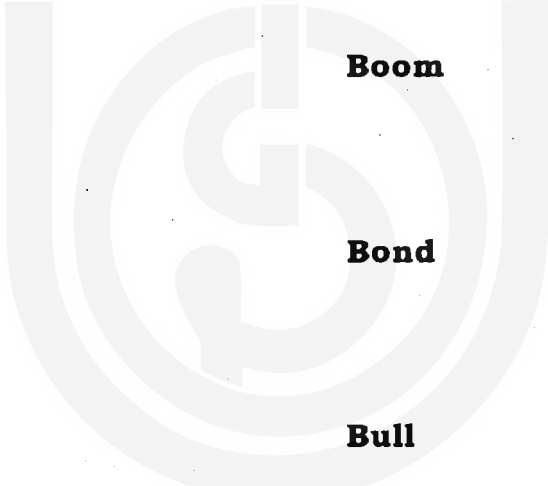
Price of a bond moves inversely to the yield to maturity. The yield of maturity of all bonds depend upon interest rate which fluctuate frequently. Fluctuations in the bond interest rates are caused by the internal factors namely, default risks, business risks and financial risks, and external factors i.e. purchasing power risk and market risks. Three theories have been promoted to explain how the shape of yield curve

is determined. These are: the Liquidity Preference Theory, Expectation Theory and Market Segmentation Theory.

These theories have furnished the description of the elements, which determine the term structure of interest rate. Many interest rates are found in the market and they do not necessarily move in the same direction. The reasons behind many interest rates in the market are economic condition, monetary policy, inflation expectation and federal budget.

Interest rate significantly influences the investment and consumption. Rise in the interest rate raises the cost of credit and discourages the investment expenditure, as well as consumption expenditure. On the other side, lowering of interest rate reduces the cost of credit, and thus, encourages the investment and consumption expenditure.

3.8 KEY WORDS

- 
- Bear Market** : A market in which prices of shares and commodities are decreasing.
- Boom** : Refers to a period of expansion of business activity. A boom reaches a peak when the economy has been working at a full capacity.
- Bond** : A security issued by a Government, Government agency, or a private company as a means of raising money.
- Bull** : A person who expects prices, especially of shares and commodities, to rise.
- Bull Market** : A market in which prices are rising enabling bulls to operate profitably.
- Depression (Slum)** : The stage of trade cycle characterising decreasing prices, output and employment and thus, under-utilisation of all factors of production.
- Financial Capital** : Funds made available for purchase of capital assets is called financial capital.
- Inflation** : Inflation refers to a tendency of persistent rise in prices over a period of time.
- Yield** : Yield measures the annual income from an investment against its current

market price. Yield falls when prices rise.

Yield Curve : Graph showing the return on fixed interest securities according to their maturity.

3.9 SOME USEFUL BOOKS

Hendrik, S. Houthakker & Peter, J. Williamson (1996): *The Economics of Financial Markets*, Oxford University Press, Chapter 6, Page 141-167.

Bhole, L.M (1992): *Financial Institutions and Markets*, Tata McGraw Hill Publications, New Delhi, Chapter 22 Page 447-464.

Cooper, S. & Fraser, D.R. (1990): *The Financial Market Place*, IIIrd Edition, Westley Publishing Company, Massachuales, New York, Chapter 7, Page 156-182.

3.10 ANSWERS/HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) Gross interest is a wider term. Pure interest is a part of gross interest which refers to the payment made for the use of capital. Gross payment is the total payment the lender gets from the borrower.
- 2) (i) False (ii) True (iii) False
- 3) The inflation is measured by the Price Index prepared by the Government agencies.
- 4) See Section 3.4

Check Your Progress 2

- 1) 'Term structure of interest rates' refers to the structure of yield for bonds with different terms of maturity.
- 2) (i) True (ii) True (iii) False (iv) True

Check Your Progress 3

- 1) The rate at which the Central Bank of a country provides loans to the Commercial Banks.
- 2) As a measure to cure the depression and inflation.
- 3) Direct.
- 4) The higher interest rate raises the cost of credit and thus, discourages investment as well as consumption. On the other hand, lowering of the interest rate cheapens the credit and thus, increases the investment expenditure.

UNIT 4 BUDGETARY POLICY AND INDIAN FINANCIAL SYSTEM

Structure

- 4.0 Objectives
- 4.1 Introduction
- 4.2 Indian Fiscal Policy
 - 4.2.1 Budgetary Policy
 - 4.2.2 Budgetary System
- 4.3 Indian Financial System
- 4.4 Impact of Budgetary Policy on Financial System
 - 4.4.1 Role of Budgetary Policy in the Growth of Financial Institutions
 - 4.4.1.1 Impact of Budgetary Policy on Banks
 - 4.4.2 Budgetary Policy and Financial Markets
 - 4.4.3 Budgetary Policy and Financial Instruments
- 4.5 The Interest Rate Policy and the Financial System
- 4.6 Deficit Financing and the Financial System
- 4.7 Let Us Sum Up
- 4.8 Key Words
- 4.9 Some Useful Books
- 4.10 Answers/Hints to Check Your Progress

4.0 OBJECTIVES

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

- describe the concept and objectives of the budgetary policy,
- identify the extent of integration between various segments of financial system and budgetary policy,
- evaluate the impact of budgetary policy on different sectors of the Indian financial system,
- state the role of budgetary policy in the emerging new economic environment, and
- discuss the role of Deficit Finance in financial system.

4.1 INTRODUCTION

The financial system of a State is influenced, to a great deal, by the economic policy of a country. The fiscal policy as a part of economic policy deals with taxation, public expenditure, public borrowing and debt management. The budgetary policy and the budget documents are important parts of fiscal policy. That is why, the budgetary policy and the budget documents, to a significant extent, influence the functioning of a financial system of a country. Hence, in this Unit, we shall discuss the issues relating to budgetary policy and their bearing upon the Indian financial system.

Let us begin with explaining the concepts of fiscal policy and budgetary policy in the next section.

4.2 INDIAN FISCAL POLICY

In the process of economic development, fiscal policy as an important instrument of economic policy plays an important role in the development and planning system of a country. Through fiscal policy, the Government provides public services. At the same time, it is an instrument for re-allocation of resources according to national priorities, redistribution, promotion of private savings and investments and the maintenance of stability. Fiscal policy is concerned with the aggregate impacts of various policy measures on the prescribed set of objectives. Therefore, it is in a broader framework, a measure to achieve the prescribed objectives in an economy. In other words, fiscal policy is a mean to achieve the chosen objectives like, economic growth, generation of employment opportunities, distributive justice, removal of poverty, price stability, etc.

It is clear from the above discussion that fiscal policy has a multi-dimensional role. Providing social justice to various segments is the major objective of this policy. In a developing country like India, the fiscal policy has an added importance as it is assigned an important role to achieve full employment and economic stability, and thereby achieving meaningful growth rate. Fiscal policy, on the one hand, concentrates on the resource mobilization in the economy. The system of taxes diverts funds from the private sector to the government sector. On the other side, the system of public expenditure diverts funds from government sector back to the people as they are spent for productive and welfare purposes. Public borrowings are also used for various purposes. Public debt management includes functions like floating of government loans, payment of interest and redemption of debts.

The fiscal policy is formulated to fulfil the following objectives:

- i) Mobilization of resources so as to increase the rate of investment and capital formation. This, in turn, accelerates the rate of economic growth,
- ii) Reduction of inequalities of income and wealth, or redistribution of income, in other words, an equitable distribution of income,
- iii) Increase in employment opportunities, and
- iv) Price stability.

In order to achieve these objective, the Government resorts to the following instruments:

- i) Taxation
- ii) Public Expenditure
- iii) Public Debt

These instruments affect the functioning of financial sector in the following manner :

i) Taxation

Taxation has a direct bearing on savings, investments and consumption. If the direct tax rates were high, there would be lesser savings and would also affect the consumption pattern. At the same time, if the tax rates are brought down, it would affect public investments. In such a contradictory situation, the Government has to take very precautionary step, as high corporate tax rate would affect the prices adversely. At one point of time, the corporate tax was quite high. However, with the process of liberalization it has gradually been reduced. The reduction in corporate tax creates multiple beneficial effects all round and also attracts foreign investments.

ii) Public Expenditure

Public expenditure, apart from influencing the economic growth process, has its real bearing on the activities of financial sector.

In the event of more spending through public investments, various sectors of the economy flourish, which in turn raise the demand for private investments from financial system. For example, if Government develops good infrastructure in a particular zone, more industries would come up and will demand the financial assistance from banks and financial institutes.

iii) Public Debt

The public debt comprises of internal and external debt. Internal debt includes market loans, bank temporary loans by way of treasury bills issued to RBI and commercial banks. Public debt policy affects financial sector. When Government has more borrowings, it adopts various tools such as increased level to statutory liquidity ratio to be imposed on banks, issue of treasury bills etc. All these measures reduce the credit capacity of financial institutions and these are left with less credit availability for productive purposes.

Thus, fiscal policy affects savings, investments, credit capacity, demand for credit in a financial system etc. that have direct bearing on operations of financial sector as a whole in the economy.

4.2.1 Budgetary Policy

Broadly speaking, budgetary policy is a policy through which the government uses its expenditure and revenue programmes to produce desirable results and avoid undesirable effects on national income, production and employment. Thus, budgetary policy helps in meeting the objectives set up in the fiscal policy.

The objective of budgetary policy cannot be different from the objective of fiscal policy and consequently economic development of the country. Both have to coincide.

4.2.2 Budgetary System

The document integrating the revenue and the expenditure of Government is called the '**Budget**'. A budget contains the actual estimates of revenue and expenditure of the Government of preceding year, revised estimates of the receipts and payments of the Government for the current year and the estimates for the next year. It has a role to ensure that the tax burden is reasonably imposed. On the other side, it ensures justice in allocation of expenditure among various sectors of the economy.

The budgetary policy is essentially concerned with:

- a) Raising of revenue
- b) Incurring of expenditure by the Government

The budgetary policy has been modified from time to time and made more pragmatic not only to enhance the tax resources but also to ensure that maximum people are brought within the tax net. The tax GDP ratio in India was just 6% in 1950-51, which increased nearly to 14% in 1999-2000. The Budget statement has been instrumental for providing special incentives for private savings and also encouraging investments in specified areas like housing. The budget strategies are revised every year keeping in view the overall economic growth of the country, requirements of resources, and allocation of funds according to priorities.

Strategies of the Budget (2001-2002)

The broad strategies of the Budget 2001-2002 were determined with the objective of the growth in mind and to ensure:

- i) Speeding up of agricultural sector reforms and better management of the food economy.
- ii) Intensification of infrastructure investment, continued reforms in the financial sectors and capital market and deepening of structural reforms through removal of

- remaining tiresome controls constraining economic activity.
- iii) Human development through better educational opportunities and programs of social security.
- iv) Stringent expenditure control of non-productive expenditure, rationalization of subsidies and improvement in the quality of government expenditure.
- v) Acceleration of the privatization process and restructuring of public enterprises.
- vi) Revenue enhancement through widening of tax base and administration of a fair and equitable tax regime.

Table 4.1 : Budget (2001-2002) at a Glance

	<i>(Rs in Crores)</i>
REVENUE RECEIPTS:	231745
TAX	163031
NON-TAX	68714
CAPITAL RECEIPTS:	143478
RECOVERY OF LOANS	151648
OTHER REVENUES	12000
BORROWINGS AND OTHER LIABILITIES	116314
TOTAL RECEIPTS:	375223
NON-PLAN EXPENDITURE:	275123
REVENUE ACCOUNT	250341
INTEREST PAYMENT	112300
CAPITAL ACCOUNT	24782
PLAN EXPENDITURE:	95100
REVENUE ACCOUNT	60225
CAPITAL ACCOUNT	34875
LUMP SUM PROVISION FOR ADDITIONAL PLAN	5000
REVENUE DEFICIT	78821
FISCAL DEFICIT	116314
PRIMARY DEFICIT	4014

Check Your Progress 1

1) What do you mean by fiscal policy?

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.....

.....

2) How public expenditure as a policy instrument can be used to enhance investment?

.....

3) State whether following statements are true or false:

- i) With the process of liberalization, the corporate tax has been raised. (T/F)
- ii) Human development has been one of the key strategies of union Budget 2001-02. (T/F)
- iii) The objectives of budgetary policy vary with the objectives of fiscal policy. (T/F)

4.3 INDIAN FINANCIAL SYSTEM

We are quite aware of the major components of a financial system, as these have been discussed in Unit-1. Let us discuss the various components of Indian Financial System here.

The Indian financial system consists of variety of institutions, markets and instruments that are closely related with each other. It provides the principal means by which savings are turned into investments. Given its role in the allocation of resources, the efficient functioning of the financial system is of crucial importance in a developing economy, like India.

The financial institutions/financial intermediaries, as they are called, comprise commercial banks, insurance companies, mutual funds, non-banking financial companies, development financial institutions etc. The financial markets comprise of capital market and money market, whereas financial instruments are demand deposits, short-term debt, intermediate term debt, long-term debt and equity, bonds etc.

Broadly the important functions of financial system can be described as under:

- i) It enables the pooling of funds for setting up large-scale enterprises.
- ii) It provides a way for managing uncertainty and controlling risks.
- iii) It provides a mechanism for spatial and temporal transfer of resources.
- iv) It generates information that helps in coordinating decentralized decision-making.
- v) It provides a payment system for exchange of goods and services.
- vi) It helps in dealing with information gap by handling sensitive information discreetly

4.4 IMPACT OF BUDGETARY POLICY ON FINANCIAL SYSTEM

The budgetary policy provides a leeway to integrate various financial intermediaries and make the financial system more vibrant. There are various budgetary policy measures, which set the direction of savings, credit expansion and investments. Depending on various policy measures, the extent of growth of financial system is determined.

4.4.1 Role of Budgetary Policy in the Growth of Financial Institutions

The primary role of a financial institution is to serve as an intermediary between lenders and borrowers. These institutions work under the overall supervision of the Reserve Bank of India. The funds pooled by the financial institutions are invested in diversified portfolios of financial assets. The transaction cost is lower. The financial institutions supply the ultimate lenders with liquid and less risky financial assets. Thus, financial institutions act as intermediaries between investors and savers.

The process of financial intermediation results in:

- a) Providing savers with different varieties of financial assets to invest their funds according to their preferences. It enables them to increase their savings.
- b) Borrowers are also benefited as finance is provided through the institutions as it is not easily possible to obtain directly from savers.
- c) It raises the productivity of aggregate investment, by improving its allocation. This apart, financial intermediaries also perform the important function of facilitating the normal production process and the exchange of goods and services.

The financial institutions, thus, play a vital role in the economic development of the economy. Broadly, these institutions are classified into following categories:

- a) Development financial institutions
- b) Insurance companies
- c) Other Public sector financial institutions
- d) Mutual Funds
- e) Non-Banking Finance Companies

The objective of budgetary policy is to strengthen the financial base of these institutions and to provide them operational freedom. A distinct feature of the Indian financial system is dominance of public sector institutions. Motivated by socio-

economic considerations, the system has been subject to high degree of regulations. Both entry of a new entity and its expansion have remained under the control of State. There has been a mandatory allocation of credit amongst different sectors including the government. Concessional interest rates have also been introduced.

In the recent past, the following budgetary policy measures have been initiated:

- i) The financial institutions have been given more autonomy in their operations. They have also been permitted to expand their operations in the financial sector by opening new outfits.
- ii) Prudential norms relating to capital adequacy, income recognition, classification of assets and provisioning have been made applicable to these institutions.
- iii) Insurance sector has been opened to the private sector. This will not only provide healthy conditions but also better risk cover and returns to investors. Insurance Regulatory and Development Authority has been set up to monitor the insurance institutions.
- iv) Budgetary allocation has been made to expand the capital base of NABARD, which in turn will accelerate the growth of agricultural sector and rural development.
- v) Certain tax incentives have been extended for investment in mutual funds.

4.4.1.1 Impact of Budgetary Policy on Banks

The banks mobilize surplus funds through various channels of savings. The flow of savings in the economy directly depends on budgetary policy measures. As already indicated that taxation policy, public expenditure and public debt policy affect consumption and savings, the extent of savings is much related to fiscal measures. Likewise, the expansion of credit also depends on investment policy being pursued by the Government to encourage private investments. If there are more fiscal incentives for industrial expansion, it will attract more demand for credit. Even Government's demand to meet current expenditure would limit the availability of loanable funds from the banking system.

The commercial banks transfer funds from surplus units to deficit units at the minimum operating cost. Today, we have vast network of bank branches operating all over the country. The nationalization of commercial bank in 1969 was a turning point in the history of banking in India. There have been significant achievements and pitfalls during this period. The budgetary policy has initiated a series of measures to make the banks more responsive to economic growth.

Some of the recent measures are as under:

- i) The banks are required to be more vibrant and their capital base has been strengthened. To meet the capital adequacy norm of 8%, a budgetary support of over Rs. 20,000 crore is provided to weak banks.
- ii) To make the bank credit cost effective, tax on loan interest has been withdrawn.
- iii) In the budget document, through rigorous exercises, attempts have been made to bring down the deficit, which in fact has helped banks to control flow of credit to government on concessional rate of interest.
- iv) To boost the export business, the government has set up Export Import Bank of India. The initial capital was contributed through budgetary resources.
- v) Banks have been facing serious problem with regard to recovery of their loans particularly the non-performing assets. The government has set up Debt Recovery Tribunals to expedite the cases of banks and accelerate recovery process.
- vi) The budgetary policy provided specific provisions and incentives for increasing the credit to high-tech agriculture projects.
- vii) The banking sector has been provided greater autonomy in their functions. The entry of private and foreign sector banks has been permitted to bring more competitiveness and efficiency in the working of banks.
- viii) For greater credit expansion and wider acceptability of banks in rural areas, the Regional Rural Banks (RRBs) have been set up.
- ix) The development of housing sector received prime attention in the budgetary policy. National Housing Bank has been set up. Tax concessions have been provided to the borrowers.
- x) The budgetary policy has initiated several other policy measures for the benefit of specified sectors like poor people, agriculturist, educational loans, etc.
- xi) The Statutory Liquidity Requirement (SLR) and the Cash Reserve Requirement (CRR) of banks have been reduced significantly to release more loanable funds to the banks.
- xii) To reduce its stake in the ownership of nationalized banks, the Government has decided to reduce its equity to 33% in case of such banks.

Thus, the budgetary policy has provided greater flexibility in banking operations and has made them more stronger to play a vital role in the financial system.

4.4.2 Budgetary Policy and Financial Markets

In the Indian financial system, there are two broad segments of the financial market:

- i) money market, and
- ii) capital market.

i) Money Market

The money market deals with short-term debt. The principal players in the money market are the commercial and other banks in addition to LIC, UTI, Mutual Funds, and non-banking financial companies. These intermediaries lend funds on a short-term basis to create an active inter bank call loan market. The Discount and Finance House of India (DFHI) provides liquidity to money market instruments by creating a secondary market.

ii) Capital Market

The capital market deals with long-term debts and stock (equity and preference). Each of these markets has a primary and secondary segment. New financial assets are issued in the primary market while existing financial assets are traded in the secondary market.

The growth of capital market is influenced, to a great extent, by various budgetary policy measures. For example, the taxation policy of corporate tax, dividend tax, capital gain tax, fiscal incentives for small savings etc. have direct impact and set the direction of growth of capital market. On the other hand, various fiscal incentives for industrial expansion would cause more demand from capital market by industrial sector.

The instruments of capital market have long period for maturity. It is a source of raising capital by issuing securities. The primary capital market facilitates the formation of capital. The secondary market consists of stock exchanges recognized by the government. The National Stock Exchange and Over the Counter Exchange of India provide liquidity to the securities. The Securities and Exchange Board of India (SEBI) oversees and monitors the functioning of securities market and operations of intermediaries like mutual funds and merchant banks. Besides, there is a market for government securities which deals with debt securities issued by central/state governments, all India financial institutions and other autonomous institutions.

The following budgetary provisions helped widening of financial markets and their operations smoothened:

- a) With a view to encourage secondary market operations, the maximum coupon rate which was as low as 6.5 % in 1977-78 was raised to 11.5 % in 1985-86 and thereafter restriction on maximum coupon rate was removed.
- b) A number of instruments were introduced in the market such as 182-day Treasury Bill, certificate of deposits, commercial paper and inter- bank participations.
- c) The Discount and Finance House of India (DFHI) was set up in 1988 by Reserve Bank of India and other financial institutions to facilitate smoothening of short-term liquidity imbalances and bring flexibility to the money market.
- d) The interest rates have been largely deregulated.
- e) Tax incentives have been provided for capital gains investment in mutual funds and investment in infrastructure development bonds.
- f) To provide further boost to money market operations, banks and other financial institutions have been allowed to set up money market mutual funds.
- g) Foreign institutional investors have been encouraged to participate in the financial markets.
- h) The concept of tax-free bonds was introduced for mobilizing greater resources.

4.4.3 Budgetary Policy and the Financial Instruments

Financial instruments are generally defined as monetary obligation of a borrower of funds (the issuer of the instrument) to the holder of the instruments. For the issuer of the instrument, it is a liability or in other words, financial obligation, for the holder it is a financial asset.

Financial instruments may be issued by economic units (private as well as public). The major financial instruments in an economy are as under:

i) Demand Deposits

Demand deposits are the financial instrument which are payable on demand to the owner by the holder. It may or may not carry interest. These are usually held by the banks by way of current and savings deposits and by post offices by way of savings accounts.

ii) **Short-Term Debt**

This is a promise to repay a specified sum along with agreed rate of interest within a short period of one year. Treasury bills, commercial papers, certificates of deposits and few other innovative instruments have been introduced in the system.

iii) **Long-Term Debt**

These are the debt instruments repayable over a period of 5 to 7 years in case of corporate sector and over 10 years in case of government bonds. They carry a specified coupon rate. Private and public sector debentures and bonds fall in this category. The debt instruments have been made more lucrative with variety of options and reasonably better yield.

iv) **Equity Stock**

This is a popular means of raising resources as capital by the corporate sector. Being owners, the equity shareholders have residual interest in the income of the company as they receive dividend after the claims of all creditors are met.

The budgetary policy has aimed from time to time that various financial instruments depending on variety of needs are brought into the system. They perform both the functions of financial assets and financial liabilities.

In this direction, the budgetary policy has a very important role because the nature of new financial instruments and their innovativeness depend on budgetary policy decisions. Such incentives are in the form of tax incentives to attract more savings, growth of investments to meet increased money supply and growth of capital market in tune with changes in policy measures for industrial growth.

The budgetary policy has made the financial instruments as discussed above, more acceptable. Some of the other financial contracts like forward futures, swaps, options and pension funds have been introduced in the system. The following are some of budgetary policy measures, which have increased the utility of above instruments in the financial system.

- i) The ceiling coupon rate on bonds has been abolished.
- ii) Some specified bonds such as infrastructure and power development have been given tax benefit.
- iii) The volume of money market instruments has been increased.
- iv) Number of steps has been taken to make short-term debt

instruments more acceptable. The eligibility norms have been liberalized from time to time.

- v) Mutual funds investments have also been given certain rebate in tax .
- vi) Specific guidelines have been issued for operations of forward futures, swaps, options etc.

Check Your Progress 2

- 1) State three major functions of financial intermediaries.
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- 2) What major steps have been adopted in the recent years to make the banks more vibrant?
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- 3) State how the budgetary policy affects the financial markets
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4.5 THE INTEREST RATE POLICY AND THE FINANCIAL SYSTEM

The interest rate policy basically aims at:

- i) ensuring government borrowings at cheaper rates,
- ii) supporting certain activities through concessional lending rates,
- iii) mobilizing substantial savings, and
- iv) ensuring stability in the macro-economic system.

The interest rates in India had, in the past, been substantially regulated by the Reserve Bank of India which had the following features:

- i) Interest rates on deposits with commercial banks were subject to ceiling.
- ii) Interest rates on loans were subject to floors.
- iii) Interests rates payable by companies on deposits were subject to a ceiling.

- iv) Interest rates charged by development financial institutions were subject to floors.
- v) Interests rates payable on small saving schemes were fixed by the government.

The interest rate regime in India has undergone a rapid transformation during recent years. The structure of interest rates, which was extremely complex, has now been rationalized. Banks are now free to determine their own Prime Lending Rate and to prescribe the maximum spread over it. Loans upto Rs. 2 lakhs are to be granted at rates not exceeding the Prime Lending Rate of relevant maturity. The money market rates have been completely freed. So are the rates at which corporate entities can borrow funds from the capital market. Deposit rates have also been deregulated, except the interest rate on saving accounts, which is determined by the Reserve Bank of India.

The interest rate deregulation has influenced the government securities market also. The Central Government has been able to meet its requirements from the market through the auction mechanism. The rates of interest settled at the auctions have come to reflect truly the market conditions. This has been proved both in relation to dated securities and treasury bills. With abundant liquidity, the interest rates have clearly shown a downward decline. The 364-day treasury bills are increasingly being used as a benchmark for fixing other rates in the system. With the development of an active government securities market, where rates are more or less determined by the market, the emergence of the open market operations as an indirect instrument of monetary control will assume importance. Steps are being taken to bring about significant institutional changes in the government securities market.

With the reform in the interest rate structure, an emphasis has been placed on widening and deepening of various segments of the financial sectors of money market and capital market. In the budget 2002-03, Government has decided to link interest rate on small savings with the average yield on Government Securities of comparable maturity.

Role of Budgetary Policy in the emerging new economic environment:

India has been pursuing the policy of economic reforms since 1991-92. The major policy initiatives are:

- i) Macro economic stabilization through fiscal policies.
- ii) Trade policy reforms to provide stimulus to exports.
- iii) Industrial policy reforms to provide greater competitive environment to industries.

- iv) Wide spread reforms in financial sectors to achieve financial efficiency.

The monetary and fiscal policies aim at controlling aggregate demand in tune with the growth of the economy. These policies are known as stabilization policies. The budgetary policies act as a link between both, the macro economic stabilization and structural policies. Therefore, budgetary policy has a very crucial and significant role in creating an environment conducive to economic growth.

There has been a number of policy measures taken in the recent years to accelerate the process of economic reforms. These include:

- i) Wide range of financial sector reforms including banking sector, capital market operations, non-banking financial companies and other development financial institutions.
- ii) Serious attempts have been made through budgetary policy to correct fiscal imbalances.
- iii) The tax laws has been rationalized to ensure:
 - a) lower personal and corporate taxes.
 - b) broaden the tax base; and
 - c) inflation adjustment of tax rates.
- iv) The policy has been adopted for progressive expansion of MODVAT system.
- v) Continued rationalization of custom tariffs structure.
- vi) The new economic policy has lent more emphasis on large flow of direct foreign investment.

The above analysis indicates that budgetary policy has an important contribution in achieving the goals and objectives of new economic policy.

4.6 DEFICIT FINANCING AND FINANCIAL SYSTEM

According to the Planning Commission, the term "Deficit Financing" is used to denote direct addition to gross national expenditure through budget deficits whether the deficit is on revenue or on capital account. The essence of such a policy lies, therefore, in government spending in excess of the revenue it receives in the shape of taxes, earnings of state enterprises, loans from public, deposits and funds and other miscellaneous sources.

The government may cover the deficit either by:

- i) Running down its accumulated balance (withdrawing its cash balances),
- ii) Borrowing from the central bank,
- iii) Borrowing from commercial banks, or
- iv) Creating new money by resorting to the printing press.

In short, deficit financing means incurring public expenditure in excess of public receipts from all sources. The quantum of deficit financing in a given period can be measured by variations in the financial assets and the non-monetary liabilities of the RBI and of the treasury.

The deficit financing has affected the operations of financing system to a large extent as financial system especially the banks were directed to provide significant credit support for government expenditure (current and capital both).

The period since early 1970s was characterized by weakening of fiscal discipline leading to large expansion in the central government's domestic and foreign currency borrowing requirements. The ratio of the gross fiscal deficit to GDP increased from 3.5 % in 1970-71 to 8.4% in 1990-91. The obligatory cash reserve requirements of scheduled banks (held at the central bank) and the statutory liquidity ratio (to be met through holdings of government and other approved securities), reduce the resources of banks. With a view to keeping the government's borrowing costs down, the yield on both treasury bills and long-term paper were left artificially low. This limited the demand for government paper by banks (and other financial intermediaries, such as insurance companies and provident funds). Residual financing needs of the government were, therefore, met by the Reserve Bank.

Such a mix of policies had deleterious long-term effects as large fiscal deficits became chronic and continuous escalation of the above-mentioned two ratios became necessary. In the early 1970s the cash reserve ratio for the banks was as low as 3% and the statutory liquidity ratio was 25%. By 1991-92, the CRR rose to 5% and SLR was 38.5%. At the same time, the Reserve Bank's holding of Central Government debt (i.e., its monetisation of the Government deficit) ballooned. By 1991, it was clear that the burden of Government debt was becoming unsustainable and that a significant improvement in the primary deficit was needed.

Sustained fiscal adjustments must underpin further reforms. In the absence of credible fiscal control and price stability, there is some risk that interest rate deregulation could result in overshooting and disrupt the reform process. The Government of India has committed itself to continued reduction in its gross fiscal deficit from the level of 5.7%

reached in 1992-93. The fiscal deficit as a proportion of GDP was budgeted, at 4.7 per cent in 2001-02 (BE) compared with 5.5 per cent in 2000-01 on the basis of original unaudited figures. Trends in the financial year 1993-94 were somewhat worrying, with the seasonally unadjusted deficit in the first half of the year running at an annual rate roughly triple the targeted level. This reflects revenue shortfalls partly related to sluggish industrial activity and delay in sale of equity in public enterprises. There has been agreement between Reserve Bank and Government that this incremental deficit should not be monetised. Accordingly, Government has resorted to additional borrowing through treasury bills and zero-coupon bonds at market-related rates. Fortunately, this unplanned increase in the borrowing requirement has occurred at the time when the domestic market is flush with funds, but this is short-term phenomenon that cannot be relied on. Nonetheless, the use of these market instruments has meant that the monetised deficit can be kept under control.

Check Your Progress 3

- 1) List the three measures initiated in the budgetary policy to make the banks more responsive to growth.
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- 2) Name any two measures which have been taken to strengthen the capital market?
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- 3) Name two measures through which the Government cures its budget deficit.
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4.7 LET US SUM UP

Budgetary Policy as a part of economic policy deals with taxation, public expenditure, public borrowings and debt management. The budgetary and monetary policy and the budget documents influence the functioning of financial system to a great extent.

Taxation policy has a direct bearing on savings, investments and consumption. Change in the direct tax rates affect the

level of saving and the consumption patterns. Public expenditure also influences the linkage between public investment and its spill over effect on private investment. Public debt policy also affects financial sector through changes in SLR and CRR, which in turn, reduce the credit capacity of the financial institutions. Thus, budgetary policy affects savings, investments, credit capacity demand for financial system, which, in turn, have direct bearing on the financial system.

A lot of changes have been made in the Indian budgetary policy after July 1991 to boost the financial system and make it more vibrant. The Financial Institutions have been given more autonomy after the beginning of economic reforms since July, 1991. As a major policy change, the insurance sector has been opened to private sector. Budgetary Policy has also provided greater flexibility in banking operations and has made them stronger to play a vital role in the financial system. The budgetary provisions have also helped widening the financial markets. A number of financial instruments such as Treasury Bills of shorter duration, certificate of deposits, commercial papers etc. have been introduced.

The deficit financing has affected the operations of financial system to a large extent as financial system, especially the banks, provide a large amount of support through purchase and sale of government securities. Since early 1970s, the domestic and foreign currency borrowing requirements of the Government have expanded to a great deal. In order to keep the Government's borrowing cost down, the yield on the long-term debt has been kept low. Such a policy measures has deleterious long-term impact on the financial system.

4.8 KEY WORDS

Balance of Payment: A systematic and summary record of a country's receipts and payment made to the rest of the world.

CRR : Cash reserves to be kept by the Commercial Banks as certain proportion of their demand and time deposits.

Economic growth : The expansion of the per capita output of the economy. In other words, a tendency of rise in real level of net national product.

Exchange rate : The price at which one currency can be exchanged for another.

Human development : The process of widening people's choices and the level of well being

- Progressive tax** : Progressives taxes refer to increasing rate of taxes at the increasing level of income.
- Propensity to consume** : The desire to consume expressed as the proportion of income spent on goods and services.
- Pump priming** : Attempt to reflate the economy by running a small budgetary deficit.
- Redemption of debt:** The repayment of an outstanding loan by the borrower in order to cancel it.

4.9 SOME USEFUL BOOKS

Economic Survey – Government of India, 2001, 2002

Union Budget Document, 2001-02, 2002-03

I.C. Dhingra (2001)— *Macro Economics Analysis and Policy*, Sultan Chand and Sons, New Delhi

Rudra Dutt (2001) — *Indian Economy*, S. Chand and Company, New Delhi

Cooper, S.K. and Fraser, D.R. (1990): *The Financial Market Place*, IIIrd edition, Westley Publishing Co., Massachuales, New York.

4.10 ANSWERS/HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) Fiscal Policy is a policy instrument, which deals with the taxation, public expenditure and public debt to achieve the desired objectives.
- 2) By making the public expenditure in socio-economic infrastructure, which in turn, motivates the private investment.
- 3) (i) False (ii) True (iii) False

Check Your Progress 2

- 1) i) Serve as an intermediary between lenders and borrowers.
ii) Provides savers with different varieties of financial assets to invest their funds.
iii) Provides borrowers with the opportunity to obtain funds.

- 2)
 - i) Debt Recovery Tribunal has been set up to expedite the cases of banks suffering from the problem of recovery of their loans.
 - ii) Entry of private and foreign banks has been permitted to make the system more competitive and effective.
 - iii) The Statutory Liquidity Requirements (SLR) and Cash Reserve Requirements (CRR) have been reduced significantly to release more loanable funds to the banks.
- 3) Various policy measures of budgetary policy, such as taxation affect the level of saving and investment, which in turn, affects the functioning of financial markets.

Check Your Progress 3

- 1)
 - i) Withdrawal of tax on loan interest.
 - ii) Setting up Export-Import Bank of India to boost the export business.
 - iii) Reduction of CRR and SLR to release more loanable funds to the banks.
- 2)
 - i) Removal of coupon rate.
 - ii) Introduction of new instruments like Treasury Bill, Certificate of Deposits, Commercial Paper and inter-bank participation.
- 3)
 - i) Market Borrowing
 - ii) Deficit Financing

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