CONTENTS

1. Financial Markets 1-26
2. Depository System 27-38
3. SEBI (Securities Exchange Board of India 39-49
4. Derivatives 50-64
5. Forwards and Futures 65-68
6. Futures 69-80
7. Pricing Futures 81-86
8. Swaps 87-89
9. Index Futures 90-96
10. Options 97-106
11. Option PrIcing 107-109
12. Trading Strategies 110-119
13. Valuation Models 120-123
14. Market Index 124-129
15. Black- Scholes Option Model 130-140
16. Derivatives Market in India 141-144

Lesson - 1

Financial Markets

1.0 Objectives

The objectives of this unit are to enable you:

- To understand the meaning and importance of financial markets.
- To know the various functions of financial markets.
- To know the various types of financial instruments that exists in financial markets.
- To understand the importance of financial markets.

Structure:

1.1 Introduction
1.2 Main Functions of the Financial Markets
1.3 Types of Financial Markets
1.4 Functions of the Money Market
1.5 Money Markets Instrument
1.6 Financial Institutions in the Money Market
1.7 The Indian Money Market
1.8 The Reforms in the Indian Money Makets
1.9 Recent Trends in Indian Financial Markets
1.10 Capital Market
1.11 Meaning of Capital Marker
1.12 Objectives and Importance of Capital Market
1.13 Function of Capital Market
1.14 Primary Securities Market
1.15 Capital Rose During 2002-03
1.16 Industry Wise Capital Mobilizations
1.17 Secondary Market
1.18 The Products Dealt in the Secondary Markets
1.19 Summary
1.20 Self Assessment Questions

This unit introduces to the basic meaning, nature and concept of financial. The importance, functions and various types of financial instruments is also covered in detail. It is essential for the management student to understand the concept of financial markets and its importance for the development of the people in the society as well of the country.

1.1 Introduction:

The financial system of a country can be divided into financial markets, financial institutions and financial instruments. A financial market is generally divided into money market and capital market; the former being the market for liquid or short-term assets and the latter for long-term assets. The money market itself is a system of inter-related sub-markets, which generate liquidity in the economy. An efficient and developed money market is essential for the smooth operation of the monetary and credit policy and for overall economic growth. The instruments traded in the marker are, in general, highly liquid, have short-term character and involve low degree of risk. Before studying the Indian money market, it would be useful to look into the broad nature of a financial system within which it operates.

What is a Financial System?

Financial system is the institutional arrangement for efficient transfer of financial surplus from the saves (predominantly in the household sector) to the deficit – spenders (particularly the business sector and the government) the task is perfumed by a large variety of financial institutions through a number of financial instruments using innovative financial technology. The important function is known as 'Financial intermediation and the institutions are termed as 'Financial intermediaries', which can be classified in a number of ways. The institutions derive their existence from the basic fact that it is very difficult or expensive for the deficit spenders to reach out to the widely dispersed millions of surplus savers to meet their financial institutions. Surplus savers also prefer to lend their funds to financial institutions, particularly to the established ones in the organized sector, rather than lending directly to the deficit spenders as it involved lower risk, provides greater liquidity and convenience and make available various services provided by financial institutions. Borrowers, while dealing with the institutions, have greater certainty about the availability of required finance at relatively lower interest . This, however, is not necessarily the case when the financers are in the unorganized sectors.

Nature of Financial Intermediation

While there are strong reasons for borrowers and lenders to operate through financial intermediaries, there is a sound economic rationale for financial institutions to take up this type of business activity . The logic can be seen in the following points

Economies of Scale: Since financial institutions , particularly in the organized sector, operate on large scale. They reap substantial economies of scale which lowers their transaction costs and extends profit margins .

Liquidity pricing: Financial institutions can convert a primary security with longer maturity into another security of their own with shorter maturity generating liquidity in the process, which cab be of value to the holder of the short--maturity security. The institutions can charge a price for the liquidity so produced .

Risk Reduction: The institutions have fund operations on large scale which enable them to diversify their portfolios and thus reduce risk. It is difficult for the small investor or wealth holder to spread risk, as his resources are limited

Satisfying Diverse Investor Preference: Financial institutions have the potential or capability to satisfy diverse investor choice and preferences as they can produce and market a customer focused set of securities with different characteristics suited to saver or investor preference. Much, of course, depends on the institutions, understanding of the savers or potential investors, innovativeness of financial products, risk and return characteristics of the securities developed and marketing skills .

Professionalisation of Financial Management: The institutions are in a better position to engage finance professionals and experts to take care of the management of funds and financial services,. They can offer various combinations of risk, return, liquidity and tradability of the securities they develop to prospective investors and in the process enable the investors to take advantage of the skills of these professionals' financial mangers. This assures the institutions about the market for their securities .

Small Investors' Convenience: The operations of the financial institutions make prudent investment by small investors quite convenient as the schemes of the institutions are generally well advertised and are available to prospective investors through a widespread network of agents. It saves the investors from the need to spend time and incur cost of making investments directly in their own .

The Three Pillars of a Financial System

The institutional structure of the financial system of a country rests on three pillars .

1. Financial MarketP: A financial market refers to the interacting groups of borrowers and lenders and to the mechanism through which funds are transferred or transacted between them . In this market, financial assets are traded and yield rated are determined . Depending upon the nature and extent of financial development, a range of financial sub-markets exist which are often interrelated and deal with different types of financial assets . Nevertheless, all types of financial markets can be classified into money markets and capital market, the former being the market for liquid or short-term assets and the latter for long-term assets (as mentioned earlier) . These markets, in India, are detailed in subsequent sections .

2. Financial Institutions: As already discussed, the basicfunction of financial institutions is to connect the classes of lenders and borrowers and, through an institutional arrangement, facilitate movement of funds from the former to the latter. They convert direct securites issued by the business firms into indirect securities to large classes of individual and institutional investors through their intermediation function. Depending upon the types of assets or securities dealt with, these institutions participate in money market or capital market or both. These institutions play a great role in converting savings into investment a process that is called capital formation . These institutions reduce financial constraints to economic growth, improve liquidity in the economic system and absorb risk thereby creating favourable conditions for business.

3. Financial Assets or Securities: The range of financial assets , securities, or instruments used or traded in the financial market is a leading indicator of its state of development and maturity. The larger the variety of the securities, the more adequately are the requirements of diverse groups

of investors met. These assets or securities are the creation of the borrowers including the financial institutions (which are lenders as well). The various securities can be ownership securities involving risk (like ordinary shares), creditor ship securities (like debentures), which entitle the holder to a pre-determined rate of interest and interest income, or hybrid securities (like preference shares), which contain elements of the both. In addition, there are a variety of innovative financial instruments catering to specialized requirements of borrowers and lenders . Such instruments are discussed in the subsequent sections.

Basic Functions

The basic functions of a financial system may now be summarized as follows:

Motivation for Savings: It provides motivation for saving by offering a wide variety of securities to cater to a variety or savaings or investors' preference . The securities provide a wide choice of portfolios with different combinations of risk, return maturity and liquidity The securities are divisible, convenient to hold, storable and provided hedge against inflation. These savings are extremely important from the point of view of economic growth.

Mobilisation of Savings: The system mobilizes the saving to enable the subsequent financing function. Ability to mobilize savings depends upon the quality of securities issued and marketing skills of the financial institutions . The mobilization takes place through bank deposits, equity shares, bonds, life insurance policies, units of mutual funds etc.

Saving Mobilization Can be Direct as well as Indirect: Mobilisation is direct when ultimate borrowers (like government or companies) issue and sell their securities (called primary securities) like bills, fixed deposits, equity shares or bonds directly to the surplus holders or prospective investors. Mobilisation is indirect when financial institution as intermediaries buy primary securities of the ultimate borrowers and issue secondary securities to the ultimate savers, lenders or prospective investors . This is also called transmutation of securities, which is a highly skilled work and requires the development and application of a sophisticated financial technology. Indirect mobilization is generally much more effective than indirect mobilisation. Much, of course, depends upon the state of development and regulation of the primary and secondary security markets.

Fund Allocation: The financial system allocated the funds mobilised from the lenders and investors to the ultimate borrowers or deficit spenders by subscribing their primary securities or through direct lending . In this process, the ultimate lenders (in case of direct financing) and financial institutions (incase of indirect financing) have to bear the risk at their own level . Financial institutions in case of indirect financing are far more capable than individual lenders to assess and cover the risk of financing . Whether the financial system is able to cater to the financial requirements of a large number of highly dispersed firms .depends upon its allocate funds of different sizes, types and maturities from a wide variety of lenders and allocates the same to equally diverse groups of borrowers.

Risk Absorption: A financial system is not merely involved in the fund transfer process but also absorbs risk particularly through financial intermediation. The risk is made possible through the development of sophisticated financial technologies, innovative financial instruments and professionalisation of financial services. Failure to absorb risk can seriously hamper the growth of financial markets and keep the overall financial system, which creates favourable conditions for the growth of business.

These are the basic functions of a financial system. How well these functions are discharged, depends upon the status of the financial markets, the saving capacity of the individual lenders , the efficiency of the financial institutions, the quality of financial market regulation and, of course, the demand for new investment in the business sector which itself depends upon the state of business environment . From the macroeconomic point of view, the existence of a well-developed financial system is a sine qua non for accelerated economic growth.

Hall Marks of a Developed Financial System

A well developed financial system has the following distinctive characteristics.

Equity: It must be equitous in the sense that it takes scare of the interests of the borrowers and lenders in a balanced manner and is not perjudial or detrimental to the interest of one section or the other .

Allocative Efficiency: The system is capable of transferring the funds efficiently and adequately to the different classes of deficit spenders so that no particulars segment of the business sector is starved of funds. The system has a wide reach and is able to use modern technology to push the funds to the various segments where these are required. Failure to do this can create imbalances in the growth process.

Efficacy: The system is effective in the mobilisation and allocation of funds. The system is actually capable of siphoning off funds from the surplus savers and lenders to where these are required .

Transition Costs: The system is capable of keeping the transaction costs minimum. This enable the financial institutions as well as the ultimate borrowers to maintain competitiveness .

Risk Absorption: As already pointed out, risk absorption is an important function of the financial system . The system, through innovative financial technologies, products and services is able to minimize the risk and create favourable conditions for business growth .

Adequacy of Returns: The system is able to provide adequate financial returns to lenders as well as to the intermediating financial institutions.

This pre-requires that the value addition in the financial sector is substantial and that the funds are deployed in areas where risk is low and return is high. When returns are low, incentive to save is dampened and financial operations become less attractive.

These hallmarks also serve as the criteria or the benchmarks against which the soundness and the degree of development of a financial system can be assessed It must be commented that no financial system can grow in isolation. It requires a favourable business environment, both for financial and non-financial organizations, and enabling macroeconomic policy framework and existence of profitable opportunities . Private enterprise, competitive conditions and globalisation of the financial markers spur the growth of the system. A number of developing countries like India have initiated a series of financial reforms in the above areas.

Indian Money Market : Institutional Structure And Instruments

Simply stated, money market is the market for money and short-term financial assets, which are close substitutes for money and are highly liquid . Box 24.2 gives the characteristics of a developed money market.

Money market generally does not have a formal place of transactions like a stock exchange. Most of the transactions are initiated through oral or telephonic communication, which are subsequently confirmed and documented. The central bank, along with the network of commercial banks , plays a central role in the money market functioning. The central bank acts as the creator and regulator of liquidity while the commercial banks are the predominant creators of short-term assets .

The two institutions together are highly instrumental in the implementation of the monetary policy .

The Indian money market mainly consists of the call money market, bill market and the markets for certificates of deposits, commercial papers and repurchase options (REPO) . The call money and bill markets have been the traditional components while the other components are relatively recent in Origin . RRI has been regulating the money market through the REPOs and thus controlling the liquidity conditions. Following the recommendations of the Chakravarty Committee and the Vaghul Working Group, efforts have been made to broad – base the money market. The relative growth of the different components of the sub-markets of the Indian money market is shown in Table 1.1 . The Table shows the outstanding amounts in the instruments of the different segments of the market in recent years .

Call Money Market

It is the principal component of the Indian Money market . It is the market for loans of very short maturity ranging from overnight loans to loans with short maturity. Such funds are called money at call and short notice . One distinctive feature of such funds and loans is that they can be withdrawn by the lender immediately or at periods of notice of up to fourteen days. Commercial banks are the predominant players in this market . Borrowings in the market are for short period and are raised to meet transitory requirements of the funds .

Call money centers are mainly located in Mumbai, Kolkata, Delhi, Chennai, Ahmedabad and Bangalore . Most of the funds are lent on overnight basis and the rest mostly at a short notice of about two weeks. During the decade 1989–99, the RBI has been permitting more and more players in the call money market. However, since the year 1000 , on the recommendation of the Narasimham Committee, the market has been restricted only to commercial banks, Discount and Finance House of India (DFHI), Securities Trading Corporation of India (STCI) and primary dealers as the market makers. Because of the leading position of banks, it is called Interbank Call Market .

Bank are in a lending position when their reserves are in excess of the minimum Cash Reserve Ratio (CRR) requirements set by the RBI or when they have surplus funds due to low credit – deposit ratio. Conversely, they turn out as borrowers when their reserves fall below CRR requirements or when their credit–deposit ratio is high. Asset–liability mismatches are also among the reasons for the banks to lend or borrow in the market.

Call market rates are inherently Volatile . However, the arbitrary operations of the DFHI, as market makers, have a cooling effect on volatility. The gradual broadening of the interbank call market has also brought stability to the call rates which is important for the growth of the market .

Indian interbank call market is characterized by a large number of borrowers and a few lenders. The State Bank of India is the leading lender which along accounts for more than 50 per cent lending in the market. Variations in the call rate depend, among other factors, upon the liquidity

conditions of the market. In this regard, RBI plays an important role through its various liquidity facilities offered to banks. Fluctuations in call rates are induced mainly on account of the following factors:

- Change in the cash reserve ratio of the banks on a day-to-day basis .
- Asset-liability mismatches .
- Variations in credit-deposit ratio
- Variations in cash balance of the banks
- Periodic advance tax payments by business firms leading to substantial fund withdrawals from the banks compelling the latter to borrow from the market .
- Bunching of oil payments abroad, which reduce the ability of SBI to lend in the market.

During 1996 – 2000, the interbank call money lending rates fluctuated between 52.2 per cent and 0.1 perc ent on the basis of monthly weighted averages. The coefficient of variation was highest at 86 per cent in 1997-98 compared to 12.7 per cent in 1999-2000.

The fund and liquidity position in the market is also significantly impacted by the borrowing operations of the government and transactions in the foreign exchange market (i.e., the transactions of foreign currency against rupee).

The growth of the call market was nearly stagnant during the period 1992 - 95. Since the year 1994 – 95, there has been rapid growth of the market . It has been largely due to the entry of more participants as a result of financial sector liberalization that has taken place over the last decade. Operations of the Discount and Finance House of India and Securities Trading Corporation of India have also significantly contributed to the growth of the market .These institutions are described later in the Chapter.

The Bill Market

Bill market is another important component of the Indian money market which meets the credit requirements of private trade and industry as well as the government and, at the same time, facilitates an efficient system of payment.

Commercial Bill Market

The commercial bill market in India has existed in the traditional Hundi form. The market has been developed, reformed and regulated, following the recommendations of a number of committees and provisions of schemes such as RBI's Bill Market scheme 1952, Narasimham Committee (1970), the Bill Rediscounting Scheme (also called New Bill Market Scheme which continues to-date though in modified form), Sukhmoy Chakravarty Committee and Vaghul Working Group.

Commercial bills are like postdated cheques drawn by the sellers on buyers for the value of the products transacted. In general, commercial bills have a maturity period of up to three months. These are important instruments of short-term finance to industry and trade . These bills are tradable and can be resold any number of times in the money market. The bills can be categorized into demand or sight bills and time or usance bills. The former are payable on demand or at the time of presentation whereas the latter are payable after a certain period of time (generally 30, 60 or 90