Chapter I

INTRODUCTION

Economic growth is a very complex phenomenon. It is a result of numerous factors. Capital formation is one of the most important factor. . The process of capital formation involves three distinct but interdependent activities. First is saving, by which the resources, which may be used for current consumption, are made available for other purposes. The saving consists in forgoing claims to current resources. Second is finance, an activity by which claims to resources which are not used for current consumption are assembled and distributed, or borrowed from other countries, or specially created i.e. creation of money. Third is the investment itself, the resources are actually used for the production of capital goods.[1] Thus, finance is an integral part of the process of capital formation. The role of finance and financial intermediation in the economic growth of India is attempted in this thesis.

Finance and Capital Formation:

In Robinson Crusoe economy, finance as an activity would not exist. In such an economy money would not exist. There

---

[1]Moses Abramovitz, Introduction, in Capital Formation and Economic Growth, a Conference, Princeton University Press Princeton, 1955, p.4.

would be no division of labour between savers and users. Saving and investment would be one single simultaneous decision. There would be one simple decision as to how many hours are to be devoted to production of consumer goods and capital goods. In constrast, a modern society is organised on the basis of division of labour and money exists as a medium of exchange. There exist numerous savers and users of these funds. It is through the market mechanism and elaborate financial institutions that interlinks between savers and users of funds are established.[2]

Finance is a process by which the funds from the numerous savers are collected and made available to the investors. Financial activity takes place due to division of labour between savers and investors. As investment activity is confined to specific groups of businessmen commanding requisite technical knowledge and market information and ability to bear risk, while saving activity is widely diffused as it is carried on by the large number of scattered savers. Savers generally do not possess the requisite technical knowledge and market information to invest their savings, more so they lack ability to take risk. "In the absence of effective financial laws,

---

[2] Simon Kuznets, Capital in the American Economy - its formation and Financing, Princeton University Press, Princeton, 1961, pp.19-20.

agencies and financial institutions, the gap between savers and users becomes serious block to investment."[3]

Financing the Economic Development:

There are two alternative techniques for mobilising the economic surplus to finance the economic development: internal finance and external finance.[4]

Process of internal finance comprises of two principal techniques: self-finance and taxation.[5] The process of self-finance takes place within the business unit itself. The investing unit finances through its own internal resources. These may be depreciation funds and undistributed profits and surpluses. These surpluses often arise out of monopoly power in the commodity market or monopoly over the factors of production[6] or out of the successful innovations or advantageous situations obtaining in foreign markets sometimes in the nature of colonial markets. Often internal sources have been important in the expansion of modern corporations.

As opposed to business units, governments may finance their investments through taxation and inflation. These two

---

[3]Moses Abramovitz., Op.Cit., p. 8.

[4]John G. Gurley and Edward S. Shaw. "Financial Structure and Economic Development", Economic Development and Cultural Chamge, Vol. 15, April 1967, p. 261.

[5]Ibid., p. 261.

[6]Ibid., p. 262.

techniques of finance are too wellknown to hold us up any further.

In the process of external finance saving and investing units are different. Savings take place outside the investing units. Resources are therefore transferred through financial techniques from saving units to investing units. Financial techniques involve various methods of creating debt-asset systems. It is an outcome of division of labour between savers and investors and between financial intermediaties.[7] The problem of mobilizing the savings and channelizing them into various directions among competing units wanting to invest are solved through the market mechanism. And the market rate of interestis the regulator of the volume and direction of investment.[8]

Financial Accumulation and Economic Development:

Financial accumulation means accumulation of financial assets and debt. Financial accumulation takes place along with accumulation of capital. "During economic development as their incomes per capita increase, countries usually experience more rapid growth in financial assets than in national wealth or national product."[9] That is, during the course of

---

[7] Ibid., p. 262.

[8] Ibid., p. 262.

[9] Ibid., p. 257.

economic development ratio of financial assets to national income and wealth will rise. Such was the experience of the advanced countries.[10]

Analysis of Secularly Rising Financial Ratios:

Relationship between financial growth and real growth can be analysed in various ways. In the first place, financial development depends upon the division of labour which can occur only in the context of real development.[11] Finance is associated with the division of labour in three ways as shown below:-

(1) Division of labour in production in the modern economic society involves exchange of factors of production and output, that implies use of money. Diseconomies of the barter system of primitive economy led to the use of money in transactions. It seems as a general rule that money-income ratio during economic development will increase at a diminishing rate and then reach its secular peak.[12]

(2) Finance is also associated with division of labour between savers and investors. Savers give up their claims on consumption and become

---

[10] See Raymond W. Goldsmith, Financial Structure and Development, Yale University Press, 1969. 44,

[11] John G. Gurley and Edward E. Shaw., Op.Cit., p. 258.

[12] Ibid., p. 259.

ultimate lenders. And investors receive these resources and use them for the accumulation of real capital and they become ultimate borrowers. This division of labour leads to issue of primary securities by ultimate borrowers or investors and to acquisition of financial assets by ultimate lenders or savers. Primary securities are liabilities of the non-financial spending units. During economic development, when division of labour between saving and investment becomes more complex, rate of financial accumulation exceeds the rate of growth of national income and wealth. That is, primary security issue-income ratio will rise and when the institutional evolution approaches its limit, issue-income ratio would get stabilised at a high level.[13]

(3) There is a division of labour which promotes growth in quantity and variety of financial assets.[14] When the process of financial accumulation becomes more complex, there develops specialisation between saving and ownership of primary securities. That is, financial intermediaries enter in between ultimate lenders and ultimate borrowers. Financial intermediaries collect savings and pay deposit rate to savers or ultimate lenders. And financial intermediaries assume responsibility for allocation of savings and they charge rate of interest from ultimate borrowers. Financial intermediaries are specialised in issuing various types of indirect securities.

---

[13] Ibid., p. 259.

[14] Ibid., p. 259.

Thus, different types of division of labour lead to different forms of financial development. Division of labour in production leads to the introduction of money. Division of labour between saving and investment promotes growth of primary securities. And division of labour between savings and ownership of primary securities leads to financial intermediation and growth of indirect securities.

Theory and Process of Financial Growth:

How important is the relationship between financial development and economic development, can be understood from the Theory of Finance developed by Gurley and Shaw.[15] Their study explains how financial assets and debts accumulate during the process of development and how financial institutions and financial markets facilitate financial development and through that economic development. John G. Gurley and Edward S. Shaw have shown the importance of the financial development in the context of a Rudimentary Financial System.[16]

[15] See John G. Gurley and Edward S. Shaw., Money in a Theory of Finance, The Brookings Institution, Washington, D.C. 1960.

[16] Much of the subsequent text is based on a part of the text from John G. Gurley and Edward S. Shaw, Money in a Theory of Finance, The Brookings Institution, Washington, D.C. 1960.

(a) Rudimentary Financial System:

Important characteristics of rudimentary financial system in a rudimentary economy are as follows:-

1. There are only three sectors: consumer, business and government sectors. They are non-financial spending units.

2. Money is the only asset in the economy.

3. There are only three markets: for labour services, for current output and third for money.

4. Money is issued by the government monetary system, the only financial institution in the economy.

5. Consumer sector's buying of goods and services is the expenditure of that sector and it gets Income by selling services to other sectors. Consumer sector does not accumulate tangible wealth. Consumers accumulate money balances as an asset.

6. Business sector consists of small unincorporated business firms. This sector holds tangible wealth i.e. stock of capital and money balances as their only financial asset.

7. In this rudimentary economy, there is a very simple structure of financial assets and debt, as money is the only debt that can be issued to obtain external financing for deficit by the deficit spending sectors, and as money is the only financial asset that the surplus spending units can acquire.

Financial Restraint on Real Growth: One of the reasons why it is difficult to achieve satisfactory rate of growth of real output in the rudimentary economy is economic. Because prevailing immature financial system in the rudimentary economy is itself an obstacle to economic progress, as it puts heavy restraint on the growth of real output. And limitations on lending and borrowing hamper real growth in the rudimentary economy.

Given the techniques of production, net increase in output depends on the existing stock of capital and on the level of saving and investment. The existing financial system i.e. immature financial system in the rudimentary economy does not stimulate saving and investment, it becomes obstacle to rapid economic progress in the rudimentary economy, as we shall see below.

Restraint on the Level of Investment: If capital formation is to take place in the rudimentary economy, there must be domestic saving to finance it, as no external borrowing from abroad is permitted. As government sector does not have any income, domestic saving must come from the private sector. And within the private sector, consumer sector's saving is allocated for accumulation of real money balances. Thus, consumer savings along with some business saving also directed to increase in money balances, necessarily flows to government sector. And only business saving not allocated to real money balances is available for private investment. It is the only source of private investment.

There is only one kind of financial asset, as an inducement to saving, offered by the financial system of the rudimentary economy. It does not allow business sector to issue debt of its own. And government sector is also not allowed to issue non-monetary debt. The existing financial system in the rudimentary economy makes no attempt to stimulate private savings, either by offering different kindsof financial assets or by allowing an explicit rate of interest on financial assets. As a result, the propensity to save and rate of growth of capital will be lower.

<u>Restraint on Flow of Saving to Investment</u>: There are two channels for the flow of saving to investment provided by the financial system of the rudimentary economy. Each firm allocates its saving to investment to the extent of excess of saving over real money balances. And all the saving by the consumers and firms that is allocated to the accumulation of real money balances flow to the government sector. Hence, the scope of private firms for allocations of saving to investment is minimised in the rudimentary economy. And if government satisfies incremental demand for money by price deflation, there will not take place specialisation of saving

and investment. There will be no market where firms can compete for private saving. As such there will be no mechanism for collecting and pooling savings of numerous spending units to finance investment on the large scale.

Thus, financial system of the rudimentary economy is inefficient since it does not provide the array of financial assets that will stimulate saving and also the array of financial assets that will allocate savings competitively to investments.

(b) Financial Growth and Security Differentiation:

Now we shall analyse factors determining financial growth or growth of financial assets and security differentiation during the process of financial growth.

First of all we shall analyse immediate determinants of primary security issues. In any period along the growth path, the issues of primary securities by the business firm are equal to the acquisition of financial assets by consumers. Primary securities are equal to the budget deficits of the business firms provided firms do not accumulate money balances. Thus, the ratio of primary security to national income depends on the distribution of spending between business sector and consumer sector relative to the distribution of income between them. If these distributions are the same then there will be no specialisation between sectors in spending and receiving income and both the sectors will have balanced budgets. Hence, there will be no financial growth. Unbalanced budgets of the sectors lead to specialisation in saving and investment and consequently lead to financial growth in the economy.

The factors which lie behind sectoral income and spending distributions and which therefore lie behind the growth of primary securities are as follows:-

(1) Growth rate of output.

(2) The real rental rate (i.e. sum of net profits and interest payments as a percentage of the capital stock).

(3) The capital output ratio.

(4) The rate of interest.

These are the determinants of the size of the business deficit relative to national income and so also of primary securities issues to national income. Let us analyse each of these determinants in the relation to issue-income ratio.

The higher growth rate of output will raise the issue-income ratio because it will increase firms' net investment expenditure relative to their savings and hence it will enlarge the business deficits as a proportion of national income. The higher rate of growth of output will increase the degree of specialisation between the sectors in saving and investment and lead to financial growth. There is thus a direct relationship between financial growth and growth rate of output.

What will happen to issue-income ratio if we change the values of the capital output ratio, the real rental rate and the rate of interest? The higher capital output ratio will raise the issue-income ratio. This is because the higher capital output ratio will raise the level of firms' net investment relative to national income and so also it will raise their deficits relative to national income, and hence, it will also raise issue-income ratio. And higher rental rate will reduce issue-income ratio, because it will reduce the firms deficits relative to national income, as it will increase the firms' net saving.

<u>Growth of Primary and Indirect Securities:</u> Financial growth refers to the expansion of primary securities or to the expansion of primary securities plus indirect securities. So far we have considered only the former. Let us now consider the latter.

During balanced growth process at some stable interest rate, consumers would desire to have a constant proportion of their financial assets portfolios in the form of money balances, primary securities making up the rest. In each period therefore, the monetary system will have to purchase this proportion of primary security issues and create equivalent amount of money. Thus, during any period the growth, all financial assets in the economy would be equal to primary security issues plus indirect securities in the form of money.

It means that total securities, primary securities and indirect securities grow at the same percentage as real output during balanced growth. It means that money-income ratio will remain constant during balanced growth process. At the initial stage of growth, issue-income ratio will be lower than the issue-income ratio in the long-run. Hence, money-income ratio will also gradually increase during growth process. Therefore, total financial assets in the economy will rise relative to national income during the growth process.

Differentiation of Primary Securities: Wide varieties of primary securities appear during the process of financial growth. Primary securities differ from one another, as the issue of each borrower will not be the same in regard to various characteristics. There thus, takes place diversification of primary securities in regard to maturity, liquidity, interest rate, riskiness and differences in the ownership rights. This diversification is a defence against general and specific risks. General risks pertain to macro factors such as changes in the growth rate of output, employment, distribution of income and price level. Heavy gains or losses are involved as a result of operation of these factors. These general risks do not get evenly distributed among all sectors. Some sectors may be more intensely affected. Then there may be more specific risks. Diversification of primary issues by borrowers and diversification of financial assets by lenders are just defence against these general and specific risks.

(c) Monetary and Non-monetary Financial Intermediation:

Financial intermediaries play an important role in the saving and investment process. They are called financial intermediaries because primary securities are their principal assets. And their principal function is to purchase primary securities from ultimate borrowers and issue indirect debt for the portfolios of ultimate lenders.

Broadly, financial intermediaries can be classified into two groups: monetary intermediaries and non-monetary intermediaries. The monetary intermediaries, such as central bank of the country and commercial banks, purchase primary securities and create money. They play the role of administering the payment mechanism. They transfer deposits credit on its ledgers between spending units, whereas non-monetary intermediaries, such as insurance organisations, co-operative institutions, financial and investment companies and other specialised financial institutions, perform the intermediary role of purchasing primary securities and creating non-monetary claims on themselves, which may take the form of savings deposits, shares and equities and other obligations.

Financial Intermediaries in the Saving-Investment Process: Financial intermediaries play an important role in the saving-investment process as they tend to raise the levels of saving and investment and help to allocate more efficiently scarce savings among alternative investment opportunities.

In an economy where financial assets do not exist, spending units will have to invest their savings in new tangible assets. Spending units cannot invest more than their savings, simply because there is no way to finance excess expenditures. And also spending units cannot invest less than their savings because there are no financial assets for putting the excess savings. As a result, spending units will be forced to have balanced budgets i.e. savings will equal investment for each unit. In such an economy, where financial assets are absent, savings, investment and growth rate would tend to be on the lower side. Absence of financial assets in such an economy, will result in inefficient allocation of scarce resources, Superior investment opportunities according to their expected rates of return will not be selected in the balanced budget position of spending units. Selection of an efficient investment project requires unbalanced budgets i.e. for some spending units investment would exceed their savings (i.e. budget deficits) and for others their savings should exceed investment (i.e. budget surpluses).

Financial intermediaries turn primary securities into indirect securities for the portfolios of ultimate lenders. They provide to ultimate lenders a wider variety of financial assets.

The Process of Intermediation: Indirect Finance: When all spending units have balanced budgets, there will be no issue of primary securities and no accumulation of financial assets. It is only when the spending units have unbalanced budgets, that there will be issue of primary securities and accumulation of financial assets. There are three channels through which primary security issues may flow:-

(1) These issues may be sold directly to other non-financial spending units.

(2) They may be sold to monetary intermediaries.

(3) Primary securities may be sold to non-monetary intermediaries.

In the process of intermediation by the monetary intermediaries, the deficit spending units sell their primary securities to the monetary intermediaries and they receive newly created demand deposits. And these deposits are spent by deficit spending units for current output. In this process of intermediation, the deficit spending units have created primary securities, the monetary intermediaries have created money and the surplus spending units have acquired financial assets as a reward for not spending on the current output. The excess of income over spending on the current output have been transferred from surplus to deficit spending units, through the process of intermediation by the monetary intermediaries.

In the process of financial intermediation through non-monetary intermediaries, surplus spending units acquire claims over the non-monetary intermediaries in return for the surpluses they transfer to the non-monetary intermediaries. The non-monetary intermediaries then use these surpluses to purchase primary securities from the deficit spending units. In this process of financial intermediation, the deficit spending units have created primary securities, the non-monetary financial intermediaries have created non-monetary indirect assets and the surplus spending units have acquired financial assets for not spending on the current output.

Objective of the Present Thesis:

The object of the present thesis isto examine the hypotheses derived from theory of financial growth in the context of the experience of Indian economic development between 1951 and 1971. The choice of the period is dictated by the availability of data. At the very outset it should be noted that within this limited period role of finance and financial intermediation would rather refer to the changes that are brought in the financial structure and effects of such changes in economic development. The course of financial intermediation in the theory set out earlier has a distinct place in accentuating economic growth. In fact, finance and financial intermediation are treated as a vehicle to transport the economic system from its rudimentary stage to a dynamic one. Naturally, this would require a study involving a period much longer than two decades. Nevertheless, Indian experience in economic development and changes in financial structure lead to confirm the hypotheses so formulated from a theory of financial growth. The following hypotheses would constitute the core of the thesis.

Hypotheses:

From the above analysis of theory of financial growth, we can deduct a few plausible hypotheses pertaining to financial structure and development. Financial development is closely related with economic development. It takes place along with economic development. It seems that there is a universal path of financial development, marked by certain regularities in the course of economic development.[17] The hypotheses pertaining to the financial structure and development are as follows:-

(1) In the course of economic development with the increase in the degree and complexity of savings and investment process, ratio, issues of primary securities to national income and ratio of outstanding primary securities to national income has a tendency to increase and then get stabilised at a higher level.

(2) The external financing ratio (i.e. ratio of net issues of primary securities to gross Domestic Capital Formation) tends to increase in the early stage of economic development.

(3) The assets of financial intermediaries to national income ratio tends to rise during the process of financial development of the country.

---

[17] Raymond W. Goldsmith., Op.Cit., p.40.

John G. Gurley and Edward S. Shaw and Raymond W. Goldsmith's empirical work on the financial structure and development have strongly demonstrated this fact.

(4) Generally, a country's financial development begins with the monetary system i.e.monetary intermediaries. However, as the country's economic development progresses, the relative share of the monetary intermediaries in the total assets of the financial intermediaries of the country tends to decline and of non-monetary intermediaries tends to increase.

(5) In the process of financial accumulation financial intermediaries mediate between ultimate lenders and ultimate borrowers and the ratio of indirect securities to national income tends to increase.

(6) Generally, financial intermediaries tend to purchase an increasing proportion of primary securities during the process of financial development and financial intermediation ratio tends to increase.

(7) The share of monetary intermediaries in the purchase of primary securities tends to be major one in the initial process of financial intermediation. Over the long run during the process of financial intermediation, the share of the monetary intermedia in the purchase of primary security tends to decline and that the non-monetary intermediaries tends to increase.

(8) During the process of economic development money-income ratio tends to increase in the beginning and then the ratio gets stabilised at a higher level.

Our thesis mainly concentrates on analysis and examination of these hypotheses and some related aspects of financial structure and development.

. . . . .