2. THEORETICAL BACKGROUND OF THE MODEL

2.1 - GURLEY AND SHAW THESIS

One of the most debated arguments in recent years in monetary theory and policy has come to be known as the 'Gurley-Shaw Thesis'.[3] Gurley and Shaw developed a theory of financial institutions that include banking theory. They studied the theory of finance as a market problem. According to them the study of economic system is the study of both financial and real markets. Financial markets include markets for primary securities, i.e., corporate bonds and equities, government securities, mortgages, consumer debt, etc., and market for indirect securities are markets for money, non-monetary indirect securities such as time deposits, savings and loan shares and so on. On the other hand, real markets include markets for goods, both current output and capital stock, and labour services. In their thesis the role of the financial institutions - such as commercial and saving banks, saving and loan associations, credit unions, insurance companies and other - is to channel funds for ultimate savers (or lenders) to ultimate investors (or borrowers) by issuing their own debts (deposits, shares and so forth) for the ultimate savers to buy, and in turn using these funds to buy the debts (corporate bonds, mortgages and so forth) of ultimate investors. Thus where such financial intermediaries do not exist, the flow of saving to investment outlets would be much
smaller with profound effects upon the allocation of resources, the level of income and employment, and the rate of economic growth. According to Gurley and Shaw Thesis, the capacity of underdeveloped economy for growth is limited by its financial system. With no financial assets other than money, the opportunities for efficient transfer of funds from savers to those who invest in capital goods are limited, and the allocation of savings to various potential investment uses is less efficient. This financial system of the rudimentary economy is inefficient since it provides neither the array of financial assets that would stimulate the saving nor the array of financial markets that would allocate saving to investment. But it is clearly better than no financial system at all because it provides one financial asset, money. To make further progress, Gurley and Shaw allowed the economic units to issue securities of their own, and these are the primary securities or claims against non-financial economic units.

In the early stages of development they use to take the form of face-to-face loans. However, primary securities stimulate real growth by increasing the financial incentives to save and thereby make it more likely that the level of saving and investment will be raised, face-to-face loans are not a good way to get primary securities distributed from borrowers to lenders. There is always a conflict between borrowers and lenders, between the types of securities that
borrowers can best issue and the types of securities that lenders desire to accumulate. This is where financial intermediaries come in. As Gurley has indicated, "These institutions place themselves between ultimate borrowers and lenders, purchasing the primary securities of the borrowers and issuing claims against themselves (indirect securities) for the portfolio of lenders."[4]

Thus financial institutions solve the conflict between savers and investors by making primary securities take the form of financial assets that savers want at a reasonable price that does not impede the process of development. With respect to monetary policy Gurley and Shaw presented four main points:[5]

1. Commercial banks are not much different from other financial intermediaries, they are all important lenders, and create a supply of financial claims.

2. Monetary policy is not very effective in preventing inflation because it controls only the lending of the commercial banks.

3. Monetary policy is ineffective because its forces are directed to commercial banks alone, while permitting to continue to expand.

4. Thus, similar controls, such as reserve requirements should be applied to other financial institutions besides commercial banks, to make monetary policy more effective.
In other analysis, Gurley and Shaw adopted the framework of the neo-classical economics, with its assumption of full employment, price flexibility, absence of money illusion, and distribution effects, and so on.

They showed that money is not a veil, it may have an important role to play in determining the level and composition of output. The role of money, according to their thesis, becomes increasingly important as one moves further and further away from neo-classicism. They believed that it is important to have a broad view of the economy, to see how the money market fits into the other markets of economy, and to see the interplay that takes place among all markets. Finally Gurley and Shaw argued that since non-bank financial intermediaries offer liabilities which are closer substitutes for money than for primary securities, and since these intermediaries hold reserves of money in small amounts, the growth of these institutions tends to reduce the demand for money.

2.2 - GOLDSMITH'S EMPIRICAL EXTENSIONS
OF GURLEY AND SHAW THESIS

The theoretical study of finance by Gurley and Shaw is closely related to Goldsmith's empirical studies. One of the most recent work by Goldsmith, is the study on Financial Structure and Development.[6] In this work, Goldsmith believes that the study of financial development is the study of the change in financial structure. The financial structure of
any country is the nature of financial instruments and financial institutions of the country. Financial instruments differ in their importance among countries. There is a great variety of financial instruments such as money (currency and demand deposits), time and saving deposits, claims, securities, etc. On the other hand, financial institutions are one of the several types of intermediate economic units. They are characterized by the fact that the financial instruments constitute their activities. Goldsmith has indicated that countries differ in the way in which their financial structure has changed over time, and these differences are evident in the sequence in which the different types of financial instruments and institutions have made their appearance and their relative rates of growth. He also indicated that in the course of economic development a country's financial structure grows more rapidly than her national product or national wealth, but this increase is not a process without limit. Once a certain stage of development is attained, the growth in the financial structure tends to level off. The ratio of the total financial assets to GNP in many of the poorest countries is not higher than one-half. The financial ratio rises to one and one and one-half for somewhat prosperous countries such as Mexico, Brazil, Malaysia, and from two to three for other countries higher up in their income level. A few economies like the United States have financial assets close to ten times their GNP. The study of Goldsmith has also shown that financial development in the
modern sense has started with the banking system. As economic development has progressed, the share of the banking system in the assets of all financial institutions has declined. The assets of the banking system (Reserve Bank and commercial banks) are now considerably below those of all other financial institutions taken together in the economically most advanced countries, while the opposite relationship is still common in less developed countries. According to Goldsmith's findings the assets of the central bank in the less developed countries amount at least half of those of the commercial banks or of all financial institutions, and in many cases they exceed them. Comparing this with the situation in developed countries, Goldsmith found that the assets of central bank in the developed countries come to about one-third of those of commercial banks and less than one-sixth of the assets of all financial institutions. Accordingly, Goldsmith drew attention to the role of the central banks in less developed countries compared to their position in the financial system of the developed countries by indicating, "Obviously then the function of central banks is different in under-developed countries. Here they are the premodial, all-purpose financial institutions. They cannot just be a copy of the central banks in developed countries.

"Central banks in the less developed countries must pioneer many financial activities, even in the field of long-term credit, which are handled by separate institutions in
developed countries, and which may be taken over by such institutions in the now under-developed countries in the course of their financial growth." [7]

Finally, Goldsmith indicated that the main determinant of a country's financial structure is the separation of the functions between saving and investment among different economic units. Also, as real income and wealth increase in the aggregate and in per capita, the size and complexity of the financial structure grow.

2.3 - A FRAMEWORK OF A COMPLETE FINANCIAL MODEL

The basic idea of this model is found in the study done by Professor R.W. Goldsmith on *Financial Structure and Development*. Prof. Goldsmith has calculated some ratios relating to the total assets of the financial institutions and the Gross National Product in 35 countries. His work covers the period 1881-1963. However, this model will cover the period from 1950 to 1979 only to test the reliability of the model. It can be generalized to other group samples also. More important than this, is that Prof. Goldsmith's work on regression equations covers a group of countries with no detailed explanation for individual countries. This, of course, fulfills his aim of the study. But the present model is developed keeping in view Indian economy as an entity.
In addition, the inclusion of the time element as one of the explanatory variables seems to be of particular importance in the case of India and particularly time-span covered in this model.

The reason for this belief is quite clear. It is the structure of financial institutions in the Indian Economy that have been subjected to many revolutionary changes among which nationalization of banks back in 1969 is the most important. A further modification on Goldsmith's basic model is that it deals with credit as well as investment rather than to deal only with total assets of financial institutions as Prof. Goldsmith has done. The more detailed model to apply on the Indian economy will not only emphasize the relationship between the development of total assets of financial institutions and the stage of development, but also shed more light on the question of the assets more influenced by the development process, i.e., the credit and investments developments in these institutions.