Chapter 1

Financial liberalization and economic growth – A Survey of the Literature
CHAPTER 1: FINANCIAL LIBERALIZATION AND ECONOMIC GROWTH – A SURVEY OF THE LITERATURE

1.1: OVERVIEW

There has been a pervasive tendency towards an increase in global financial flows in recent years. Such flows have surged in volume, in both the developed and the developing world, creating new opportunities for economic benefit and difficult challenges for policymakers, especially in the developing countries.

It is generally believed that the upsurge in financial flows is a new phenomenon. But this is not true. In the fifty years before the First World War of 1914-1918, there was also a massive flow of private capital across borders. Much of it flowed into bonds financing railways, roads and other infrastructure projects. The global financial system, at that time, ran according to the rules of the classical gold standard. Thus, we can say that the present phase of globalization represents the re-emergence of finance capital on a global scale. The striking parallels between that era and the current era of globalization have been described in many recent studies (Taylor and Obstfeld, 2004), though there are also striking differences as well, relating to the nature, motivation and consequences of the capital flows. The parallels raise a few questions about the evolution of the global economy in the nineteenth century, its collapse in 1914, and the rebirth of globalization at the end of the twentieth century.

International financial flows are basically of two types – FDI and FII. The difference between the two revolves around whether or not the investor intends to take an active role in the management of the enterprise, the assets of which are being acquired. Bonds, debentures and the like are clearly portfolio
investment insofar as they confer no management or voting rights on their owners. On the other hand, foreign branches, wholly owned subsidiaries and joint ventures are clearly direct investment. Although ownership of at least some voting stock is usually seen as a requirement for direct investment status, the distinction between the two however, becomes increasingly difficult to establish as the proportion of foreign ownership falls or is dispersed among various owners and economies.

There has been a rapid rise in trans-border capital mobility in the past few decades, especially to the developing countries. One of the major factors has been the deregulation and globalization of financial markets which has been complemented by the wave of the CAL, as part of Structural Adjustment Programmes supported by the IMF and the World Bank in the developing countries. This is coupled with lower interest rates and institutionalization of savings in the developed countries.

Therefore in response to the increased globalization of real and financial markets and debt crisis, developing countries are promoting important structural changes in their economies. Government intervention in the economy and excessive regulation and protectionism are ending through the implementation of significant plans for free trade and economic integration, privatization of state enterprises and strengthening of local market activity. Thus local markets and institutions are undergoing important “modernization” changes. Underlying these changes, it is claimed, are two basic facts needed to promote economic development: the need to become competitive at the international level in order to participate in and benefit from expected global changes in trade and finance, and the need for increasing local savings and
finding alternative ways to foreign debt financing to mobilize greater local and international resources for investments (Ortiz, 1993).

These processes of modernization have led policymakers and financial economists to reassess the role of the financial sector and its markets and institutions. For this reason, appraising the contribution of the capital markets to economic development is receiving increased attention.

Each economy has its own financial system, constituted by financial institutions, instruments and markets and they keep changing as the economy develops. The financial sector acts as a conduit for the transfer of financial resources from the net savers to the net borrowers. A financial system's contribution to the economy depends upon both the quantity and quality of its services and the efficiency with which it provides them.

There are two broad based systems of productive financing:

a) credit based system, where banks & financial institutions play a major role
b) capital market based systems.

However, for most developing countries a prominent role for the capital market in the allocation of financial resources is a recent phenomenon. It was only during the 1980s and 1990s that many developing countries have been engaged in far reaching reforms of their financial systems, liberalizing them and making them more market-oriented, with the active encouragement of the World Bank, particularly through its affiliate the International Finance Corporation (IFC). An important feature of the development of the financial sector in many developing countries is the very fast expansion and growth of their stock markets. This is favoured not just by the Bretton Woods Institutions, as one would expect, but by several economists as well. The World Bank is
actively involved in fostering stock market development in the developing countries and in assisting and encouraging them to open up to foreign portfolio investment. In fact there has been a rapid extension of the Third World stock markets during the 1980s and 1990s, in fact much faster than the rate of growth in the developed country stock markets.

Moreover support for the development of the stock markets also came from some other quarters as well. Zhao Zhi Yang, the former general secretary of the Chinese Communist Party, provided an ideological justification for the use of the stock markets by a socialist economy. He suggested that for the development of a socialist economy, it is necessary to use various market forces, including the stock market; taking advantage of them by minimizing their harmful effects.

Apart from their role in domestic financial liberalization, the stock markets have also been important in external financial liberalization of the developing countries. They have emerged as a major channel for foreign capital flows to the developing countries, both FDI and FII, particularly the latter. However, it is quite important to know both for the policy-makers as well as for academic research, the impact of these developments on industrialization and long term economic growth in the developing countries. The purpose of our study therefore is to basically look into this issue. In the course of the present chapter, we are going to present a survey of the literature on the relationship between financial liberalization and economic growth, with particular emphasis on the stock markets. We are going to look at the role of the stock markets in the liberalization process in the developing countries, particularly the stock markets in India.
1.2: A SURVEY OF THE LITERATURE ON THE RELATIONSHIP BETWEEN

FINANCIAL DEVELOPMENT AND ECONOMIC GROWTH

As far as the role that financial development play in the growth process of developing countries, the literature distinguishes between four different possibilities (Jha, 2003). One branch of the literature argues that economic growth is largely the result of factors, such as savings and investment and technological progress emanating from the real sector of the economy. Hence they contend that financial development and economic growth are not causally related. A second view argues that financial development follows economic development. Economic growth, it is argued, induces changes in financial institutions and practices. Financial development is, thus, demand driven. A third view argues that financial development is a determinant of economic growth. This school of thought argues that financial development is one factor, but an important factor, influencing economic growth. One version of this hypothesis argues that financial development is a precondition for economic growth whereas a second version argues that sophisticated financial systems help invigorate the climate for rapid economic growth provided there are no impediments to economic development. A fourth (and final) point of view attributed to authors such as Diamond and Dybvig (1983) and Keynes (1936) states that financial development is an obstacle to economic growth. This is because of the inherent instability of the financial system. Thus this school would argue that there is a role for government intervention in the working of financial markets.

The thesis that financial development can influence economic growth and structural change has strong theoretical underpinnings in general equilibrium
analyses that identify two distinct, yet complementary channels. The first, sometimes called the "total factor productivity" (TFP) channel, emphasizes the role of innovative financial technologies in ameliorating the informational asymmetries that hinder the efficient allocation of funds and the monitoring of the resulting projects. Development of the banking sector exerts a causal impact on economic growth and its sources i.e. total factor productivity growth, physical capital accumulation, and private saving. For example, let us assume that there is a fixed cost to acquire information about a production technology. Without intermediaries, each investor must pay the fixed cost. However in response to this information cost structure, groups of individuals may form (join or use) financial intermediaries to economise on the costs of acquiring and processing information about investments. Instead of each individual acquiring evaluation skills and then conducting evaluations, an intermediary could do it for all its members. This allows investors' resources to flow to their most profitable use and enable them to earn a higher return (Townsend, 1979; Greenwood and Jovanovic, 1990). Besides identifying the best production technologies, financial intermediaries may also boost the rate of technological innovation by identifying those entrepreneurs with the best chances of successfully initiating new goods and production processes (King and Levine, 1993b).

However Krugman (1994) attacked the idea of an Asian economic miracle (based on the TFP channel). He argued that East Asia's economic growth had historically been the result of capital investment, leading to growth in

---

1 These links were posited as early as 1912 in the writings of Joseph Schumpeter, and were later refined considerably in seminal contributions by Gurley and Shaw (1955), Goldsmith (1969), McKinnon (1973) and Shaw (1973).
productivity. However, total factor productivity had increased only marginally or not at all. Krugman argued that only growth in total factor productivity, and not capital investment, could lead to long-term prosperity.  

The other channel, which is based on the "debt accumulation" hypothesis of Gurley and Shaw (1955) and formalized more recently by Bencivenga and Smith (1991) and Rousseau (1998), focuses on the spread of organized finance at the expense of self-finance and the former's ability to overcome indivisibilities through the mobilization of otherwise unproductive resources. Bencivenga and Smith (1991) suggest that the funds available to the banks from the depositors can be invested in productive capital by economizing on liquid reserve holdings that do not contribute to capital accumulation. In other words, banks reduce investment in liquid assets relative to the situation in an economy lacking intermediaries where each individual must self-insure against unpredictable liquidity needs.

In 1973, McKinnon and Shaw wrote their seminal work on the impact of financial liberalization. However the arguments of McKinnon and Shaw differ. McKinnon's argument is that money holdings and capital accumulation are complementary in the development process. Because of the lumpiness of investment and the reliance on self-finance, agents need to accumulate money balances before investment can take place. Positive (and high) real interest rates are necessary to encourage agents to accumulate money balances, and investment will take place as long as the real rate of return on investment exceeds the real rate of interest. Shaw, on the other hand, stresses the

---

2 Krugman would be seen by many as prescient after the financial crisis in East Asia became full-blown, though he himself stated that he had not predicted the crisis or foreseen its depth.
importance of financial liberalization for financial deepening, and the beneficial effect of high real interest rates on the encouragement to save, and the discouragement to invest in low yielding projects. The increased liabilities of the banking system, resulting from higher interest rates, enable the banking system to lend more resources for productive investment in a more efficient way. To quote Shaw 'measures to raise real rates of return on financial assets, to reduce the variance of returns, and to improve financial technology, along with measures in non-financial areas, extend savers' horizons over both space and time'.

However Campbell and Mankiw (1990) concluded that it is reasonable to assume that not all households have access to credit markets, and hence, some households have no ability to smooth consumption over time. Thus, for such liquidity-constrained households, consumption decisions are entirely determined by current income. Thus, on theoretical grounds it can be argued that a relaxation of liquidity constraints will be associated with a consumption boom and a decline in aggregate saving. More specifically, Campbell and Mankiw postulated that there are two types of households in the economy: One type of household, $\lambda$, is liquidity constrained and their consumption is entirely determined by the evolution of current income, while the remaining type $(1 - \lambda)$, has free access to capital markets and can smooth their consumption intertemporarily. Such a theoretical development led these authors to challenge the implicit McKinnon-Shaw (M-S) assumptions that were based on a homogenous household set in which it was assumed that all relevant households had free access to capital markets within the domestic economy.
Not only that, the M-S hypothesis can be challenged on the ground that it was implicitly assumed that the economy is operating at a full employment level, which is not plausible for most of the developing countries. According to Ostry and Reinhart (1992) increases in real interest rates will affect consumption/saving decisions in varying degrees. In countries where the representative household is close to subsistence consumption, consumption (and saving) will not be sensitive to changes in the real rate of interest. Only in wealthier countries would consumption decline (and saving increase) following an increase in real interest rates. Hence, in this analysis the magnitude of the increase in saving following the higher real interest rates associated with financial liberalization will depend on the level of income (which was used as a proxy for how close are actual consumption levels to subsistence levels).

However keeping in mind the social priority aspect, the presence of public financial institutions is important for the smaller borrowers. It can be argued that increasingly profit conscious institutions might not be inclined to take many risks with smaller, newer potential borrowers. Some financial institutions are part of broader conglomerates, and can be expected to use the funds channeled through them to the benefit of the other parts of the conglomerate, not to previously “disfavoured groups”. Improved attractiveness of the formal financial institutions may draw funds away from the informal financial market, to the detriment of smaller borrowers whose credit access is primarily in that market, and hence deter the growth of smaller firms (van Wijnbergen, 1983). A similar pattern is observable in India when banks give agricultural credit to the farmers. But it is difficult for the lenders to supervise the activities of the farmers; whether the money is really utilized for agricultural
activities or for any other purpose. The banks in the public sector provide loans to them, giving social priority precedence over the risks associated with it, as the agricultural output is quite often affected due to the monsoon failures. In this respect the private sector banks and other financial institutions, will not be encouraged to undertake risks.

The importance of financial intermediation in economic development has been stressed in many studies. Economists have different views regarding the importance of the financial system for economic growth. While some duly acknowledge the link, others vehemently oppose it. For example Walter Bagehot (1873) and John Hicks (1969) argued that financial system played a critical role in igniting industrialization in England by facilitating the mobilization of capital for "immense works". On the other hand Joan Robinson (1952) declares that "where enterprise leads finance follows". In other words, economic development creates demand for particular types of financial arrangements, and the financial system responds automatically to these demands. In fact, some economists like Robert Lucas (1988) just do not believe that finance-growth relationship is important; asserting that the role of the financial factors is badly overstressed. Before we consider the channels through which the stock market may help or hinder economic development, we discuss the role of finance in overall economic growth from alternative economic perspectives.

Before moving on to the two main economic perspectives discussing the role of finance in overall economic growth, i.e. the Mainstream (New Classical) Theory and the Keynesian Theory we need to look at the theory in the pre-Keynesian era when it was mainly Joseph Schumpeter (1911), who emphasized the importance of the financial sector in economic development. He argued that
the services provided by the financial intermediaries in the form of mobilizing savings, managing risk, screening and monitoring investment projects and reducing transaction costs stimulate technological innovation and economic development. A recent attempt to explore this aspect of the debate has been attempted by King and Levine (1993a) who have argued that Schumpeter (1911) may very well have been 'right' with the suggestion that financial intermediaries promote economic development. Schumpeter's theory of economic development contends that well-functioning banks spur technological innovation by identifying and funding those entrepreneurs with the best chances of successfully implementing innovative products and productions processes.

This finance-development link, however, is typically not the economic mechanism most closely associated with Schumpeter. The standard statement of the Schumpeterian vision is of "creative destruction," a process by which invention and innovation replace old production methods and goods with better procedures, commodities, and services. Yet, an integral part of the Schumpeterian theory is that financial intermediaries make possible technological innovation and economic development. "The banker ... authorizes people, in the name of society as it were, to ... innovate" (Schumpeter, 1911, p. 74). Therefore in its essence, Schumpeter's theory presents a co-evolution between the financial and the real sectors of the economy, in which the financial sector plays a major causal role. All these elements also feature in modern interpretations of financial activities, which stress their importance in increasing market efficiency by mitigating information asymmetries, and reducing transaction costs.

1 Shleifer (1986)
1.3: MAINSTREAM (NEW CLASSICAL) THEORY

The standard argument presented by the Mainstream (New Classical) Theory is that the services provided by the financial sector help to promote investment, which in turn leads to economic growth.

1.3 A: GURLEY AND SHAW HYPOTHESIS

Gurley and Shaw (1955) were one of the earlier proponents of the theory, who described financial innovation as a dynamical process, which both causes, and is caused by the development of the real sector. They also stressed that the function of the financial markets is to channel savings toward investment, and the development of the financial sector is supposed to increase the efficiency of this process. This in turn promotes economic growth as financial intermediation helps to finance the projects within an economic system.

1.3 B: McKINNON - SHAW HYPOTHESIS

Following Gurley and Shaw, McKinnon (1973) and Shaw (1973), in separate but broadly similar contributions, explicitly sought to relate capital market developments to long run economic growth in the developing countries. Based on empirical studies dealing with the experiences of both developed and developing countries, their basic ideas supported and modeled the creation of innovative “supply leading” financial institutions, whereby financial innovation can promote economic growth. Financial innovation includes the creation of new and diversified financial assets, and new and improved services. In other
words, policies oriented in this way promote "financial deepening," i.e., an increase of financial assets in relation to output. This in turn leads to increased savings, increased corporate indirect financing, through growing financial intermediation and monetisation of the economy, where financial instruments are issued by the financial intermediaries. Thus corporations are able to invest beyond their own resources. They also stressed the fact that financial repression, whereby in many developing countries the government holds the interest low and provide subsidized credits either to favoured sectors or to themselves, is inimical to long term economic growth. They argued that liberalization of these repressed credit markets will foster development, since raising interest rates leads not only to higher savings but also to more efficient use of investment resources.

However, there are inherent problems associated with the M-S hypothesis. Their hypothesis is based on the assumption that savings determine investment and a full utilization of resources is always guaranteed, which is not always true. Moreover their argument refers only to financial saving, which is only one type of saving. Financial saving may increase as interest rates are liberalised, but there may simply be a substitution between financial assets and other assets, leaving total saving unchanged. Most studies of saving in relation to the rate of interest do not distinguish between financial saving and total saving, but where they do, financial saving is shown to be very responsive, while total saving is not. Warman and Thirlwall (1994) in their study of Mexico show the sensitivity of financial saving to the real rate of interest (and also to the interest rate differential between Mexico and the US). This sensitivity has also been found for Egypt over the period 1966-90 (African Development Report, 1994, Hussein and Mohieldin, 1997). Financial saving is
significantly related to the real interest rate lagged one period, (as well as to the
level of real income and the inflation differential between Egypt and the US).

As far as total saving is concerned, however, most of the empirical studies
and surveys of the results of financial liberalisation are extremely cautious in
their conclusions. In respect of the financial liberalisation experience of five Asian
countries Cho and Khatkhate (1990) concluded that financial reform, whether
comprehensive and sweeping or measured and gradual, does not seem to have
made any significant difference to the saving and investment activities in the
liberalized countries. Fry (1995) an ardent advocate of financial liberalisation,
now concedes that if an effect on saving exists at all, it is relatively small and that
positive interest effects are easier to find in Asia than in other parts of the world,
but even in Asia the effects appear to have diminished over the past two decades.

Moreover, the rate of interest is a matter of the monetary policy of the
government and would play no role in the allocation of credit as suggested by
McKinnon and Shaw. Not only that, they also suggest that the stock market is
supposed to encourage savings by providing households with an additional
instrument which may better meet their risk preferences and liquidity needs.
Thus, the propositions emanating from the M-S hypothesis can thus be criticized
on the grounds that they focus attention only on the credit-induced supply-side
effects of financial liberalization. Credit-induced demand considerations are never
taken into account, let alone any possible short-run conflict with the celebrated
targets. As Dornbush and Reynoso (1989) best put it, “...the financial
liberalization paradigm (the liberal framework) seems like supply-side economics -
a kernel of truth and a vast exaggeration” (p. 205).
1.3 C: RECENT PROONENTS OF THE MAINSTREAM THEORY

Among the recent proponents of the theory, we can identify two channels through which the functions performed by the financial system leads to economic growth. One of the channels of growth is capital accumulation and the other is technological innovation.

Robert Lucas (1988) has developed a growth model where the functions performed by the financial system affect the steady-state growth by influencing the rate of capital formation. The financial system affects capital accumulation either by altering the savings rate or by reallocating savings among different capital producing technologies.

Grossman and Helpman (1991) and Aghion and Howitt (1992) developed a second class of growth models on technological innovation, which focuses on the invention of new production processes and goods; the functions performed by the financial system affect the steady-state growth by altering the rate of technological innovation.

Specifically the functions performed by the financial systems are:

- facilitate the trading, hedging, diversifying, and pooling of risk,
- allocate resources,
- monitor managers and exert corporate control,
- mobilise savings, and
- facilitate the exchange of goods and services.
The importance of financial system in economic development also lies in the fact that they provide liquidity without jeopardizing the long run commitment of high return projects, as the savers do not like to relinquish control of their savings for long periods. This is the basis of argument put forward by Hicks (1969) regarding the industrial revolution in England, which according to him, was primarily caused by capital market improvements that mitigated liquidity risk. Hicks maintains that the products manufactured during the first decades of industrial revolution were invented much earlier, and they required large injections and long run commitments of capital. The critical new ingredient that ignited growth in England in the eighteenth century was liquidity in the capital market, by which savers could hold assets, like equity, bonds and demand deposits that they can sell quickly and easily if they seek access to their savings. Simultaneously capital markets transform these liquid financial instruments into long-term capital investments in illiquid production processes. He further stresses that since the industrial revolution required large commitments of capital for long periods, it would not have occurred without this liquidity transformation.

However, Hobsbawm (1962) argued that Industrial revolution in the early years was financed mainly by loans from friends and relatives and had no link to any capital market as such. He stresses further that there was in fact no capital market in England in that period as we have today.

It is generally pointed out that following financial liberalization, there is a positive impact on the rate of interest, which increases the level of savings in the economy. But contrary to this notion, a large number of studies have pointed out that the high level of savings in Japan and other East Asian
countries was not because of high interest rates but expansion of banks into rural areas and the availability of low yielding but safe deposit instrument. There is also a group of studies that tests the existence of a non linear effect of interest rates on savings. Reynoso (1989) found that savings increase rapidly as real interest rates move from sharply negative to just below zero. However, this effect levels off, as the interest rates become positive and becomes negative, as real rates become highly positive.

Thus most of the literature on interest elasticity of savings concludes that a low positive real interest rate is ideal to maximize savings. The question that arises then is: has financial liberalization been able to produce such interest rates? Most of the countries have moved away from negative real interest rates after liberalization but some moved quickly to interest rates that were not only positive but very high in real terms. Following deregulation, Australia, Chile, Malaysia, New Zealand, Taiwan, Thailand and US, all experienced sharp increases in interest rates. There were some countries where the interest rates have fallen like Israel, Italy and United Kingdom. In Hong Kong and Singapore, which have had liberalized financial sectors, real interest rates have in general been positive and moderate in real terms.

Economists have in the recent past modeled the emergence of financial markets in response to liquidity risk and examined how these financial markets affect economic growth. In Levine (1991), savers receiving shocks can sell their equity claims on the profits of the illiquid production technology to others. The market participants simply trade in impersonal stock exchanges. Thus with liquid stock markets, equity holders can readily sell their shares, while firms have permanent access to the capital invested by the initial shareholders. As
stock market transaction costs fall, more investment occurs in the illiquid, high return projects.

Moreover, different production technologies may have a wide array of gestation periods for converting current output into future capital, where long run technologies enjoy greater returns. Investors, however, may be reluctant to relinquish control of their savings for very long periods. Thus, long-gestation production technologies require that ownership be transferred throughout the life of the production process in secondary security markets (Bencivenga, B. Smith & Starr, 1995). But at the same time it must be borne in mind that greater liquidity may induce a reallocation of investment out of initiating new capital investments and onto purchasing claims on ongoing projects. This may lower the rate of real investment enough to decelerate growth.

According to Diamond (1984) information acquisition costs create incentives for the emergence of financial intermediaries. Instead of each individual firm acquiring evaluation skills and then conducting evaluations, an intermediary can do it for all its members. Economizing on information acquisition costs facilitates the acquisition of information about investment opportunities and thereby improves resource allocation. Moreover Diamond (1984) reiterates that if borrowers must obtain funds from many outsiders, financial intermediaries can also economize on monitoring costs as the borrower is monitored only by the intermediary and not by all individual savers.
1.3 D: EMPIRICAL STUDIES SHOWING THE POSITIVE INFLUENCE OF FINANCIAL DEVELOPMENT ON ECONOMIC GROWTH

Several studies conclude that financial development contributes positively to economic growth. Some of the works are discussed below.

Goldsmith (1969)

In considering the relationship between economic growth and aggregate measures of how well the financial system functions, a seminal work in the area was done by Goldsmith (1969). He uses the value of financial intermediary assets divided by the GNP to gauge financial development, under the assumption that the size of the financial system is positively correlated with the provision and quality of financial services. Using data on 35 countries from 1860 to 1963, he observed that there was a rough parallelism between economic and financial development, if period of several decades are considered and there were even indications that in a few countries for which the data was available that periods of rapid economic growth have been accompanied, though not without exception, by an above average rate of financial development.

However there were several weaknesses in Goldsmith's study, the more important ones being that his study does not systematically control for other factors influencing economic growth and that the close association between the size of the financial system and economic growth does not identify the direction of causality.
King & Levine (1993)

Recent researchers like King and Levine (1993b) have taken steps to identify some of these weaknesses. Using cross-country analysis of 80 countries for the period 1960-89, they systematically control for other factors affecting long run growth, examine the capital accumulation and productivity growth channels, construct additional measures of the level of financial development and analyze whether the level of financial development predicts long run economic growth. They find a strong positive correlation between the financial and growth indicators as well as for long run real per capita growth rates, capital accumulation and productivity growth.

Other major studies

In the literature, which argues a positive relationship between financial sector development and economic growth, a majority of authors agree that the growth stems from increased efficiency in allocation of investment rather than a larger volume of investment. Theoretical studies such as those by Jeremy Greenwood and Boyan Jovanovic (1989), Valerie Bencivenga and Giles Saint Paul (1992) estimates that some 75 per cent of the positive correlation between financial intermediation and economic growth is due to increased investment efficiency rather than an increased volume of investment.

If one were to look at the individual country studies, one would see a similar trend. Some individual country studies are discussed below.
Ecuador

Fidel Jaramillo, Fabrio Schianterelli and Andrew Weiss (1992) find that, after controlling for firms' other characteristics, there was an increase in the flow of credit to technologically more efficient firms after financial liberalization. This result was shown to be robust to changes in assumption about production function and estimation methods. It was the larger Ecuadorian firms that were more technologically efficient; so the flow of credit moved from smaller to larger firms after liberalization. In the period prior to reform, the small scale firms were subsidized. The shift in credit towards large firms was therefore a case in which, credit shifted to the area that had been earlier discriminated against under the system of repression. But at the same time it must have employment effects and distribution effects; leaving these out makes the notion of "investment efficiency" an inadequate indicator of progress.4

Indonesia

Here credit was reallocated from manufacturing and agriculture to other sectors after financial deregulation. Studies by Siregar (1992), Harris, Schianterelli and Siregar (1992) find that, after liberalization, the more technologically efficient the firm, the greater the proportion of new credit it received. Credit tended to increase for both small and large firms, whereas it decreased for medium firms.

4 A similar situation can be observed in India, where the peasants are rationed out.
Korea

Atiyas (1992) presents evidence that small firms gained improved access to external finance after liberalization. Credit flows moved from light industrial manufacturing to services, utilities and construction.

Mexico

In a similar study, Gelos (1977) provides econometric evidence that financial constraints were eased for small firms in Mexican manufacturing sector following financial liberalization. Morisset (1993) finds that although the effect of financial liberalization on the quantity of investment was weak, the effect on quality of investment was consistently positive.

However, the literature on correlation between financial liberalization and savings is ambiguous with contradictory evidence.

Egypt

Hussain (1996) calculates that, in the three years following liberalization, financial savings in Egypt increased on an average by 6 per cent of GDP over the level that would have occurred in the absence of financial liberalization.

United Kingdom

On the other hand Bayoumi (1993) estimates that financial deregulation in the United Kingdom resulted in a decline in the personal saving ratio by 2.3 percentage points over the 1980s.
New Zealand

Chapple (1991) finds that both household and corporate saving has fallen since liberalization in New Zealand.

United States

In the United States, the savings rate has fallen steadily since deregulation in the 1980s, which is mainly because of consumer credit.

There is also evidence of lower savings rate following liberalization in Argentina, Colombia and Philippines (Williamson and Mahar, 1998).

In addition to the evidence that saving rates might actually decrease after financial liberalization, there have been several cases where financial liberalization has led to a consumption boom. Three separate studies by Lopez-Mejia, (1991), Bayoumi (1993) and Darby and Ireland (1994) show that financial liberalization resulted in a consumption boom in the United Kingdom in the late 1980s. Similarly Mexico and Thailand experienced large increases in consumer lending after financial liberalization. Mexican banks rapidly expanded credit-card issues and loans for mortgages and automobile purchases after privatization. Thai lending for car purchases made Bangkok the largest market for Mercedes Benz automobiles outside Germany, prior to the East Asian financial crisis. Thus the evidence does not support the original McKinnon and Shaw claim that financial liberalization will lead to an increase in savings.

Sirri and Tufano (1995) suggest that mobilization of savings involves the agglomeration of capital from disparate savers for investment. Without access to multiple investors, many production processes would be constrained to
economically inefficient scales. It also creates small denomination instruments, which provide opportunities for households to hold diversified portfolios and to increase asset liquidity. They further suggest that financial systems that are more effective at pooling the savings of individuals can profoundly affect economic growth.

Besides easing savings mobilization and thereby expanding the set of production technologies available to an economy, financial arrangements that lower transaction costs can promote specialization, technological innovation and economic growth, as specialization requires more transactions than under autarky. This has been the argument of Adam Smith, who felt that money as a medium of exchange has an advantage over the barter system. But this is not supported in Greenwood and B. Smith (1997) who argue that a market with lower transaction costs does not stimulate the invention of new and better production technologies. Instead, lower transaction costs expand the set of production processes that are economically attractive. They do not explain the emergence of financial instruments or institutions that lower transaction costs and thereby produce an environment that naturally promotes specialized production technologies.

Levine (1997) tries to amalgamate the individual financial functions into a simple parable about how the financial system affects economic growth. Consider Mr. X, who has just developed a design for a new truck that extracts rocks from a quarry better than existing trucks. His idea for manufacturing trucks requires an intricate assembly line with specialized labour and capital. Highly specialized production processes would be difficult without a medium of
exchange. He would find it prohibitively costly to pay his workers and suppliers using barter exchange. Financial instruments and markets that *facilitate transactions* will allow and promote specialization and thereby permit him to organize the truck assembly line. Moreover, the increased specialization induced by easier transactions may foster learning-by-doing and innovation by the workers specializing on their individual tasks.

Production requires capital. Even if Mr. X had the savings, he would not wish to put all of his savings in one risky investment. Moreover, he wants ready access to savings for unplanned events and if he is risk averse, his desire for liquidity would create incentives for him to (a) diversify the family’s investments and (b) not commit too much of his savings to an illiquid project, like producing a new truck. So without a mechanism for managing risk, the project may die. Thus, *liquidity, risk pooling, and diversification* will help him start his innovative project.

Moreover, Mr. X will require outside funding if he has insufficient savings to initiate his truck project. There are problems, however, in mobilizing savings for X’s truck company. First, it is very costly and time consuming to collect savings from individual savers. X may not have the time, connections, and information to collect savings from everyone in his town. Financial institutions, however, can mobilize savings more cheaply than X due to economies of scale, economies of scope and experience. Thus, X may seek the help of a financial intermediary to *mobilize savings* for his new truck plant.

There are however two additional problems that may keep savings from flowing to X’s project. To fund the truck plant, the financial intermediaries require information about the truck design, X’s ability to implement the design,
and whether there is sufficient demand for better quarry trucks. The financial system, thus, must be able to acquire reliable information about X's idea before funding the truck plant. Furthermore if potential investors feel that X may steal the funds, or run the plant poorly, or misrepresent profits, they will not provide funding. To finance X's idea, outside creditors must have confidence that X will run the truck plant well. Thus for X to receive funding, the financial system must monitor managers and exert corporate control.\textsuperscript{5}

Greenwood and Jovanovic (1990) assumes that there is a fixed cost to join financial intermediaries, and with economic growth the importance of this fixed cost reduces as more people join. They contend that financial intermediaries can invest more productively than individuals because of their better ability to identify investment opportunities. So the formation of financial intermediaries accelerates economic growth by enhancing the allocation of capital as a higher rate of return is earned on capital and economic growth, in turn provides the means for the formation of growth-promoting financial intermediaries, which provides the means to implement costly financial structures. In this way, financial development and economic development reinforce one another.

\textsuperscript{5} Everything that is being said in this example will also hold, if “savings” is replaced by “funding.”
1.4: KEYNESIAN PERSPECTIVE

Macroeconomic analysis in the Keynesian tradition starts with the investment decision of firms, which are made on the basis of their profit expectations in an uncertain world. These profit expectations are the main determinants of investment. Expected profits in comparison to the interest rate, which represents the cost of borrowing determine whether a certain investment project will be financed or not. However, the interest rate does not possess the fundamental power of efficiently coordinating decisions to invest and save for the whole economy as in the mainstream Macroeconomic theory. The interest rate is determined by monetary factors, liquidity preference of the economic agents and/or monetary policy, and not by the real economic variables. Some economists like Kaldor and Moore stress that the interest rate is an exogenous variable set by the central bank.

Investment spending determined by profit expectations initiates economic growth as it raises the level of total income and by that also the level of savings. The rate of interest is macro economically important, as it is the basic variable of the traditional Keynesian monetary policy transmission mechanism. Expansionary monetary policy will lower the interest rate (except in the situation of liquidity trap), which in turn is supposed to stimulate real investment. And this generates a multiplier effect on income.

Regarding financing of additional investment, the classical framework stressed that apart from temporary distortions, the rate of interest is supposed to immediately adjust savings and investment. In the Keynesian tradition, the first important aspect of finance is that financial institutions contribute
positively to economic development as they meet the needs for financing
investment by the process of credit expansion.

Recently the finance process and, therefore monetary aspects of
economic production have again attracted attention from a more microeconomic
perspective. According to this perspective, there is a strong empirical support
for the significance of financial factors in the real behaviour of the economy.
The availability of finance influences the course of investment because many
investors face a finance constraint, which can only be relaxed by credit from
financial institutions (credit expansion).

Therefore the finance process also matters to the real economic activity
and cannot be neglected if investment in real capital and, consequently, the
growth process is supposed to be explained satisfactorily. As a result co-
evolution between the financial and the real sectors in the process of
investment and growth is stressed again by the rediscovery of the importance of
finance, as the real sector cannot grow independently from the financial sector.

However the development of financial activities is not necessarily
interpreted as a blessing in the Keynesian tradition. Nothing guarantees that
financial activities really enhance real productivity and they may even grow at
the cost of the real sector. This has been reiterated by Keynes, in a famous
passage in the Chapter 12 of The General Theory, where he observed: "...when
capital development of a country becomes the by product of the activities of a
casino, the job is likely to be ill done..." So according to the Keynesian tradition,
the economy is prone to volatility and speculative bubbles as profit expectations
become overly optimistic or pessimistic. There might be times when financial
activities increase instability or grow at the expense of the real activities as they
offer higher returns or are considered to be less risky. The overall impact of the financial activities on economic growth therefore remains ambivalent and depends on the particular circumstances.

The M-S hypothesis has attracted criticisms on several fronts. From an overall assessment of the recent works of some economists in the Keynesian tradition (mainly post Keynesians) the negative impact of the recent development of the financial sector on the real sector can be demonstrated. Their arguments are summarized as follows:

a. **The Crowding Out Hypothesis**

Van-Wijnbergen (1983) and Taylor (1983) attacked the M-S hypothesis as being incomplete. Van-Wijnbergen (1983) argued that the result and, hence, the conclusion obtained by the McKinnon and Shaw depend crucially on a hidden assumption on asset market structure, namely, that portfolio shift into bank deposits is coming out of an unproductive asset structure rather than from loans extended on the market. Using arguments based on fractional reserve banking practices, Van-Wijnberger (1983) and Taylor (1983) further noted that if informal market assets shift into bank deposits as a result of higher interest rates, total supply of credit to the business sector would decline as banks provide only partial intermediation. Prudential and other statutory reserve requirements would lead to an increase in reserves and consequently, a reduction of effective supply of funds as funds were moved out of informal financial markets that provide one for one intermediation.
 Beneficiaries of credit in the informal market would thus be crowded out of the credit market as their source of credit dried up. Moreover, informal market rates would rise alongside the liberalized interest rates, implying higher prices for working capital. This would further crowd out marginal beneficiaries of credit out of investment opportunities.

A further strand in the debate is based on the assertion (Collier and Mayer, 1989) that there is no guarantee that financial reform based on a market-based system would attain a significant level of competition and efficiency of the banking system in the domestic economy. Competition would not be possible if, the banking sector is dominated by a few banks, so that the risk of inefficiency associated with direct credit controls or government intervention in the banking sector before the reform is replaced by the inefficiency of an oligopolistic banking structure. Collier and Mayer argued that in many African countries where there are a small number of commercial banks controlling a large proportion of financial deposits in the banking sector, the pricing by one bank may have a significant impact on other smaller banks in the banking sector. In this instance, banks may prefer to hold proportionately large assets in liquid form rather than holding a diversified portfolio.

b. **Supply of credit is treated as exogenously determined**

A second major criticism of the financial liberalisation argument is that the model treats banks simply as savings depositories, with the presumption that the supply of loans from the banking system depends on deposits held by the banks, and if deposits increase, loans will automatically increase. In short,
the supply of credit is treated as exogenously determined. However, if banks have the power to create credit (which they do), backed by a central bank acting as lender of last resort, the supply of loans will depend on the demand for loans, not on the supply of deposits. The supply of loans becomes endogenous. Within this framework, what is important is not so much incentives for saving, but incentives for investment, which may require lower interest rates. Warman and Thirlwall (1994) found that for Mexico over the period 1960-90, financial saving responded positively to the rate of interest, and this led to an increase in the supply of credit from the banking system to the private sector. However, while the increased supply of credit affects investment positively, there is a strong negative effect of interest rates on the level of investment, holding the supply of credit constant, and the net effect of higher real interest rates on investment is adverse.

c. **Adverse effect on demand in an economy**

Another aspect of the post-Keynesian critique of the financial liberalisation model is that it ignores the adverse effect that high real interest rates can have on costs and the level of demand in an economy, which may lead to stagflation (a combination of cost inflation and rising unemployment). High interest rates not only discourage investment, but may also lead to currency overvaluation by attracting capital from overseas, which leads to a fall in exports, and also increases the cost of servicing government debt, which leads to cuts in government expenditure. This has occurred in Africa (African Development Report, 1994).
d. **Credit rationing not necessarily be eliminated**

It does not follow that credit rationing will necessarily be eliminated and resources allocated more 'efficiently' if interest rates are not controlled and are allowed to reach their market clearing level. As Stiglitz and Weiss (1981) showed that banks suffer from the problem of adverse selection because of asymmetric information on the part of borrowers and lenders. Borrowers know more than lenders about the risks involved in a loan transaction. A rational profit-maximising bank may therefore be expected to practice credit rationing to reduce risk, and not simply lend to those projects that seem to offer the highest return but with more risk attached.

e. **The Financial Instability Hypothesis**

The financial instability hypothesis by Minsky (1975) demonstrates the disproportionate development between real profit opportunities and debt commitments. It states that over a period of good times, the financial structures of a dynamic capitalist economy endogenously evolve from being robust to being fragile, and that once there is a sufficient mix of financially fragile institutions, the economy becomes susceptible to debt deflations.

Minsky maintains that government intervention alone may not be enough to stabilize the economy and the existence of the Central Bank as the lender of the last resort is also required. If a big firm or bank defaults on its debt, it can also bring down others in the economy due to the interlocking nature of their balance sheets. By lending to them, especially to the big financial institutions, the Central Bank prevents big financial institutions from
defaulting. One problem with the presence of the lender of last resort is that if banks know that the Central Bank will always step in if the borrower defaults, banks will have nothing to worry about. Risky behavior is rewarded. Therefore, there is a need to supervise the private banks to decrease the number of bad loans they approve. Minsky notes that profit-seeking firms have incentives to leverage and borrow more against equity as long as the economy appears to be stable, therefore, "stability is destabilizing." People take on more and more risk.

In an effort to stabilize the economy, policies are implemented. If policies are successful, the economy booms. Expectations about the expected future returns become increasingly optimistic and riskier behavior is awarded. Credits are increasingly used for speculative and compensatory spending and not for financing real investment projects. The financial structure becomes increasingly fragile and the economy moves towards a downturn.

All these hypotheses tend to establish a negative link between financial sector development and real economic growth. However this negative link is not supposed to hold under all economic conditions, but they describe periods in economic development when the financial sector is supposed to grow at the cost of the real sector. Under normal economic conditions, however, the positive impact of financial activities is not denied.

Nevertheless, it is quite difficult to suggest that the financial system merely responds to industrialization and economic activity, or that financial development is an inconsequential addendum to the process of economic growth. It thus seems that until we have an understanding of the evolution and functioning of the financial system, it is difficult to understand its link to long-
term economic growth. Moreover, it must also be borne in mind that the financial system is also shaped by non-financial developments. For example, changes in telecommunications, computers, non-financial sector policies, institutions and economic growth itself, influence the quality of financial services and the structure of the financial system, as has been suggested by various economists. Merton (1992) believes that technological improvements affect transaction costs and financial arrangements. Bencivenga and B. Smith (1992) suggest that monetary and fiscal policies affect the taxation of financial intermediaries and the provision of financial services, while some economists like Haber (1996) claim that political changes and national institutions critically influence financial development. Furthermore, Greenwood and Jovanovic (1990) suggest that economic growth alters the willingness of savers and investors to pay the costs associated with participating in the financial system.

Recently researchers have also found a positive, first-order relationship between financial development and economic growth, which has been addressed in some of the recent works of King and Levine (1993a, 1993b) which has been mentioned earlier. Rajan and Zingales (1998) suggest that financial development has a substantial supportive influence on the rate of economic growth and this works, at least partly, by reducing the cost of external finance to financially dependent firms. Levine and Zervos (1998) finds a strong, positive link between financial development and economic growth even after controlling for many factors associated with growth, stock market liquidity and banking development. So these recent works have maintained that the development of financial markets and institutions is a critical and inextricable part of the growth process.
1.5: STOCK MARKET DEVELOPMENT AND ECONOMIC GROWTH

Now we will look specifically at the link between the stock market development and long run economic growth. McKinnon (1973) and Shaw (1973) have examined the relationship between financial development and economic growth without giving much analytical perspective to capital market development. In an equity market, an asset can be sold or purchased at any moment during the working hours of the stock market. Thus, equity markets make investment more attractive. Such investments as it is argued by the mainstream economists help in the capital formation and growth of firms. Cho (1986) introduced the role of the stock market to the M-S framework by applying the theory of credit rationing which was proposed by Stiglitz and Weiss (1981). According to this theory banks inherently suffer from the problem of imperfect information in the credit market and cannot achieve efficient capital allocation. On the other hand, equity finance is free from adverse selection and moral hazard effects. Thus, substantial development of an equity market is a necessary condition for complete financial liberalization. Levine (1991) and Bencivenga, Smith and Starr (1996) confirm that stock markets can boost economic activity through the creation of liquidity. Risk diversification, through internationally integrated stock markets, is another vehicle through which stock markets can raise resources and affect growth (Obstfeld, 1995).

However, there are certain difficulties with Cho’s theoretical formulation. Their theory overlooks the fact that even with well-functioning stock markets there is an agency problem with respect to management controlled large corporations as well as the problems arising from asymmetric information between corporate management and investors about project returns (Singh,
1997). In these circumstances, Myers and Majluf (1984) showed that rational managers will adopt the 'pecking order' pattern of finance – preferring retained earnings to debt and only as a last resort tap the equity market to raise finance for their investment needs. So in a situation where credit is rationed and the managers have insufficient retained profits to finance worthwhile projects, such projects will not be undertaken.

Demirguc-Kunt and Levine (1996) examine the interaction between stock market and financial development and find that across countries, the level of stock market development is positively correlated with the development of financial intermediaries. Demirguc-Kunt and Maksimovic (1996) also investigate empirically the effect of stock market development on the financing choice of firms and find that firms in countries with an underdeveloped stock market first increase their debt-equity ratios as their stock markets develop and that the debt and equity finance are complementary. The first comprehensive study on the relationship between stock market development and economic growth was made by the World Bank Research Group, namely, Levine and others.6 They investigate the compatibility of stock market development with financial intermediaries and economic growth. Their general conclusion is that stock market development is positively correlated with the development of financial intermediaries and long-term economic growth. Levine (1997) argues that stock markets provide a different bundle of financial functions from those provided by financial intermediaries.

But Keynes points out a central analytical weakness of the stock market while discussing this finance-industry relationship in his 'The General Theory'.

---

He points out that the stock market, no doubt, provides the individual investor with more or less ready liquidity. However, this liquidity also means that the investor need have no commitment to the long-term future of the firm.

According to Shapiro, if stock markets reflect fundamentals there should be a close relation of stock market valuation to expected future real activity. The fundamental value of a firm’s stock will equal the expected present value of the firm’s future payouts (dividends) if these expectations take all currently available information into account. And future payouts must ultimately reflect real economic activity as measured by industrial production or GDP. Consequently, stock prices should lead measures of real activity as stock prices are built on expectations of these activities. And the absence of any correlation between stock returns and future production growth rates would suggest deviations from fundamental values or the existence of a large unobservable fundamental factor.

In the Indian context, Shah and Thomas (1997) can be considered as representative of a view supporting the role of stock market development for economic growth. According to them the stock market in India is more efficient than the banking system on account of the enabling government policies and that stock market development has a key role to play in the reforms of the banking system by generating competition for funds mobilization and allocation. Hence, an efficient capital market would contribute to long-term growth.

As far as studies regarding the case of India are concerned, Agarwal (1996) investigates the relationships between stock markets and financial intermediaries, whether they are complementary or substitutes for one another. He also studies the ties between stock market development and financing
behaviour of the private corporate sector. Finally, he analyses the relationship between stock market development and economic growth.

Agarwal's study supports the Levine and Zervos's argument that well-developed stock markets may be able to offer financial services of a different kind compared to those of the banking system and therefore provide an extra impetus to economic activity. Also, both the parameters of capital market development such as the size and liquidity are found to be statistically significant in explaining economic activity. Correlation analysis reveals that the banking sector and capital market development indicators are complementary and not substitutes for each other. The study also supports the views of Levine (1991) and Bencivenga, Smith and Starr (1996) that stock markets can boost economic activity through the creation of liquidity.

1.6: DEREGULATION AND FINANCIAL CRISSES

Despite the almost universal enthusiasm for the development of stock markets, it is important to be cautious about their role in economic development. This is mainly because of the arrival of frequent financial crises in the aftermath of financial liberalization, especially in the developing countries. Therefore it seems that a review of the literature on financial sector would be incomplete without looking at the vast literature devoted to deregulation and financial crises. The fear that financial liberalization was destined to breed crisis was first given wide currency by Diaz Alejandro (1985). Williamson and Mahar (1998) took up a panel of 34 countries, both developed and developing,
and showed that almost all the 34 economies experienced some form of systematic financial crisis between the beginning of the 1980s and July 1997, and several suffered new and severe crises later that year.

It is probably true that not all crises were the direct consequences of financial liberalization. In particular it seems likely that in a number of cases, banks had already a large share of non-performing loans at the time liberalization as a result of previous directed lending, and that liberalization simply exposed portfolio weakness that had been previously hidden. Nevertheless financial liberalization was at least a contributory factor in many cases. Certainly, Argentina (1980), Chile, Mexico (1994), Philippines, Thailand, Turkey and Venezuela are cases in point. The costs of these crises have run into billions of dollars.

Two recent studies evaluate the correlation between financial sector liberalization and banking crisis. Reinhart and Kaminsky (1996) use cross country estimations to detect causality between banking crises, balance of payment crises, and financial liberalization. Their results indicate that, although banking crises tend to precipitate balance of payments crises, the reverse is not always true. Importantly, Reinhart and Kaminsky find that financial sector liberalization is positively and significantly related to subsequent banking crisis. Demirgüç-Kunt and Detragiache (1997), in a study that covers 65 countries from 1980 to 1994, use a number of macroeconomic and institutional variables to determine the probability of banking crisis. They use three separate variables, real interest rate, share of credit to private sector and growth in credit. Although all three variables are positively and significantly related to the probability of a banking crisis occurring, the study neither lays
out a macroeconomic model capturing the interaction of these and other macroeconomic variables, nor attempts to incorporate the extent of prudential regulation and supervision in the financial sector into the analysis. In addition, these three variables are influenced by a host of other factors, other than financial liberalization. In their revised paper Demirgüç-Kunt and Detragiache added a dummy variable to capture the impact of financial liberalization, the coefficient of which is positive and significant, again indicating that liberalization increases the probability of a banking crisis.

Honohan (1997) alleges that the causes of banking crises span a wide spectrum. He divides banking crises into three syndromes:

- Macroeconomic epidemics
- Microeconomic deficiencies
- Endemic crises in a government protected system.

The latter two categories describe the underdeveloped and government managed financial system, typically found in a financially repressed economy. However, Honohan does not blame either repression or liberalization for the spate of banking crises. He blames the change of regime, which altered the nature, scale, frequency and correlation pattern of shocks to the economic and financial system, increasing the riskiness of traditional behaviour, or introducing new and inexperienced players for the financial crises. Looking back on a number of developing country cases, Honohan defines the types of regime changes as financial repression, financial liberalization, structural transformation, political developments, privatization, and technological innovation and globalization in finance. Of these, financial liberalization,
structural transformation, privatization and technological innovation and globalization often result from the financial reform process.

Gavin and Hausmann (1990) see the origin of banking crisis as residing in a credit boom that allows almost any borrower to service his debt by borrowing from another source. This deprives the lender from the information that would have helped him to differentiate between sound and risky borrowers. In a macroeconomic crisis, continued debt servicing becomes problematic, and many borrowers default on their loans. This has been seen following the financial liberalization in the Chile and Mexico. In Chile during the late 1970s and early 1980s, newly privatized banks expanded lending, which went bad after the onset of macroeconomic turbulence, prompting a crisis. After liberalization, both Argentina and Turkey experienced widespread distress borrowing. In both countries, the corporate sector experienced a decline in earnings during the early stages of liberalization. The liberalization of interest rates created a vicious circle of unsustainably high interest rates at banks to cover growing numbers of nonperforming loans and a further distress borrowing by the corporate sector.

Caprio, Wilson and Sanders (1997) present evidence that a rapid expansion of lending to consumers was a leading factor behind the collapse of banks in Mexico in 1994. A boom in lending for consumption was partly due to the pent up demand from previous financial repression and partly due to the fact that exporters had grown accustomed to other methods of financing during the years of nationalization. They also cite inadequate supervision, lack of proper incentives and existence of broad deposit insurance factors that limited the need for bankers to diversify risks in newly liberalized environment. The
recent Thai crisis is also attributed to rapidly expanding and concentrated lending in the real estate sector and consumer durables sector under conditions of weak regulation and limited transparency.

One finds that financial sector liberalization has occurred in a wide range of countries since 1973. Almost all developing countries have now at least partially liberalized their financial sector. The process has varied greatly; both in terms of speed and sequencing. The evidence suggests that financial liberalization has yielded positive results in terms of greater financial depth but it has not brought the boost in the savings as was predicted by McKinnon and Shaw. It also suggests that a positive, but modest, real interest rate would be most conducive to secure a high rate of saving. The danger that liberalization will lead to such a crisis is the most important drawback in the entire process, the other drawback being a loss of monetary control.

Notwithstanding, Keynes' skepticism about the virtues of the stock market in relation to a country's investment needs, there has been a tremendous expansion of the stock markets in the developing countries during the 1980s and 1990s. The closest example has been the East Asian economies, which were considered to be "miracle economies". They had experienced tremendous growth over a very short span of time, as the state played a crucial role in raising investment rates as well as coordinating the export thrust, whereby production for the world market played a crucial role. An important instrument implemented by the state in these economies was monetary and credit policy. According to the evidence suggested by Ghosh and Chandrasekhar (2001) it seems that the interest rate differentials and "bank-based monitoring" of corporations, involving the channelising of corporate
finance through medium of a largely regulated banking system was instrumental in realizing the export thrust.\textsuperscript{7}

Most observers including those in India genuinely felt that the success of these countries deserved to be emulated. But when the East Asian crisis broke out, it took everybody by surprise, as it was never anticipated. So in order to prevent such crisis to occur in the future, it is hugely important to know what went wrong with the process of financial development in East Asia, as India was following the same pattern of development. In fact, the Indian economy was on the verge of transforming into a regime of full CAC. In this respect, the Government of India (GoI) had also appointed a committee under the Chairmanship of S. S. Tarapore to study a gradual move to full CAC. The committee argued that though capital controls may have served a useful role in the early years of India's development strategy, their usefulness today was doubtful. Thus the committee recommended a gradual shift to full CAC by the year 2000. However, the onset of the East Asian crisis indefinitely postponed India's march towards CAC. But with the RBI gradually relaxing restrictions, we are again confronted with the issue – whether CAC is beneficial to India?

One of the major reasons for the occurrence of the crisis was that the financial sector in the East Asian economies was very weak. So once the economy is opened up to capital flows to integrate better with the world economy, the economy gets swamped by a large inflow of funds, which may not be intermediated in the best way. But this is quite surprising as the IMF was applauding the macroeconomic stability of the East Asian economies on the eve

\textsuperscript{7} This is often contrasted with "market-based monitoring" which relies on the stock market as the principle vehicle for translating household savings into corporate investment.
of the crisis. Inflows are likely to be driven by the incentive of earning more capital gains and this can lead to serious overshooting and misallocation, which sets the stage for a subsequent collapse in the boom.

Fortunately, India escaped the crisis. This was mainly due to the fact that we were not vulnerable to short-term outflows, as compared to the East Asian economies that were badly hit by the crisis. However, we did have a potential vulnerability on portfolio flows. But since we did not have CAC, domestic capital could not have flowed out as early as it did in Indonesia, in anticipation of a collapse.

In the light of the above views, our study would basically be confined to find out whether the financial development that has taken place in India, did have any impact on the stock market valuation? Further we would also investigate whether any increase in stock market valuation as it is expected to, has any perceptible impact on real investment and economic growth, as suggested by Tobin's q theory of investment. The period of our analysis is from 1990-91 to 2004-05. We will deal with these issues in Part II of our study. But before moving on to it, we need to look at the Tobin's q theory of investment and the prior research that has been undertaken in this regard. In the next chapter we are going to present an overview of the measure of Tobin's q, its usefulness and drawbacks and also present a review of the empirical research Tobin's q theory of investment.