

CHAPTER – I

Introduction

1.1 Prologue

One of the most prevalent themes in contemporary political economy involves the relationship between financial liberalization and economic growth. The late twentieth century has witnessed the transformation of numerous economies around the world from centrally planned to market systems. However, the discussion on liberalizing financial markets more or less started with the seminal publications of McKinnon (1973) and Shaw (1973). The theory of financial liberalization in its simplest form suggests abolition of institutional nominal interest rates held below their equilibrium level in order to raise savings, investments and growth. The concept of financial liberalization has become a new orthodoxy among the major international institutions that offer policy guidelines for developing countries that hastened the process of deregulation of financial system in many less developed countries (LDC). Both McKinnon-Shaw (1973) argued in favor of liberalizing financial markets on the grounds that this would contribute to more efficient investment that, in turn, would lead to higher economic growth rates.

Basically, the following arguments have been made in support of the positive relationship between financial liberalization, financial development and economic growth. First, it is claimed that the introduction of market principles and competition in financial markets increases interest rates on deposits, which leads to higher saving rates. This, in turn, increases the amount of resources available for investment (McKinnon 1973). Second, liberalizing the capital account, it is argued, would permit financial resources to flow from capital-abundant countries, where expected returns were low, to capital-scarce countries, where expected returns were high. The flow of resources into the liberalizing countries would reduce their cost of capital, increase investment, and raise output (McKinnon, 1991). Third, financial liberalization contributes to increased possibilities of risk diversification by financial institutions such as banks. This reduces the cost of capital and raises the quantum of investment and growth. Fourth, the liberalized markets not only stimulate the reduction in overhead costs, but offer new financial instruments and services to the market also. It encourages more savers to participate in the market that results in increased competition and efficiency of the market,

Stiglitz and Weiss (1981), Jaramillo, Schiantarelli and Weiss (1996), Hermes and Lensink (1998), Hellmann, Murdock and Stiglitz (1996, 1997, and 2000), Stiglitz (2000), Boot (2000), Bonfiglioli (2005) all these researchers refuting the claim of liberalists forcefully argued that financial liberalization in many cases has led to disappointing results and in some cases even to economic and financial crises. Just after Asian crisis, many voices were raised arguing that globalization had gone too far and had led to extremely erratic capital markets around the world (Kaminsky and Schmukler, 2001). Some extremists have gone so far so as to suggest that open capital markets may even be detrimental to economic development [See Bhagwati 1998, Rodrik 1998, Stiglitz 2002].

Thus, despite endless debate there is no definitive answer of the queries: Can financial liberalization help to grow a robust financial system? What is the nature of relationship, if any, exists between financial development and economic growth? It seems to be a parallel world where the researchers who support and those who oppose the present policy of liberalization have enough evidences to prove their cases.

Following early researchers, we also presume that healthy development of a nation's financial sector is quintessential for the growth of an economy (World Bank, 2002). Growing interest among macroeconomists to critically evaluate the role of the financial sector in promoting economic activity has produced a burgeoning literature.

However, the early architects of the financial liberalization McKinnon-Shaw (1973), assuming the presence of inactive capital markets in most of the developing countries, emphasized on the beneficial impact of liberalized financial system dominated by banking sector. But current experiences suggest that many emerging markets offering immense services for the growth of private corporate sector in many developing economy and its efficient functioning is gradually marginalizing role of bank in mobilization and allocation of societal resources (Roy, 2001). This finding is consistent with many empirical and theoretical assertions that emphasized virtues of competitive market and undermined role of banking sector in the societal development. Some studies even claim that banking development may actually arrest economic growth thus there is a need to shift attention on capital market to maximize use of investable resources [Ram, 1999; Khan and Senhadji, 2000; Levine, 2002; Zhang, 2003]. Some models emphasize that markets mitigate the inefficient monopoly power exercised by banks and stress that the competitive nature of markets encourages innovative, growth-enhancing activities as opposed to the excessively conservative approach taken by banks (Allen and Gale,

2000). Finding of some studies [such as Weinstein and Yafeh, 1998; Morck and Nakamura, 1999] suggest banks often collude with firm managers that violate basic principle of competitive system and causes inefficient allocation of resources. German experience also suggests that bankers often collude with firm managers [Edwards and Fischer, 1994 and Black and Moersch, 1998a]. The difficulty that new productive entrepreneurs face in obtaining finance from banks originate from characteristic of bank loans which is the fixed-fee contract, for which there are conflicting interests between lenders and borrowers. If the financial market is composed of only debt financing institutions, such as banks, the market also fails to achieve efficient allocation of capital because of shortcomings of debt finance in the presence of asymmetric information (Cho, 1986).

As equity finance is free from adverse selection and moral hazard effects, the new entrepreneurs will be able to mobilize finance from the equity markets. Therefore, Cho (1986) argued that the most efficient allocation of capital is achieved by liberalizing the financial market and letting the market allocate the capital. The development of equity markets is necessary to attain full efficiency of capital allocation. Later, McKinnon (1989) also incorporated this view in his theory and suggested that stock market development should have priority even over liberalized bank lending in the first several years of transition to a capitalist financial market where the preceding order has created a large bad debt problem for banks.

There is almost a unanimity among the academics (Gabel, 1999, etc.) that financial liberalisation encourages the formation of equity markets where they did not exist previously and helps in their deepening and widening where they predated the reforms. The expansion of equity markets of many Asian countries after liberalisation is truly impressive (Clemente, 1994). All stock market indicators such as market capitalization ratio, gross annual turnover as a share of GDP, number of listed companies, etc. the variables that financial economists generally favour to measure the growth and development of the market started behaving comparatively well with the paradigm shift (See Table 1. 1).

Table 1.1: Select Stock Market Development Indicators

Income-wise Country Groups	Market Capitalisation Ratio		Turnover Ratio		No. of Listed Companies		FDI (% of GDP)		Domestic Credit to Private Sector (% of GDP)	
	1990	2005	1990	2005	1990	2005	1990	2005	1990	2005
High Income	51.6	112.9	59.5	114.0	17078	28001	1.0	2.1	115.4	156.3
Middle Income	20.00	49.5	78.3	41.6	4900	14117	0.7	3.1	43.1	58.3
Low and Middle Income	18.8	50.1	70.7	53.7	8346	20873	0.6	2.9	39.2	54.9
Low Income	9.8	54.2	53.8	107.6	3446	6756	0.3	1.5	21.3	33.9
India	12.2	58.1	65.9	93.6	2435	4763	0.1	0.8	25.2	40.8
World	48.00	98.3	57.2	53.7	25424	48874	0.9	2.2	104.3	133.8

Source: World Development Indicators, 2000 and 2007, World Bank.

Even after such sprawling development of the stock markets, debate still continues — can financial system support in economic growth? How different channels such as bank and stock market support economic development?

1.2 Review of Literature

From early 1990s growing interest among development economists has produced a plethora of scholarly and seminal researches, which extol the virtues of the proposed link between financial sector development and economic growth. Such recent revival of interest stems from the insights of endogenous growth models, in which growth is self-sustaining without exogenous technical progress and is influenced by various initial attributes of the economy. A select of all these studies is outlined below.

Since Bagehot (1873), Schumpeter (1912), to the recent revival of the interest, a large body of empirical knowledge [Spears, 1991; Thornton, 1996; Demetriades and Hussein, 1996] accumulated whether the finance-growth relationship is a general consensus or an inconsequential sideshow. An impressive array of econometric techniques has been used to examine critically the robustness of the relationship between financial sector development and economic growth. Evidence shows mixed results while relating financial deepening and growth. The direction of causality varies across countries and depends on the definition used to measure financial development. Evidences for finance-led growth is mixed across countries [Rousseau and Wachtel, 1998; Van Nieuwerburgh, 1998; and Luintel and Khan, 1999].

In addition, earlier studies, which showed the separate effect of stock markets on economic development, in most of the cases considered one or two important variables of the stock markets and tried to link it with the economic growth. Most of the studies [for example, Atje and Jovannovic, 1993; Pagano, 1993; Bencivenga, Smith, and Starr,

1995; Demirguc-Kunt and Maksimovic, 1996; Jain, 2002; Frost, *et al.* 2002; Eleswarapu and Venkatraman, 2003; Adjasi and Biekpe, 2004; and Dey, 2005] have argued that market size and liquidity have a great impact on the economic development. For example, the initial level of stock market development and the initial level of banking development are positively and significantly correlated with future rates of economic growth, capital accumulation, and productivity growth. These results are consistent with the view that stock market liquidity facilitates long-run growth [Levine, 1991; Holmstrom and Tirole, 1993; Levine and Zervos, 1998].

In terms of economic significance, the size of the stock markets is important for the assumption that market size is positively correlated with the ability to mobilize capital and diversify risk. On the other hand, as far as the liquidity is concerned, if the financial system does not augment the liquidity of long-term investments, less investment is likely to occur in the high-return and long-term projects. Thus, with liquid stock markets, equity holders can readily trade their shares, while firms have a permanent access to the capital. Therefore, Levine (1997) suggests that by facilitating trade, stock market reduces the liquidity risk.

However, all these results do not suggest a direct and monotonic expansion of the market size in the financial system. In reality, the expansion of equity markets always appears to be preceded and accompanied by the general expansion of the overall financial system.

Apart from researching the stock market size and liquidity, economists [such as, Korajczyk, 1996; Bekaert, Harvey and Lundblad, 2003, 2005] spent prodigious time to search the link between integrated and/or segmented markets with long-run growth. Open economies with deeply integrated financial markets can benefit from cross-border capital flows and from larger flows of financial resources pouring into the market. As theory suggests, the international financial integration by bringing about a greater degree of portfolio and risk diversification, may boost the propensity to save and invest [Saint-Paul, 1992; Devereux and Smith, 1994; Obstfeld, 1994] and foster economic growth.

Studies [Allen and Gale, 2000; Diamond, 1984; Boyd and Prescott, 1986] also show the positive relation between banking development and stock market liquidity with that of the economic growth.

In comprehensive studies (taking into account both bank and stock market), Demirguc-Kunt (1994) Levine and Zervos (1996, 1998), Rousseau and Wachtel (2000) and Beck and Levine (2002), show that stock market development is strongly correlated

with growth rates of real GDP per capita. More importantly, they find that stock market liquidity and banking development both predict the future growth rate of the economy when they both enter the growth regression. In time series studies of industrialized countries over the past century, Wachtel and Rousseau (1995) and Rousseau and Wachtel (1998) present evidence that the dominant causal link between equity market and economic development runs from the intensity of intermediary activity to economic performance. Henry (2000a, 2000b) shows that liberalization leads to higher stock prices and investment booms.

The empirical studies [such as, Arestis, Demetriades and Luintel (2001), and Rousseau and Sylla (2005), among others] attempt to establish causality by undertaking Granger-causality tests between stock market and/or bank and economic growth. However, findings [Caporale, Howells, and Soliman, 2004; Gursoy and Muslumov, 2004; Dritsaki and Dritsaki-Bargiota, 2005] suggest that a well-developed stock market can foster economic development by fuelling the engine of growth through faster capital accumulation, and by tuning it through better resource allocation. The causality patterns also varied across countries.

There are also alternate views about the role stock markets play in economic growth. Apart from the view that stock markets may be having no real effect on growth, there are theoretical constructs that show that stock market development may actually hurt economic growth. For instance, Stiglitz (1985, 1994), Bhide (1993), Singh (1997), Naughton (2000) and Zhu, Ash, and Pollin (2004) note that stock markets can actually impair economic growth. They argue that due to their liquidity, stock markets may hurt growth since savings rates may reduce due to externalities in capital accumulation. Diffuse ownership may also negatively affect corporate governance and invariably the performance of listed firms, thus impeding the growth of stock markets in most developing countries because of the speculative pressure that may be generated due to rapid growth of stock markets (Shleifer and Vishny, 1986). An undesirable implication of these types of pressures is that economies may be forced to bear a greater degree of 'ambient risk' with financial liberalization than without it (Gabel, 1995). This may reduce the total volume of real-sector investment while exerting upward pressures on interest rates in view of the higher risk (Frederer, 1993). The findings of the study by Filer, Hanousek and Campos (2000) suggest that, while a developed equity market may play several roles in a modern economy, none of these appear to be essential for economic growth.

The development of stock market is influenced directly and indirectly by various factors such as the legal and institutional framework. The direct effect occurs because better legal systems and institutions (i) strengthen property rights, and corporate governance [La Porta *et al.* 1997, 1998] (ii) facilitate the use of external financing to growth [Demirguc-Kunt and Maksimovic, 1998] (iii) government reliability. Thus, broadening the appeal and confidence in equity investment leads to highly valued equities and larger stock markets. The indirect effect occurs because better legal systems and institutions also spur economic growth and improve market fundamentals. Better investor protection induces companies to issue more equity and thereby leads to a broader stock market that finally leads to economic development [Pagano and Volpin, 2005]. Lombardo and Pagano (2006) show a positive cross-country correlation between the quality of legal systems and the expected return on equity. Dyck and Zingales (2002) show that insiders in French civil law countries possess systematically higher private benefits of control than those in countries of other legal origins, and Leuz *et al.* (2003) find that companies in Anglo-American countries exhibit less earnings management than their Continental-European counterparts. Bhattacharya and Daouk (2002) find that the enforcement of insider trading laws reduces a country's cost of equity.

Studies so far have mentioned are from international arena. In Indian context, however, measurement of financial sector development and to relate it with growth escaped attention of researchers. Mostly, studies [such as Pathe and Karnik, 2001; Ray, 2007, forthcoming] among others] examine the impact of macro variables on the stock market development. In India, however, a study by Samal (1997) is worth mentioning. The study that covers a period of 1991-92 to 1995-96, an aggregate index called *SINDEX* has been constructed for the purpose of measuring the stock market development that too considering only simple average of market capitalisation ratio, traded- value ratio and turnover ratio. An extension of this study was conducted by Biswas (2005) for a period of 1991-92 to 2003-04. But these studies neither considered the two most important stock market variables such as, market volatility and integration to measure growth of the market, nor the studies attempted to relate with economic growth objectively. The present study aims to fill in this gap.

1.3 Scope of the Study

Indeed, the finance-growth literature is at the crossroads. Endogenous growth economists take ‘it for granted’ that a robust, market-oriented financial sector contributes to support economic growth. Such models of development virtually emphasize the role of financial system in the growth process ignoring many other macroeconomic variables that traditional theorists include in their theories of development. Although finance-growth nexus is a part of ‘liberal consensus’, still there exist some detractors. Most importantly, some researchers are less enthusiastic and express their strong reservation about so-called ‘liberal consensus’. The traditional growth theorists cautiously argue that role of finance is thoroughly ‘exaggerated’ due to lack of robustness of methodology used by Neo-classical theorists to prove the merit of their argument.

In view of these conflicting assertions, the present study aims to answer the following research questions:

- (a) What role financial systems truly play in economic growth?
- (b) How the pattern of development of a financial system changed after regime shift?
- (c) If finance can effectively influence growth – is it bank- or market-based system or a combination of this two can offer maximum benefit to the society?

These are the issues this study explores. Answer of the above questions will help us for a better understanding about the impact of stock market development on: capital accumulation and allocation, supply of external fund, cost of capital and finally its role as “guardian of efficiency”.

1.4 Plan of the Thesis

Apart from the current one, the rest of the study have been organised as follows:

- Introduction of sample countries with emphasis on state of macroeconomic stability, policies initiated to invigorate capital markets, level of institutional development have been briefly discussed in Chapter II;
- Based on a conglomerate indexes, an attempt will be made in Chapter III to measure the relative degree of stock markets development of the sample countries;

- In Chapter IV, an endeavour will be made to study objectively – is it market-based or institution-based financial system that can accelerate growth and efficiency of the economy; and
- Finally, Chapter V explores the policy prescriptions and further area (s) of research.

1.5 Research Methodology, Variables, Time Period and Data Sources

In this research, we have applied various statistical and econometrical tests such as Principal component analysis, Linear Regression Analysis, and Granger causality test. A detailed discussion will be provided in the relevant chapter that follows.

To measure the pattern of development of the financial system we consider the following variables for stock market (a) market size (b) market liquidity (c) volatility, (d) market integration (e) institutional and legal indicators and for banking sector we include the most widely used variables i.e. bank credit to private sector as a per cent of GDP.

Considering above variables we attempted to measure the level of financial sector development and its relationship with economic growth for twenty-two sample countries (See Table 1.2) for a time period 1981 to 2005. However, in some occasion we have to change the time period depending upon availability of relevant information.

Table 1.2: Specification of Sample Countries

Region-wise classification	Sample Countries	Stock Market Liberalisation	Enforcement of insider trading laws	Introduction of electronic trading system	Institutional Reform	Privatisation	Income wise classification
G-7 Markets	U.S.A	Before Sample	Before Sample	No Reform	No Reform	N.A	High Income: OECD
	U.K	Before Sample	1981	No Reform	No Reform	1981	High Income: OECD
	France	Before Sample	1975	1986	No Reform	1986	High Income: OECD
	Germany	Before Sample	1995	No Reform	No Reform	1988	High Income: OECD
East Asia and Asia-Pacific Markets	Hong Kong	Before Sample	1994	1986	No Reform	N.A	High Income: non-OECD
	Singapore	Before Sample	1978	1989	No Reform	N.A	High Income: non-OECD
	Japan	1983	1990	1982	No Reform	N.A	High Income: OECD
	Malaysia	1988	1996	1992	No Reform	1989	Upper middle income
	Indonesia	1989	1996	1995	1985	1991	Lower middle income
	Philippines	1991	No Reform	1993	1994	1991	Upper middle income
	Thailand	1987	1993	1991	No Reform	1993	Lower middle income
	Korea	1992	1988	1988	1998	N.A	High Income: OECD
South Asian Markets	Australia	Before Sample	1996	1987	No Reform	1991	High Income: OECD
	India	1992	1998	1995	No Reform	1991	Low income
	Bangladesh	1991	1998	1998	1987	No Reform	Low income
	Sri Lanka	1991	1996	1997	1990	1990	Lower middle income
	Pakistan	1991	No Reform	1997	No Reform	1991	Lower middle income
Latin American Markets	Argentina	1989	1995	No Reform	1991	1990	Upper middle income
	Brazil	1991	1978	No Reform	1999	1991	Lower middle income
	Mexico	1989	No Reform	1996	1991	1985	Upper middle income
	Chile	1992	1996	No Reform	1976	1985	Upper middle income
African Markets	South Africa	1996	No Reform	1996	1996	1997	Upper middle income

Notes: "Before sample" means that the country implemented the reform before the start of our sample period (1988). World Bank Country classification is followed.

Source: Torre, Gozzi and Schumkler (2007), World Bank Policy Research Working Paper 4184, April.

As Asia is our main focus of attention, the countries belonging to the region dominate the sample, though some very active and developed markets of other continents have been considered for comparative analysis.

All data for the sample markets for the period from 1981 to 2005 (See Table 1.3) has been collected from the S & P's Emerging Stock Markets Factbooks various issues, World Federation of Exchanges web site, database of International Financial

Corporation's Statistics, Asian Development Bank, Asian Development Outlook and Official web sites of each country.

Table 1.3: Data Availability

Country	D e s c r i p t o r s							
	Market Capitalisation	Value-Traded	Share Price Index (monthly)	Bank Credit to Private Sector (% of GDP)	Institutional Indicators	T-Bill Rate	Govt. Bond Yield Rate	Bank Rate/Discount Rate
Argentina	1988-2005	1981-2005	1988-2005	1980-2005	1996-2005	N.A	N.A	N.A
Australia	1988-2005	1981-2005	1988-2005	1980-2005 ^a	1996-2005	1988-2001	1988-2005	
Bangladesh	1988-2005	1981-2005	1988-2005	1980-2005	1996-2005			1988-2005
Brazil	1988-2005	1981-2005	1988-2005	1980-2005 ^b	1996-2005	1995-2005		
Chile	1988-2005	1981-2005	1988-2005	1980-2005	1996-2005			1993-2005
France	1988-2005	1981-2005	1988-2005	1980-2005	1996-2005	1988-2003	1988-2005	
Germany	1988-2005	1981-2005	1988-2005	1980-2005	1996-2005	1988-2005		
Hong Kong	1992-2005	1992-2005	1992-2005	1980-2005 ^c	1996-2005	1992-2005		
India	1988-2005	1981-2005	1988-2005	1980-2005	1996-2005	1988-2005		
Indonesia	1988-2005	1981-2005	1988-2005	1980-2005	1996-2005			1990-2005
Japan	1988-2005	1981-2005	1988-2005	1980-2005	1996-2005		1988-2005	
Korea	1988-2005	1981-2005	1988-2005	1980-2005	1996-2005		1988-2005	
Malaysia	1988-2005	1981-2005	1988-2005	1980-2005 ^d	1996-2005	1988-2005		
Mexico	1988-2005	1981-2005	1988-2005	1980-2005	1996-2005	1988-2005		
Pakistan	1988-2005	1981-2005	1988-2005	1980-2005	1996-2005	1992-2005	1988-1999	
Philippines	1988-2005	1981-2005	1988-2005	1980-2005	1996-2005		1988-2005	
Singapore	1988-2005	1981-2005	1988-2005	1980-2005	1996-2005	1988-2005		
Sri Lanka	1988-2005	1981-2005	1988-2005	1980-2005	1996-2005	1988-2005		
South Africa	1988-2005	1981-2005	1988-2005	1980-2005 ^e	1996-2005	1988-2005		
Thailand	1988-2005	1981-2005	1988-2005	1980-2005	1996-2005		1988-2005	
UK	1988-2005	1981-2005	1988-2005	1980-2005	1996-2005	1988-2005		
USA	1988-2005	1981-2005	1988-2005	1980-2005	1996-2005	1988-2005		

Notes:

1. To Calculate Sharpe ratio monthly data of share price index has taken into consideration for all sample countries. The Sharpe ratio has been calculated on the basis of T-Bill rates. The govt. bond yield rate has been used as surrogate to the T-Bill rates when the later is not available for Japan, Australia (as T-bill rates are not available from 2002 onwards) and France (as T-Bill rate is not available from 2003 onwards). Under extreme circumstances, Bank Rates/Discount Rates are used to calculate Sharpe ratio for Bangladesh, Chile, and Indonesia (data permitting from 1990 onwards) due to non-availability of neither T-bill rates nor govt. bond yield rate. Unless otherwise mentioned, all data are on yearly. N.A represents not available.
 - (a) Sharpe ratio for the Argentina could not be calculated as none of the T-Bill rate, Govt. Bond Yield Rate and Bank Rates/Discount Rates is available.
 - (b) For Pakistan and Brazil, T-Bill rates are available only from 1992 and 1995 respectively. In the case of Sri Lanka T-bill rate of 1997 is not available and for Pakistan the same is not available for 1998 and 1999.
 - (c) For Hong Kong, data for market capitalisation, turnover and monthly share price index are available from 1992.
2. Data on Bank credit to Private sector (% of GDP) is not available for:
 - (a) Australia for 2002; (b) Brazil for 1986 and 1987; (c) Hong Kong from 1980 to 1989; (d) Malaysia for 1982, 1989 and 1991 and South Africa for 1991.

Sources: World Development Indicators various issues, IFC statistics, RBI publications, S & P's Emerging Stock Markets Factbooks various issues, and World Federation of Exchanges.

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