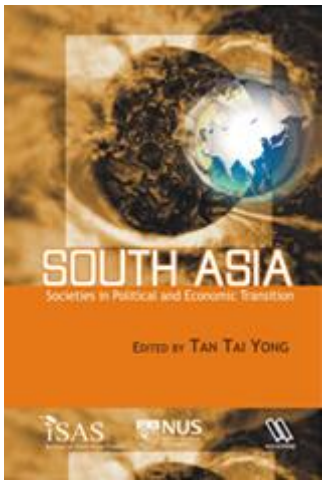
South Asia: Societies in Political and Economic Transition



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Financial Sector Reforms in South Asia: A Perspective

D M Nachane
&
M. Shahidul Islam

The financial sectors in the various economies of South Asia prior to the initiation of structural reforms in the 1990s constitute typical examples of what McKinnon (1973) and Shaw (1973) have dubbed as 'financial repression'. The financial repression thesis maintains that governmental restrictions on the financial sector, by reducing the quantum as well as the quality of investment, have a retarding effect on a country's economic growth prospects.

Financial liberalization is viewed as an integral component of overall liberalization, in the twin beliefs that (i) liberalization in the real sector cannot proceed satisfactorily in the absence of financial liberalization and (ii) financial liberalization is an 'enabling condition' of faster economic growth, as it increases competition, transfer of know-how, and transparency. The process of financial liberalization is usually viewed as encompassing four dimensions:

1. Financial Deregulation: This refers to (i) the dismantling of existing restrictions on the prices of various types of credit instruments (the so-called P- restrictions), (ii) the removal of quantitative and other restrictions (the so-called Q-R restrictions) on banks, stock markets, insurance, pension funds, etc., and (iii) allowing for freer movements in domestic and international flow of funds.
2. Financial Innovation: This encompasses both new financial instruments (swaps, credit derivatives, collateralized debt obligations, etc.) and the adoption of new practices by financial institutions.
3. Market Making: This is viewed as an integral part of financial liberalization, involving the promotion of greater competition among financial market participants and occasionally the setting up of new institutions and markets (primary dealers,money market mutual funds, etc.)
4. Financial Supervision: As financial liberalization proceeds, it is expected that the central bank (and other regulators, if any) will move away from direct intervention in financial markets to indirect measures (such as provisioning norms, capital adequacy, etc.).

Financial liberalization seems at best a double-edged weapon. On the one hand, there does seem to exist a positive association between financial liberalization, savings, (domestic plus foreign) investment, and growth (though the causal nexus seems to run both ways). On the other hand, financial liberalization poses several problems for monetary and fiscal policy and increases the vulnerability of developing economies to banking and currency crises.

This chapter examines the progress of financialiberalization in four South Asian economies, viz. India, Pakistan, Bangladesh, and Sri Lanka. The next section examines the pros and cons of financial liberalization. The literature on the various issues under this rubric is vast and burgeoning, so our discussion should be seen as nothing more than an overview. The third section is devoted to a study of the financial liberalization process in India, while the fourth, fifth, and sixth sections are devoted to Pakistan, Bangladesh and Sri Lanka,

respectively. Where appropriate, comment is made on the adequacy of various safeguards in operation in these four economies. The final section provides some concluding remarks7.

Financial Liberalization : Theoretical Considerations and Empirical Evidence

This section examines four important and interrelated aspects of the financial liberalization process in developing countries (DCs) and emerging market economies (EMEs) viz: (i) the impact on growth; (ii) likely consequences for income distribution, poverty, and inequality; (iii) the challenges posed for monetary policy; and (iv) the possibility of increased vulnerability to financial crises.

(i)

Financial Liberalization and Economic Growth

The relationship between financial liberalization and economic growth has been extensively debated in the academic literature as well as in policy circles. The McKinnon-Shaw case for financial liberalization is based on the perception that financial repression (arising as a consequence of government control over important parameters of bank behaviour) tends to result in low (and often negative) real interest rates and an excess demand for credit. The resultant credit rationing lead to credit allocation to favoured sectors by administrative fiat rather than through the purview of a market mechanism. Following financial liberalization real interest rates would rise to their natural levels and economic growth would result from an increased quantum of domestic savings and a rise in total factor productivity (TFP) due to an improvement in the quality of bank credit for investment purposes. Additionally, if foreign capital inflows were to be liberalized, then the quantum of aggregate investible funds would rise because of the flow of foreign direct investment (FDI). To these basic considerations, several others have been added in the more recent literature. For example, Acemoglu and Zilibotti (1997) suggest that liberalization fosters specialization and efficiency in capital allocation by leading to a diversification of risk across countries. Levine (2001) and Klein and Olivei (1999) draw attention to the possibility of foreign investment improving the functioning of the domestic financial system by increasing competitive pressures and inducing adoption of international best practices. On the other hand, some authors have underscored the likely harmful effects of financial liberalization in triggering financial crises and in misdirecting the allocation of capital (see Saidane 2002, Eichengreen 2001).

The empirical literature, while undoubtedly throwing a great deal of light on the *conditioning* factors determining the way financial liberalization affects growth, has compounded the theoretical controversies. It would be pointless to attempt to survey the vast empirical evidence, but some of the more important and interesting conclusions need to be pointed out. The literature mainly seems to have addressed three sets of issues, namely:
(i) Does financial liberalization spur growth? ;
(ii) What are the channels through which financial liberalization is likely to affect growth? ;
(iii) What are the factors accounting for the cross-country differentials in the effects of financial liberalization?

On the first of these issues, the evidence can at best be described as mixed. Some studies have uncovered a beneficial association between financial liberalization and growth[1] (see among others, Levine 2001, Bonfiglioli and Mendicino 2004, Bekaert et al. 2001;),

[1] As noted by Saidane (2002), this still begs the question about the correct ordering of causality between growth and financial liberalization and the issue of separating the effects of financial liberalization on growth from that of overall liberalization.

others have found the effect to be detrimental (Eichengreen and Leblang 2003), while some find no association at all (see Rodrick 1998, Kraay 2000, Grilli and Milesi-Ferretti 1995).

The lack of unanimity is even more evident when we turn to an examination of the likely channels via which financial liberalization impinges on growth performance. We confine ourselves to a very brief discussion of some of the important channels that have received varying shades of emphasis in the literature. Bonfliglioli (2005) finds that the main channel via which financial liberalization spurs growth is the impact on TFP. This beneficial impact on productivity derives in considerable measure from the fact of financial liberalization driving up the competition for international funds, thereby forcing capital into the most productive channels. Hubbard (1998) and Gilchrist and Himmelberg (1998) maintain that by reducing the premium on external finance and correcting capital market imperfections, financial liberalization acts as a spur to economic growth. Rajan and Zingales (1998) and Love (2000) find that financial constraints act as less of an impediment to growth in financially developed economies. Bhattacharya and Daouk (2000) show how equity market liberalization not only allows in additional foreign capital but also often results in better corporate governance at the insistence of foreign investors.

It is also being increasingly realized that cross-country studies slur over the differential effects of financial liberalization and hence much of the new literature is addressed to isolating the factors responsible for such differential effects. Two sets of factors have been broadly distinguished. On the one hand, there are the country specific factors such as local conditions, internal policies, size of the government, the structure of the legal system, levels of education and other human capital variables etc. (La Porta et al. 1997) and, on the other, there are factors that are outside the control of individual countries such as the diversification potential of the local equity market for world investors, regional trading and investing agreements, etc. (Bekaert et al 2001). Empirical models are then constructed which try to decompose the effects of financial liberalization on growth attributable to each of these various factors separately. The general conclusion to emerge from these studies is that these factors are important conditioning variables that should figure prominently in the design of a sustainable strategy of financial liberalization.

Financial Liberalization and Equity

Inequality is possibly one of the most neglected dimensions of the on-going liberalization programme in South Asia. It becomes one of the crucial factors determining sustainability of financial sector reforms, because of the following three features identified by Nancy Birdsall (2005).

(i) Inequality inhibits growth in countries with weak markets and governments.(ii) Inequality undermines good public policy, by undermining collective decision making and social institutions critical to healthy societies (the so-called ‘vanishing middle class’ syndrome).

1. (iii) A cross-country correlation analysis reported in Birdsall (2005) indicates a low but positive correlation (0.33) between inequality (as measured by the Q5/Q1 index) and the poverty headcount ratio (US 1 per day threshold).

A distinction is usually attempted between two kinds of inequality, viz. (1) within-country inequality across regions and federal states, and (ii) within-country interpersonal inequality.

. Regional Inequality

The study by Ahluwalia (2002) (covering 14 major states) showed a sharp increase in the Gini coefficient from 0.175 (1991-2) to 0.233 (1998-9), based on the SDP (state domestic product) per capita. Deaton and Dreze (2002) reiterate similar conclusions but based on per capita consumption across states. Singh et al. (2003), however, challenge the robustness of these conclusions, by noting the sensitivity of the results to the attainment indicators used with, in particular, the use of the HDI (human development index) tempering the inequality conclusion considerably. Most of these studies seem to point to an important role for private investment and FDI in explaining divergence of per capita SDP or consumption. However, the fact that private investment and FDI emerge robustly as important determinants of a state's economic performance could be interpreted as indirectly pointing to the importance of financial liberalization in aggravating inequalities between states (since both private investment and FDI would be strongly driven by the extent of financial infrastructure in a state). By and large, firm econometric evidence of financial liberalization per se leading to an aggravation of regional inequality seems to be weak.

. Interpersonal Inequality

Perhaps this facet of inequality is the one which attracts the maximum attention of policy makers and academics alike. For India, the central features from major studies such as Mundle and Tulasidhar (1998), Ravallion and Datt (1999), and Jha (2000) are that in the 1990s, while there has been a moderate rise in both rural and urban inequality (in contrast to the two previous decades when inequality remained constant), accompanied by a decline in urban poverty, the widening of the ruralurban income gap has implied a significant increase in overall inequality. Ravallion and Datt (1999) also point to a decline in the poverty alleviation elasticity of growth.

Three explanations have been advanced to explain the re-emergence of income inequality in the 1990s, viz. (i) traditional causes (such as land concentration and unequal access to education and health), (ii) technological change (increasing the wage differential s as between skilled and unskilled workers), and (iii) Domestic and External Liberalization. Given the current focus of the chapter the last three aspects is analysed in greater detail. While domestic and external liberalization includes, inter alia, trade and investment liberalization, labour market reforms, taxation reforms and privatization, this chapter focuses on the consequences for equity of financial sector reforms.

So far as reforms in the domestic financial sector are concerned, they tend to raise the share of financial services in the GDP. A particularly puzzling feature, for which there seems to be no analytical explanation, is the relative rise in financial sector salaries as compared to salaries in the manufacturing sector (even after correcting for standard conditioning factors such as education levels, hours worked, non-salary incentives, etc.). Another factor contributing to inequality is the redistributive impact of the budget, which, in a largely deregulated financial environment, could transfer labour incomes to holders of state bonds. The liberalization of cross-border direct investment flows, as well as bank loans and portfolio investments has three potential consequences for inequality. Firstly, there is the 'disciplining' effect on domestic policy, involving tax reforms and restraints on organized labour. Secondly, capital inflows are likely to lead to real exchange rate appreciation, which shifts

resources to the non-tradeables sector and encourages sub-contracting and wage cuts in the tradeables sector to preserve profit margins (see Taylor 2000). Thirdly, increasing openness of the capital account increases the vulnerability of the domestic economy to financial crises (Caprio and Klingebiel 1996). This aspect is discussed at greater length below, but it is important to note here that such crises have pronounced disequalizing effects, especially in countries with weak institutions and social safety mechanisms. Galbraith and Lu (1999) for example, document that in Latin America financial crises (1998-99) raised inequality by 73 per cent and in the Asian financial crisis (1997) inequality rose by 62 per cent. Diwan (2000) also notes the marked permanent decline in labour shares following financial crises. In the detailed study by Behrman et al. (2000) for wage inequality in Latin America, it is found that the strongest disequalizing effects seems to be attributable to domestic financial reform, capital account liberalization, and tax reforms (in that order).

Monetary Policy in the Era of Financial Liberalization :

Prior to the onset of financial liberalization, the prevailing paradigm for monetary policy rested on the famous triad of instruments intermediate targets/indicators objectives.[2] The guiding principles behind the triad were essentially threefold:

(i) The intermediate targets (usually simple-sum or Divisia monetary aggregates) were 'controllable' via the instruments (either a short-term interest rate or the monetary base) within tolerable margins of error.

(ii) The monetary targets bore a stable relationship with macroeconomic aggregates (such as output, inflation, and long-term interest rates), so that the intermediate targets served both as early warning signals of portending changes in the macro-aggregates, as well as guideposts for the intended trajectories of these aggregates.

(iii) The flexible exchange rate regime in operation in much of the developed world implied a certain independence for the pursuit of national monetary policies [in the case of the European Union (EU), this statement has to be suitably qualified].

Financial liberalization seems to have irreversibly jeopardized all three of the above premises. To facilitate the discussion we analyse the consequences of the domestic and global aspects of financial liberalization on the conduct of monetary policy in a separate fashion, though this separation is somewhat artificial.

So far as the consequences of domestic financial liberalization are concerned, as noted by Tobin (1983), the leverage exerted by the monetary authorities on non-financial variableswas precisely because money bore an exogenously fixed nominal interest rate, inducing portfolio substitution between 'money' and 'non-money' assets in response to changes in interest rate levels. The process of financial liberalization implies a greater role for market forces in the pricing of bank deposits, whose demand thus becomes more dependent on the spread (between nominal rates on money and near money assets) than on the level of nominal rates. Since monetary authorities are much better at influencing short-term rate levels than the spread, this factor seriously erodes their ability to control monetary aggregates.[3]

Another feature, critically germane to the matter, is the blurring of the distinction between the liabilities of banks and non-bank financial institutions (NBFIs). There is in

[2] This framework still survives in many countries albeit in a somewhat battered form.

[3] Currency, no doubt, is an exception to this phenomenon, but most likely, an increasingly unimportant one.

evidence a massive increase in money substitutes, although most central banks have tried to accommodate this development by continuous revisions of the definitions of money supply.

Such a development poses serious difficulties for the conduct of monetary policy, as traditionally a central bank's control over banks has been far more effective than over NBFIs[4]. Since the products offered by the banks and NBFIs overlap to varying degrees, with respect to their moneyness and other characteristics (such as interest paid), it is becoming increasingly difficult to measure or define a given monetary aggregate over time (Akhtar 1983).

It has also to be noted that the link between monetary aggregates and important macroeconomic magnitudes (especially nominal income) has been rendered tenuous (in the wake of financial liberalization) due to a host of factors such as

(i) the blurring of the distinction between money and near-money;
(ii) the breakdown of the money demand function (Akhtar 1983, Cotula 1984 etc.)[5];
(iii) the easing of credit and liquidity constraints [owing to the emergence of variable rate lending and large-scale 'liability management'- see Goodhart 1986, 1989)] ; and
(iv) the rising role of arbitrageurs in financial markets, which has introduced considerable volatility in the yield curve (Brown and Manasse 1989).

Finally, the international dimension of financial liberalization is reflected in a greater integration of global capital markets in recent years. International capital flows, always on the lookout for profitable portfolio opportunities, are quick to respond to domestic interest changes, setting up a tendency for real interest differentials between countries, to become insignificant. This implies, of course, that the pursuit of domestic monetary policy is seriously circumscribed by the unpredictable responses of global capital flows. As a matter of fact, a famous trilemma succinctly sums up the various issues involved. The trilemma in question (see Bernanke 2005 for a recent exposition) refers to the impossibility of maintaining in simultaneous operation (for a given country) all three of the following policy regimes: (i) an open capital account, (ii) a fixed exchange rate, and (iii) an independent domestic monetary policy. Of course, in practice, concepts like 'openness', 'fixity' or 'independence' are not absolute, but relative or even fuzzy. Hence the trilemma needs to be interpreted as a move in one direction having to be compensated by a countervailing move along another dimension.[6]

For the advanced economies the choice seems to be clear (at least to most academics and policy makers), viz. the benefits of capital mobility and independent monetary policy exceed whatever costs may be associated with a system of freely floating exchange rates. For the LDCs and EMEs, the picture becomes more hazy. One view (see Vegh 1992, Dornbusch and Warner 1994, Bernanke 2005) maintains that the best course for such economies is to overcome their deeply ingrained 'fear of floating' and let the exchange rate float freely. A firm central bank commitment to gear monetary policy exclusively to maintaining a low and stable inflation rate would then provide the much needed 'nominal anchor' for the

[4] Many countries have tried to retain this division between banks and NBFIs. In the United States for example, the Banking Act of 1933, or the Glass-Steagall Act (GSA) that kept banking and brokerage functions separated, was repealed as late as November 1999 and replaced by the Gramm-Leach-Bliley Act, which eliminated the GSA restrictions. The new Act allowed banking institutions to provide a broader range of services, including underwriting and other dealing activities. The subsequent growth of Negotiated Order of Withdrawal (NOW) accounts has made large changes to the U.S. "money supply".

[5] This feature is somewhat mitigated if Divisia indices, rather than simple-sum aggregates are used in the definition of money (Gabb and Mullineux1995).

[6] Obstfeld et al (2004) present several historical instances of the trilemma.

macroeconomic system. There are two major arguments against a '"free float"' for such economies.

1. Firstly, as Sargent (1982) has noted, a fixed (or heavily managed) exchanged rate can be a suitable guard against high inflation, and can even act as a strong brake on persistent hyperinflations.[7] A fixed exchange rate commands visibility and is more credible than a direct inflation target (both because the former is observable instantaneously unlike the inflation rate which suffers from a lag of at least a few weeks and also because its measurement is non-controversial in contrast to the several competing measures suggested for the inflation rate in the literature).
2. Secondly, Calvo and Reinhart (2000) have drawn attention to the low credibility of policy makers in several LDCs, which could mean that a flexible exchange rate could exhibit high volatility (both short-term and long-term). The latter is usually recognized as exports-inhibiting and could also lead to volatility in capital inflows and domestic interest rates (if these are unregulated) via the covered interest parity (Calvo 1996, Kwack 2003, Cavoli and Rajan 2006) etc.).

In the Indian context, the problems confronting monetary policy in the wake of capital inflows (and financial liberalization generally) have been discussed extensively in Rangarajan (2000), Reddy (2008), Mohan (2007), Nachane and Raje (2007), etc. There has been in evidence a general movement away from a heavily managed exchange rate system of the 1980s and early 1990s towards a more flexible policy of letting the exchange rate gravitate towards its equilibrium value (as determined by market fundamentals). Today the concerns over exchange rate management are limited to short-term considerations such as the need to smoothen out excessive volatility and foreclose the emergence of destabilizing speculative activities and are usually subsumed under the rubric of 'overall financial stability'. Even though the Reserve Bank of India (RBI) does not have a target exchange rate band in mind, it has not hesitated from pro-active intervention to prevent undue nominal exchange rate intervention. However such episodes of 'leaning against the wind' are becoming increasingly less frequent now as the economy is showing signs of a robust growth and successful integration with the international economy. But, as the following quotation from Mohan (2007, p. 13) illustrates, India's exchange rate policy is in a state of evolution and may undergo a substantial transformation in the foreseeable future.

.. the Dutch disease syndrome has so far been managed by way of reserves build-up and sterilization, the former preventing excessive nominal appreciation and the latter preventing higher inflation. However the issue remains how long and to what extent such an exchange rate management strategy would work given the fact that we are faced with large and continuing capital flows apart from strengthening current receipts on account of remittances and software exports. [8]

Financial Vulnerability

The theoretical case for financial liberalization derives from the textbook models of efficiency in financial markets. That such models may be inappropriate for LDCs and EMEs was forcefully pointed out in an influential paper by Diaz-Alejandro (1985). The asymmetric information literature also highlights that the behaviour of financial markets is often irrational, propelled by animal spirits on successive waves of optimism and pessimism (see

[7] He cites the role of exchange rate stabilization in ending the 1920s European hyperinflation.
[8] The introduction of the MSS (Market Stabilization Scheme) in April 2004 assumes significance in this context as an important tool for short-term liquidity management.

see for example, Greenwald et al. 1984). The Latin American crises of the 1980s, the Asian financial crisis of 1997 and the Russian crisis of 1998 provided a fresh impetus for economists to examine afresh the relationship between financial liberalization and financial crises. Two types of financial crises may be distinguished, viz. domestic (bank failures) and external (balance of payments). A growing body of empirical evidence seems to be pointing towards an inexorable link between financial liberalization and financial crises. How does this link operate? Domestic financial liberalization opens up new avenues for risk taking via the development of complex derivative products and securitization, which can get excessive in the face of lax supervision and irresponsible credit rating. The opening up of the capital account aggravates the risk further by permitting the opening up of huge short-term foreign exposures. Broadly speaking, the risks attendant on financial liberalization may be classified into five categories: (i) currency risk, (ii) capital flight risk, (iii) fragility risk, (iv) contagion risk, and (v) sovereignty risk. [These risks are discussed in detail in Nachane(2007)].

An increasing amount of empirical evidence seems to be strongly indicating that financial liberalization increases a country's vulnerability to both banking and currency crises. The literature has been critically evaluated and empirically tested in Wyplosz (2001), whose four main lessons are worth noting:

(i) By increasing exchange rate volatility, financial liberalization contributes towards of increased financial fragility,
(ii) There is a clear boom bust cycle for developing countries, with a peak to trough gap that can be as high as 20 per cent,
(iii) The boom exceeds the bust in magnitude but not in duration,
(iv) Financial restrictions (including primarily restrictions on capital flows) by slowing down market reactions can make all the difference between a temporary turmoil and a long drawn meltdown, and
(v) The consequences of a financial crisis are more pronounced in LDCs and EMEs because of poor financial supervision and regulation, corruption, opaqueness in legal provisions, etc.

Having examined the important dimensions of financial liberalization and their interface with important macroeconomic aspects, we now turn to an examination of the progress of financial reforms in South Asia.

A India: Financial System and Reforms

B Financial System

The Indian financial system comprises the RBI at the apex, numerous financial intermediaries**,** the money market, the debt market, **t**he foreign exchange market, and the equity market**.** Financial intermediaries include commercial banks, co-operative banks, and NBFIs.

The RBI plays an instrumental role in the Indian financial sector. Being the country's monetary authority, it formulates, implements, and monitors India's monetary policy. As a prime regulator and supervisor of India's financial system, it uses and prescribes broad parameters of banking operations within which the country's banking and financial system functions. The RBI supervises, among others, commercial banks, cooperative banks, development finance institutions (DFIs), and non-banking financial companies (NBFCs). Through its monetary policy, the RBI aims to secure stability in the internal and external

value of the Indian currency and manages the foreign exchange market. Besides performing the traditional role of acting as the banker to the government, it also provides merchant banking services to both Central and state governments. The RBI also does other traditional central banking activities such as currency issuance, promotional functions, etc.

Banks are the oldest form of financial intermediaries in India and they are segregated into various categories, viz. commercial banks, regional rural banks, local area banks, and co-operative banks. Commercial banks constitute the largest segment of India's financial system. India had 179 commercial banks as of September 2007. Of them, 175 were scheduled commercial banks (SCBs) and 4 were non-scheduled commercial banks (NSCBs) and of 175 SCBs, 95 are regional rural banks.[9] The country has 73,836 bank offices that are located in the rural (30,560), semi-urban (16,484), urban (13,840), and metropolitan areas (12,952). Its population to bank branch ratio is roughly 16000:1.

One important aspect of India's commercial banking is the dominance of the public sector commercial banks (PCBs) in terms of branch offices and banking operations. Out of 73,836 bank branches, nationalized banks (excluding the State Bank of India group) have the largest number of branches at 36,927, followed by regional rural banks (14,773), State Bank of India and its associates (14,465), other SCBs (7363), foreign banks (276), and NSCBs (32). The balance sheet of the SCBs shows that the share of public sector banks is much higher than private and foreign banks in terms of total assets, deposits, advances, and investments. Of all assets, the shares of the public sector banks, private sector banks, and foreign banks are 70.5, 21.5, and 8.0 per cent respectively, as of 2007.

Co-operative banking is an integral part of India's banking system. It comprises of two major components, viz. urban co-operative banks (UCBs) and rural co-operative credit institutions (RCCIs). Of them, RCCI has the largest number of branch networks and its structure is more diverse and complex than UCBs that maintain a single tier structure. The number of branches at end-March 2007 for UCBs and at end-March 2006 for RCCIs were 1813 and 1 07497 respectively.

NBFIs are an important segment of India's financial system. NBFIs consist of a heterogeneous group of diverse institutions that includes development finance institutions (DFIs), insurance companies, NBFCs, primary dealers (PDs), and capital market intermediaries such as mutual funds. NBFIs offer a variety of products and services and play an important role in broadening the access of a vast section of the population to financial services. As of March 2005, there were 8 DFIs and 13,187 NBFCs in India.

The money market is another key component of India's financial system, as it is the pivot of RBI's monetary operations. The RBI employs short-term interest rates as a key instrument of monetary policy. The abolition of ad hoc treasury bills (T-bills) and introduction of regular auctions of T-bills paved the way for the emergence of a riskfree rate, which has become a benchmark for pricing the other money market instruments (RBI 2006-7). The average daily turnover in the India's money market increased from Rs[10] 427 billion in 1997-8 to over Rs 888 billion in 2006-7.

[9] For detailed structure of the Indian banking system, see Figure A 10.1.
[10] Rupee (Rs), in this section, refers to the Indian rupee.

The Indian debt markets are one of the largest in Asia and include the government securities (G-Secs) and corporate bond market. The G-Sec market consists of Central and tate overnment securities, zero coupon bonds, floating rate bonds, securities with embedded options and T-bills. The corporate securities market comprises of FI bonds, public sector units (PSU) bonds, and debentures/corporate bonds. The G-Secs market is the oldest and the largest component of the Indian debt market in terms of market capitalization, outstanding securities and trading volumes. The G-Secs market plays a critical role in the Indian economy as it provides the benchmark for determining the level of interest rates in the economy through the yields on the government securities. However, the market has remained predominantly a wholesale market. The corporate debt market remains undeveloped *vis-à-vis* other segments of India's financial markets. The market for debt derivatives have not yet developed appreciably; nevertheless, a market for over-the-counter (OTC) derivatives in interest rate products exists. The outstanding bond volume over Gross Domestic Product (GDP) was roughly 35 per cent at the end of 2006.

The Indian equity market has witnessed an unprecedented growth in recent years. There are a total of 23 stock exchanges in India, but the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE)[11] comprise 83 per cent of the total volumes. The Securities and Exchange Board of India (SEBI), among others, regulates the country's equity market. In the Indian stock markets, the most popular indices are the BSE SENSEX (Sensitive index) and the S&P CNX Nifty. The BSE SENSEX, also called the 'BSE 30', is a widely used market index in India. It consists of the 30 largest and most actively traded stocks, representative of various sectors, on the BSE. These companies account for around one-fifth of the market capitalization of the BSE. Nifty is a well diversified 50 stock index accounting for 23 sectors of the economy. It accounted for 56.52 per cent of total market capitalization of the Capital Market segment of NSE as of end-March 2006.

India is already the fourth largest financial market in Asia after Tokyo, Hong Kong, and Shanghai. The NSE has become the world's second fastest growing bourse in terms of number of listed companies, while BSE has consolidated its position as the biggest bourse as of July 2007 with 1274 and 4853 listed companies respectively. Over 9000 companies are listed on the Indian stock exchanges, which are serviced by approximately 7500 stockbrokers. The market capitalization in the Indian equity market amounted to $US1.58 trillion as at November 2007, which is higher than the country's GDP. The daily average turnover in the cash and derivative segment of the Indian equity markets were Rs 118 billion and Rs 298 billion respectively (as of 2006-7).

The foreign exchange market in India has grown exponentially in recent years. Full convertibility on the current account and gradual liberalization of capital account transactions have resulted in a large increase in transactions in the foreign exchange market. Financial innovation in the foreign exchange market such as the Rupee foreign currency swap market, introduction of additional hedging instruments (foreign currency Rupee options), and other products like cross-currency options and forward rate agreements have transformed the market over the years. The daily average turnover in the foreign exchange market amounts to over Rs 1950 billion (US$50.1) as at the end of December 2007.

Financial Sector Reforms in India

[11] It is the biggest stock exchange in India and the third biggest in the world in terms of amounts of transactions.

Financial sector reforms in India were initiated as a part of the structural adjustment programmes in the early 1990s. Prior to reforms, this sector was characterized inter alia by administered interest rates guided by the social concerns, high intermediation costs, a low base of capital, directed credit programmes for the priority sectors, high degree of non-performing assets, low intensity of technologies, stringent entry barriers for new entrants, and excessive regulations. To sum up, the environment in the financial sector in these years can be best characterized by segmented and underdeveloped financial markets coupled with paucity of instruments (Reddy 2004).

With the objective of developing a market-oriented, competitive, well-diversified, and transparent financial system, the concerned authorities, in particular the RBI and the newly established SEBI , introduced a wide-range of reforms in the Indian financial sector. The first phase of these reform programmes was initiated in the early 1990s. It was based on the recommendations of various committees, notably the Chakravarty Committee (1985), the first Narasimham Committee[12] (1992), and the second Narasimham Committee[13] (1998). The reform measures that have been undertaken since the 1990s in the various sub-sectors and areas of the Indian financial sector will be discussed below in some detail.

Since the early 1990s financial sector reforms have focused on (i) removing the restrictions on pricing of assets; (ii) building of institutional and technological infrastructure; (iii) strengthening the risk management practices; (iv) fine-tuning of the market microstructure; (v) changes in the legal framework to remove structural rigidities; and (vi) widening and deepening of the market with new participants and instruments (RBI 2006-7).

The private sector was allowed to set up banks, mutual funds, general insurance companies, etc. A reduction of public ownership in public sector banks was encouraged by allowing them to raise capital from the equity market up to 49 per cent of paid-up capital. Foreign banks were allowed to set up their offices subject to certain guidelines. The share of public sector banks in the aggregate assets of the banking sector declined from 90 per cent in 1991 to around 75 per cent in 2004. The share of wholly government-owned public sector banks sharply came down from about 90 per cent to 10 per cent of aggregate assets of all scheduled commercial banks during the same period. Since 1993, 12 new private banks have been set up. Foreign direct investment in the private sector banks is now permitted up to 74 per cent.

Consolidation in the financial sector is another important landmark of the India's financial reforms. The detailed guidelines for merger between NBFCs and banks have been laid down. During 2006-7 and the first half of 2007-8, four banks were merged/amalgamated with other banks.

Institutional and legal reforms in the financial sector have been beefed up. A Board for Financial Supervision (BFS) was constituted in 1994. Reforms in the supervisory areas have also been initiated. The RBI had instituted a state-of-the-art off-site monitoring and surveillance (OSMOS) system for banks in 1995 as part of a crisis management framework for the so-called Early Warning System (EWS). A Board for Regulation and Supervision of Payment and Settlement Systems (BPSS) was formed in 2005 to prescribe policies with regard to the regulation and supervision of all types of payment and settlement systems. Accounting standards and disclosure norms have been strengthened.

[12] Also known as the Committee on Financial Systems (CFS).
[13] Also known as the Committee on Banking Sector Reforms (CBSR).

Financial sector reform is a continuing process. The RBI, the SEBI, and other regulators in India are currently carrying out reforms, among others, in the area of banking sector consolidation, capital account convertibility, risk management capabilities, capital adequacy rules, BASEL II[14] implementation, corporate debt market development, and some other evolving areas in the capital markets.

Banking Sector Reforms and Interest Rate Deregulation

The deregulation and rationalization of interest rates has been one of the key aspects of India's financial sector reforms. Prior to reforms, the entire structure of interest rates was complicated and had multiple layers. Following the recommendations of various committees [notably the committees headed by Chakravarty (1985), Narasimham (1991), Reddy (2001), and Rakesh Mohan (2004)] interest rates structure in India transformed from highly administered to a market-determined one with some exceptions.[15]

The key rates in the banking sector, especially deposit and lending rates, have undergone a rapid process of liberalization. The process commenced with the consolidation of different categories of lending rates and slabs in 1992-3. Subsequently (in 1994-5), banks were released from the obligation to adhere to minimum lending rates and were granted complete freedom to fix interest rates on loans above Rs 2 lakhs. Interest rates on term deposits have been completely deregulated since 1997.

To reduce interest rate spreads, banks have been required to announce the maximum spread over the prime lending rates (PLR) since 1996. Banks were allowed to offer a fixed rate or a floating rate linked to an anchor rate on deposits. Banks have been allowed to charge fixed/floating rate loan at or above PLRs for credit limit of over Rs 2 lakh. The tenor linked prime lending rates (TPLRs) was introduced in 1999 to give the SCBs more operational flexibility. Banks were given the flexibility to charge interest rates without reference to the PLR with respect to certain categories of loans/credit such as discounting of bills, lending to intermediary agencies, etc. To provide further operational flexibility to commercial banks in deciding their lending rates, it was decided to make PLR a benchmark rate. The export credit interest rates were rationalized by linking them to the ceiling rate related to PLR. In 2003-4, in order to enhance transparency in banks' pricing of their loan products, the RBI advised banks to announce a benchmark PLR with the approval of their Boards.

Thus the inherited administered interest rates structure stands largely liberalized except for certain specific classes of deposits (savings deposit accounts, non-resident Indian (NRI) deposits) and loans (small loans upto Rs 2 lakhs and export credit). Direct restraints on lending through the use of the Cash Reserve Ratio (CRR) and the Statutory Liquidity Ratio (SLR) by the RBI has been reduced. Attempts were made to reactivate the Bank rate by linking it to all other refinance rates in 1997 but, in recent years, seems to have fallen into disuse again.

[14] Basel II is the second of the Basel Accords, which are recommendations on banking laws and regulations issued by the Basel Committee on Banking Supervision.

[15] For instance, interest rates on small savings, provident fund, non-resident Indians deposits, and export credit are continued to be administered.

Interest rates on all money market instruments have been market determined since 1992. In the money market, repos were introduced in 1992 for maturity up to 14 days. Subsequently repos were allowed against all Central government dated securities and T-bills (since 1997), the reverse repo facility with RBI in government dated securities was extended to the Discount and Finance House of India (DFHI) and the Securities Trading Corporation of India (STCI) in 1995-6, access to call/notice market was liberalized through PDs in 1997-8, and interest rate swaps (IRS) was introduced in 1998-9. Liquidity Adjustment Facility (LAF) was introduced in 2000 to stabilize short-term interest rates and has emerged as an important tool both for liquidity management and as a signalling device for interest rates in the overnight market.

In the money market, Zero Coupon Bonds were introduced in January 1994 and Floating Rate Bonds were introduced on 29 September, 1995 with rates linked to the 364day TB rate. Capital Indexed Bonds were floated on 29 December, 1997 on tap basis.

The RBI specifies an interest rate ceiling for NRI foreign currency deposits and NRI rupee deposits. Since July 2003, these have been linked to the London Interbank Offered Rate (LIBOR) for selected international currencies, less 25 basis points for nonresident Indians' foreign currency deposits and plus 250 basis points for NRI rupee deposits.

All these measures have been of help in reducing interest rates over the years. The nominal deposit rate for 1–3 year maturities dropped from 12.0 per cent in 1991–2 to 4–5.25 per cent in 2004–5, and the nominal lending rate over the same period dropped from 16.0 to 10.25 per cent. The incremental CRR of 10 per cent was removed and the average CRR reduced from 15 per cent in 1991-2 to 10 per cent in 1995-6, and it was further reduced to 4.75 per cent in 2003. The SLR has been gradually reduced from a peak of 38.5 per cent to 25 per cent in 1997. Nevertheless, in recent years there has been in evidence a hardening of interest rates as well as an increasing resort to the CRR with a view to reining in inflation whenever there have been indications of the economy getting overheated.

. Government Securities (G-Sec) Market

Several measures have been taken to reform the G-Sec market. The switchover to an auction based system of issuance of government securities in the early 1990s was a major step towards the development of the G-Sec market. Administered interest rates on G-Secs were replaced by an auction system for price discovery. Automatic monetization of the government deficit has been phased out. As a result, the RBI was prohibited from subscribing to primary issuance of G-Secs from April 2006. A 364-day T-Bills replaced the 182-day T-bills in 1992-3 and the auction of the 91-day T-bills commenced from 1993. Primary dealer (PD) system was introduced in 1996 to facilitate the development of the G-Sec market. Delivery versus Payment (DvP) System was introduced in 1995. Repo and reverse repo were launched as a tool of shortterm liquidity adjustment. Introduction of the Liquidity Adjustment Facility (LAF) in 2000 has been one of the most important recent changes in the money market. Zero Coupon Bonds, Floating Rate Bonds, Capital Indexed Bonds were issued, and exchange traded interest rate, futures and OTC interest rate derivatives like IRS and forward rate agreements (FRAs) were introduced. Foreign Institutional Investors (FIIs) are allowed to invest in G-Sec subject to certain limits. The Negotiated Dealing System- Order Matching (NDS-OM) system in the G-Sec market was introduced in August 2005.

A major development in the Indian money market is the establishment of the Clearing Corporation of India Limited (CCIL) which was set up in April 2001. It provides exclusive clearing and settlement for transactions in money, G-Secs, and foreign exchange. The CCIL introduced a new product, Collateralized Borrowing and Lending Obligations (CBLO), in 2003 with the objective of providing an alternative avenue for managing short-term liquidity for the market players who have been restricted and/or being phased out of the call market. The operationalization of the CCIL has ensured guaranteed settlement of trades and has, therefore, imparted considerable stability to the G-Sec market (RBI 2006-7).

Corporate Debt Market:

Corporate debt market in India has not developed in tandem with other segments of its financial sector. The fixed income market (both the primary and the secondary markets) in India is dominated by government securities, and the size of the corporate bond segment is only 14 per cent of the total debt market. Nevertheless, the reform process in the corporate bond market was initiated in the early 1990s. A major stimulus to the development of the corporate bond market has been the withering away of the development banks that were traditionally a major source of external long term finance for industrial projects (Patil 2005).

In the primary market, the Public Sector Undertakings (PSUs) have been issuing bonds since 1985-6 which are subscribed mainly by the large investors, including banks. The presence of the retail investors in the market is low. Nevertheless, falling interest rates have encouraged the corporate sector to reduce their heavy reliance on the banking sector. Bond issuance by the corporate houses has increased steadily though there have been some fluctuations in recent years. Bond issuers generally prefer private placement thanks to its flexibility and operational ease. The financial institutions furnish about 80 per cent of the funding resources whereas other private corporate entities account for the remaining 20 per cent. SEBI has mandated that all trading of corporate bonds must proceed through the order matching screens of the stock exchanges. The RBI has instructed banks and PDs that their investments in unlisted corporate bonds should not exceed 10 per cent of their investment portfolio of non-SLR securities. In the secondary debt market, the activities in the corporate bonds segment is very low as the market is highly dominated by a limited number of players, being a pure OTC market.

However, all these reforms did not deliver the expected results. As Reddy (2007c) has observed, 'while primary issuances have been significant, most of these were accounted for by public sector institutions and were issues on a private placement basis to institutional investors. The secondary market, therefore, has not developed commensurately and market liquidity has been an issue.' (Reddy 2007c, p. 2166)

With a view to examining the entire gamut of issues involved in developing a sound corporate debt market, the Government of India (GOI) had constituted a high powered committee (the Patil Committee) in 2005. The committee identified some areas for the concerned authorities to focus on if the market was to be made active and vibrant. The committee made several useful suggestions. Firstly, it highlighted the importance of rationalization of the stamp duty across the country. Secondly, the committee was of the opinion that for improving liquidity in the market, there was an urgent need to limit the fragmentation of issues. Thirdly, the committee felt that the development of a centralized counter party to the trades in the secondary market, and an appropriate hedging mechanism

were imperative for developing an active corporate bond market. Fourthly, the committee drew attention to the fact of trading and issuance taking place in a totally non-standardized way and called for a single standardized method for interest day count conventions.

The Patil Committee also highlighted that in order to develop a sound primary corporate debt market there is a need for enhancement of issuer and investor base, development of a market maker, consolidation of privately placed bonds and development of a bond primary issuance database. For development of the secondary market, the Committee also recommended some measures, notably in the area of trade reporting system, clearing and settlement system, bond issuance, and securitization.

The RBI, SEBI, and the government of India have accepted these recommendations and many of them are now in different phases of implementations.

Equity Market

India has had a long history of stock trading, dating back to 1875, with the Indian equity market being one of the oldest in Asia. However, it remained underdeveloped until the late 1980s. The reform process in the Indian securities market began with the establishment of SEBI in 1988, which became a fully-autonomous body in 1992.[16] Subsequently, the equity market in India underwent a series of reforms in the wake of the famous securities (Harshad Mehta) scam of April 1992. The SEBI Act, 1992 was enacted to empower SEBI with statutory powers for protecting the interest of investors in securities, and for promoting and regulating the securities market. Apart from the SEBI Act, 1992, three major legislations governing the securities market are the Company Act, 1956 (revised 2004), the Securities Contracts (Regulation) Act 1956 (SCRA), and the Depositories Act, 1996. The government's control over the issue of capital, pricing of issues, fixing of premia and rates of interest on debentures etc. effectively ceased with the removal of the Capital Issues (Control) Act, 1947 in May 1992.

The NSE was established during the early 1990s. With a view to providing efficiency, transparency, and liquidity, NSE introduced a nation-wide online fully-automated screen based trading system (SBTS). To assist market participants to manage risks better through hedging, speculation, and arbitrage, SC(R)A was amended in 1995 to lift the ban on options in securities. Demutualization process has been initiated where ownership, management, and trading are with three different sets of people. To reduce settlement risk, the Depositories Act, 1996 was passed to provide for the establishment of depositories in securities with the objective of ensuring free transferability of securities with speed and accuracy. To avoid any kind of market failures, the regulators and the exchanges have developed a sophisticated risk management system. To integrate the Indian exchanges with other global markets Indian companies have been permitted to raise resources from abroad through the issue of American Deposit Receipts (ADRs), Global Depository Receipts (GDRs), Foreign Currency Convertible Bonds (FCCBs), and External commercial Borrowings (ECBs). Moreover, FIIs are also allowed to invest in all types of securities, including G-Secs. Such investments are entitled to full convertibility on the capital account. The Indian Stock Exchanges are also permitted to set up trading terminals abroad, which are now globally accessible through the Internet.

[16] However, the responsibility for regulating the securities market in India is shared by two other entities namely, the Department of Economic Affairs (DEA) and Department of Company Affairs (DCA).

Another important milestone in India's equity market reforms has been the development of the derivative markets. Reforms of the derivative markets took place based on various recommendations, principally those of the Dr L. C. Gupta Committee (1996) report. The trading of derivatives products started in India in 2000, and a variety of products are traded now at the NSE and the BSE.[17] This segment of the equity market has witnessed substantial product innovations since its inception. The trading in BSE Sensex options commenced in June 2001 and the trading in options on individual securities commenced in July 2001. Futures contracts on individual stocks were launched in November 2001. The derivatives trading on NSE commenced with S&P CNX Nifty Index futures in 12 scripts in 2000. The trading in index options commenced on 4 June, 2001 and trading in options on individual securities commenced on 2 July, 2001. Single stock futures were launched on 9 November, 2001.[18] Trading in interest rate derivative instruments was approved by the RBI and the SEBI in 2003. Another notable development is the NSE's introduction (in 2003) of trading in futures contracts on 91-day Notional T-Bills.

Foreign Exchange Market

The Indian foreign exchange market is ahead of many other segments of India's financial system in terms of product innovation. Reforms in the foreign exchange market have been undertaken to transform the market from being a heavily controlled one to a market-driven one. India has moved gradually from a fixed exchange rate to a market based exchange rate system.[19] The Rupee, India's currency unit, was made convertible on the current account in August 1994. The Indian exchange rate regime gradually moved from a single currency fixed-exchange rate system to fixing the value of the Rupee against a basket of currencies to market determined floating exchange rate regime. The exchange rate regime is officially described as market determined, with no target rate, but the RBI reserves the right to intervene in the market to resist speculative attacks and to guide the exchange rate in the directions of 'appropriate' competitiveness.

The reform measures in the foreign exchange market were further augmented based on the recommendations of the Sodhani Committee (1994) report, which suggested relaxing the regulations with a view to vitalizing the foreign exchange market. With the replacement of the Foreign Exchange Regulation Act (FERA) by the market friendly Foreign Exchange Management Act (FEMA), 1999, the RBI delegated powers to authorized dealers to release foreign exchange for a variety of purposes. Capital account transactions were also liberalized in a calibrated manner, notably following the Tarapore Committee reports.[20] The financial liberalization in the early 1990s provided the economic rationale for the introduction of foreign exchange (FX) derivatives. The facility of hedging transaction risks through foreign currency rupee options was introduced by the RBI with effect from 7 July 2003. Authorized dealers have been permitted to use innovative products like cross-currency options, interest rate and currency swaps, cap/collars, and FRAs in the international forex market. OTC interest rate derivatives IRSs/FRAs were introduced. Exchange traded interest rate

[17] Only two exchanges in India have been permitted to trade in derivatives contracts.
[18] The index futures and options contract on NSE are based on SandP CNX.
[19] Indian exchange rate regime gradually moved from a single currency fixed-exchange rate system to fixing the value of the Rupee against a basket of currencies to market determined floating exchange rate regime. It aims at managing volatilities in exchange rates without targeting any specific levels.
[20] Report of the Committee on Capital Account Convertibility, 1997, and The Committee on Fuller Capital Account Convertibility, 2006

derivatives (IRDs) was introduced in 2003 to enable better risk management in the Indian market.

Commodity Derivatives Market

India had a flourishing commodity derivatives market in the early twentieth century. However, in the early years of independence a feeling gained ground that commodity derivatives fuelled excessive speculation, and accordingly, commodity options trading and cash settlement of commodity futures was banned in 1952. For the next 50 years a commodity derivatives market in India was virtually non-existent, except for some minuscule OTC operations. The situation, however, changed drastically in 2003 with the emergence of three important national electronic exchanges, viz. Multi-Commodity Exchange of India Ltd. (MCX), National Multi-commodity and Derivatives Exchange of India Ltd. (NCDEX), and National Multi-Commodity Exchange of India Ltd., Ahmedabad (NMCE). In addition, there are 21 regional commodity exchanges. Currently commodity futures (but not options) are permitted in 108 commodities, and the volume of trading has already crossed the US$1 trillion mark. The MCX offers futures trading in bullion, ferrous and non-ferrous metals, pulses, oils and oilseeds, crude oil, spices and several other agricultural commodities, whereas the NCDEX engages in futures trading of commodities such as wheat, cashew, castor seed, chana, chilli, coffee, cotton, cotton seed oilcakes, gold, silver, etc. The regulation of commodity futures is governed by the Forward Contracts (Regulation) Act 1952, which envisages a two-tier system of regulation with the Forward Markets Commission (FMC) providing overall supervision on a day-to-day basis, but the ultimate regulatory power residing with the Ministry of Consumer Affairs, Food and Public Distribution, Government of India (see Ahuja 2006).

Market Making

Market Making is viewed as an integral part of financial liberalization, involving the promotion of greater competition among financial market participants and occasionally the setting up of new institutions and markets. Primary dealers (PDs) play an important role in making markets for financial products, especially in the primary stage of a country's financial development. Nevertheless, cross-country experiences show that the role of market makers does not always decline as markets mature.

The RBI introduced the system of Primary Dealers[21] in the G-Sec Market in 1995 with the following objectives: :

(i) to strengthen the infrastructure in the government securities market in order to make it vibrant, liquid, and broad based;

(ii) to ensure development of underwriting and market making capabilities for government securities outside the RBI so that the latter will gradually shed these functions;

(iii) to improve the secondary market trading system, which would contribute to price discovery, and enhanced liquidity and turnover, besides encouraging voluntary holding of government securities amongst a wider investor base;

(iv) to make PDs an effective conduit for conducting open market operations (RBI 2007).

[21] It is an arrangement between two major stake holders in the Government Securities market- the debt manager and a group of dealers to pursue a common strategy in support of functioning and development of primary and secondary markets for government securities.

Banks that do not have a partly or wholly owned subsidiary undertaking PD business and which fulfil some criteria [Minimum net owned funds (NOF) of Rs1000 crore, minimum Capital to Risk-Weighted Assets Ratio (CRAR) of 9 per cent, and net NPAs of less than 3 per cent of their assets and a profit making record for the last three years] are eligible to apply for PD licence.

PD obligations are, among others, giving annual bidding commitment, underwriting primary issuances and offering two-way quotes, achieving prescribed success ratios for dated securities and T-bills and realizing a minimum turnover in government securities. The RBI takes into account both the bidding commitment and the performance of PDs in the primary and secondary markets. The RBI provides liquidity support to the PDs through LAF against collateral of government securities and through repo operations. They are also permitted to borrow and lend in the Call Money market and to trade in all money market instruments. They are granted favoured access to open market operations and also allowed to underwrite for a commission the offerings of dated government securities.

Moreover, currently PDs are permitted to operate in the stock and derivative markets. In June 2003, they were allowed to transact in exchange traded interest rate futures in order to make available a wide array of products for banks to hedge their interest rate risk effectively. While earlier PDs were allowed to hold trading as well as hedging positions in Interest Rate Futures (IRFs), banks were allowed only to hedge their underlying government securities in 'available for sale' (AFS) / 'held for trading' (HFT) category portfolio through IRFs. In order to broadbase the PD system, the permitted structure of PD business was expanded in 2006-7 to include banks.

The periodical supervisory returns being submitted by PDs were rationalized and simplified. A new quarterly return (PDR-IV) on certain balance sheet and profit and loss (PandL) indicators was introduced from 31 March 2004. Revised 'capital adequacy standards and risk management guidelines' for PDs were issued in January 2004.

The share of turnover of PDs in outright market for G-Secs has declined in recent years, reflecting increased participation by banks. There were 17 PDs in operation in India at the end of 2006. However, due to interest rate reversal, all the PDs except one made losses in the last financial year. The RBI set up a committee that recommended that PDs may be merged with their parent banks. Consequently, most of the PDs floated by banks merged with parent banks and there are only 8 stand alone PDs in India today.

Technological Upgradation

An integral dimension of financial liberalization is the increasing role of technology, especially information technology. Reflecting this thrust, the RBI has consistently encouraged banks to adopt advanced technologies to enhance their global competitiveness with a special focus on information technology in order to keep pace with the rapid strides occurring in banking systems worldwide such as branch-banking, E-banking, off-site ATMs, anywhere banking, credit cards, debit cards and smart cards, etc. Several initiatives have been launched in this connection notably Society for Worldwide Interbrain Financial Telecommunication (SWIFT), Real Time Gross Settlement System (RTGS), and automated Clearing House (ACH) (Sharma 2004). Additionally, considering that banks have been moving away from plain vanilla lending to commercial and industrial lending, customers now

have more options in terms of cash management, channel financing, and foreign currency loans. Product innovations and process re-engineering are being designed to meet these newer customer requirements that ultimately reduce costs and improve efficiency.

Current and Capital Account Liberalization

India has made substantial progress in terms of current and capital account convertibility. The current account was made convertible in August 1994 by accepting Article VIII of the International Monetary Fund (IMF). Consequently, the Rupee has been convertible on the current account. The capital account has been witnessing gradual liberalization; however, there is a strong debate in India whether the capital account should be convertible fully.

In 1997, a committee was set up for charting a course towards full capital account convertibility under the Chairmanship of S. S. Tarapore (henceforth Tarapore I). Tarapore I adopted a threefold approach. First, it enumerated the major kinds of restrictions that were in force in India for capital account transactions. For this purpose, it grouped these restrictions according to the sector that they were applied to viz. (i) corporates (domestic/resident), (ii) corporates (foreign/non-resident), (iii) banks (domestic/resident) (iv) banks (foreign/non-resident) (v) NBFIs (resident), (vi) NBFIs (non-resident) (or what are now popularly called as foreign institutional investors), (vii) individual (residents), (viii) individuals (non-residents), and (ix) financial markets. Second, the committee laid down a framework for the progressive dismantling of each of these restrictions over a short span of three years (that is, by April 2000). Third, it laid down a series of macroeconomic conditions that needed to be fulfilled before capital account convertibility was finally attained.[22]

Nevertheless, the Asian financial crisis cast the entire issue of capital account liberalization in a fresh perspective. As Goldstein (1998), Singh (2002), Bhalla and Nachane (2001), etc. have noted the extent of capital account liberalization made a big difference to the incidence of the crisis on individual countries, and countries like India and China managed to avoid the worst consequences of the crisis mainly because their capital accounts still had a number of restrictions in place. The recommendations of Tarapore I had been shelved for a few years subsequent to the crisis.

However, following the high growth phase of the last few years, Indian policy makers once again revived the capital account convertibility issue. A new committee was set up once again under the Chairmanship of S. S. Tarapore in March 2006 (henceforth Tarapore II). The recommendations of Tarapore II are discussed in some details in Nachane (2007). Tarapore II essentially marked a follow-up to Tarapore I. It began by reviewing the extent to which the earlier Committee's recommendations had been actually implemented. It then laid down a detailed time-frame for achieving full convertibility and also drew out a new set of safety guidelines. As discussed in Nachane (2007), the major recommendations of Tarapore I have been either followed or even exceeded. So, one may say that there has already been a 'creeping movement' in the direction ofcapital account convertibility. However, Tarapore II is far more ambitious in the scope of its recommendations, and intends to take India quite a bit further along the road to full (or almost full) capital account convertibility. This it proposed to do progressively in three phases: Phase I (2006-7), Phase II (2007-9) and, Phase III (2009-1). The major recommendations of Tarapore II are set out below:

[22] These conditions are listed in Nachane (2007).

1. Removal of overall ECB ceiling of US$ 22 billion and removal of restrictions on end-use of ECBs.
2. Limits on corporate investments abroad to be doubled from the current limit of 200 per cent of net worth.
3. Banks to be allowed to borrow overseas up to 50 per cent of paid-up capital and reserves in Phase I, which amount can be raised to 75 per cent in Phase II and 100 per cent in Phase III.
4. As against the current limit of US $25,000, individuals to be allowed to remit abroad (annually) up to US$ 50,000 in Phase I, US$ 100,000 in Phase II and US$ 200,000 in Phase III.
5. Currently only NRIs are allowed to invest in companies listed on Indian stock exchanges. The Committee recommended extension of this facility to all non-residents (through SEBI registered entities such as mutual funds and other portfolio management schemes)
6. FIIs to be prohibited from raising money through Participatory Notes (PNs).

Except for the issue of PNs which seems to be still under discussion, most of the other recommendations have already been accepted. For example in September 2007, limits on direct investment abroad was raised to 300 per cent of net worth (for companies incorporated in India). Similarly in October 2007, the annual limit on individual remittances was raised to US$ 200,000 in line with the recommendations of Tarpore II.US$.

Financial Supervision and Regulation

One feature which sometimes escapes proponents of financial sector reforms is that a precondition for the success of reforms is a strengthened and highly effective system of supervision and a reorientation of regulation. One of the strengths of the Indian financial reforms story has been the emphasis placed by the RBI and other concerned authorities on these aspects right since the inception of reforms. This emphasis seems specially justified in the aftermath of the bank runs experienced in several EMEs in the 1980s and during the Asian financial crisis in 1997-8. . To supervise the country's financial sector the Board for Financial Supervision (BFS) was set up in 1994. It consists of a four-pronged approach that includes a restructuring system of inspection, setting up of off-site surveillance, enhancing the role of external auditors, and strengthening corporate governance, internal controls, and audit procedures. The Department of Supervision was split into the Department of Banking Supervision (DBS) and Department of Non-Banking Supervision (DNBS) in 1997. A new approach was adopted for the on-site inspection of banks based on the Capital adequacy, Asset quality, Management, Earnings appraisal, Liquidity and Systems and Controls (CAMELS) model. A rating system for domestic and foreign banks based on the international CAMELS model combining financial management and systems and control elements was introduced in 1998. An off-site monitoring system for surveillance over banks was set up by the RBI in 1996.

New draft guidelines on restructuring/rescheduling were issued in June 2007 with a view to aligning the existing guidelines on restructuring of advances with the provisions under the revised corporate debt restructuring mechanism. To develop a healthy secondary market for NPAs, guidelines on sale/purchase of NPAs were issued in July 2005. The issue was reviewed in response to concerns expressed by banks and the guidelines were partly modified in May 2007.

To minimize the adverse impact of fraud activities on the financial system, a Fraud Monitoring Cell (FrMC) was instituted in June 2004 for centralized monitoring of frauds detected in entities regulated by the RBI.

The RBI endorsed the Narasimhan Committee I's[23] recommendations on endorsing internationally accepted norms for capital adequacy standards, developed by the Basel Committee on Banking Supervision (BCBS). The BCBS initiated Basel I norms in 1988, which can be considered as the first global initiative towards risk-weighted capital adequacy norms. The BCBS framework on capital adequacy in India was introduced in 1992. As a result, all scheduled commercial banks were required to maintain a CRAR of 8 per cent in a phased manner, which was revised to 9 per cent from 2000 onwards. Basel I, though a major step forward in capital regulation, had serious shortcomings that became increasingly evident with time. Subsequently, the Basel committee proposed a New Capital Adequacy Framework in June 1999 incorporating three major elements or pillars.[24] After the first proposal of June 1999, there were two subsequent consultative packages, released in 2001 and 2003. Finally, on 26 June 2004 the central bank governors of the G10 countries endorsed the revised framework for the 'International Convergence of Capital Measurement and Capital Standards', commonly known as the new Basel Capital Accord or 'Basel II'.

The RBI's reaction to the Basel accord has been discussed at some length in Nachane et al (2005). First, while the RBI agreed with the view that the focus of the New Accord might be primarily on internationally active banks, it contended that after a period of time, all 'significant' banks would be expected to adhere to it. The RBI recognized that even this simplified approach is likely to be more extensive and complex than the 1988 Accord, and hence recommended that the New Accord may be applied, in phases.

Second, a basic difference of view between the New Accord and the RBI lies in the relative roles of supervisors vis-à-vis external rating agencies. The RBI (2001) categorically reiterates that the External Credit Assessment Institutions should not be assigned the direct responsibility for risk assessment of banking book assets. Furthermore, the RBI pointed out that unsolicited ratings by external agencies are generally superficial, and could lead to a potential trade-off between competition and quality in the rating industry. Consequently, it favoured the view that preferential risk weights should be assigned only on the basis of solicited ratings. In a similar spirit, the RBI pointed out that the risk weighting of the banks should be de-linked from the credit rating of the sovereign in which these banks are incorporated.

The RBI has initiated several measures to implement certain important components of the Basel Accord as well as to beef up the risk management practices in banks and other financial institutions. It issued guidelines on the asset liability management (ALM) system in 1999, which covered interest rate risk and liquidity risk measurement/ reporting framework

[23] The Narasimhan Committee I was set up in 1991 to review the state of the financial sector.

[24] These three pillars are: (i) minimum capital requirements, based on weights intended to be more closely aligned to economic risks than in the 1988 Accord, (ii) supervisory review, which set basic standards for bank supervision to minimize regulatory arbitrage and (iii) market discipline, which spells out greater levels of disclosure and standards of transparency by the banking system. The objectives of the New Basel Capital Accord, as enunciated by the BIS are five-fold: (i) promoting safety and soundness of the financial system; (ii) enhancing competitive equality; (iii) adoption of comprehensive approach to addressing risks (iv) greater sensitivity to the degree of risk involved in banks' activities; and (v) a focus on internationally active banks, with the possibility kept open of the various provisions being applicable in a phased manner to banks with varying levels of complexity and sophistication (Bank for International Settlements, 2001).

and prudential limits. The Risk Based Supervision (RBS) process was introduced from April 2003. To assist banks in setting up appropriate risk management frameworks, guidelines on credit risk management, market risk management, and risk based internal audit were issued. The Risk Profile Template (RPT) for use in commercial banks was forwarded to all banks. Further, guidelines on country risk management and provisioning have been issued to banks. These guidelines require banks to formulate appropriate Country Risk Management (CRM) policies. In tandem with these developments, the third pillar of the New Accord is being strengthened by broadening the range of disclosures of information that banks have to disclose as part of 'Notes on Accounts' to their balance sheet. As per the guidelines issued in June 2007, banks were required to put in place appropriate stress test policies and the relevant stress test framework for the various risk factors by 30 September 2007. Banks were obliged to ensure that their formal stress testing frameworks are in operation from 31 March 2008.

The final guidelines on the revised capital adequacy framework were issued to banks in India in 2007. According to the guideline, internationally active Indian banks were expected to migrate to the Basel II with effect from March 2008 and other commercial banks (excluding local area banks and regional rural banks) advised to migrate to the new capital accord by March 2009. It has been decided that banks in India will initially adopt the Standardized Approach[25] for credit risk and Basic Indicator Approach[26] for operational risk. After adequate skills are developed, at both bank and supervisory levels, some banks may be allowed to migrate to the Internal Ratings Based (IRB) Approach[27] subject to the specific approval of the RBI.[28]

The RBI advised a 'three track' approach for Basel compliance to the Indian banks. The commercial banks are Basel I compliant with respect to credit and market risks; the urban co-operative banks maintain capital for credit risk as per Basel I and for market risk through surrogate charges; and the rural banks have capital adequacy norms that are not on par with the Basel norms (Leeladhar 2006; Reddy 2006).

Banks have also been advised to formulate and operationalize the Capital Adequacy Assessment Process (CAAP) as required under pillar II of the New Framework. The RBI has also placed emphasis on the post-Basel II migration impacts. In order to assess the impact of Basel II adoption in various jurisdictions and re-calibrate the proposals, the BCBS is currently undertaking the Fifth Quantitative Impact Study (QIS 5). India will be participating in the study, and has selected 11 banks that form a representative sample for this purpose (Leeladhar 2006). A parallel run of the revised framework is being conducted by the banks, which will allow them to streamline their systems and strategies so as to ensure a smooth transition to Basel II.

To assess the state of India's financial stability, a Committee on Financial Sector Assessment (CFSA) was constituted by the Government of India in 2006 under the Chairmanship of Dr Rakesh Mohan. The assessment is based on three mutually reinforcing pillars, viz. (i) financial stability assessment and stress testing; (ii) legal, infrastructural, and

[25] According to the International Convergence of Capital Measurement and Capital Standards (Basel II), the standardized approach is a set of risk measurement techniques for banking institutions. The term may be used in the context of credit risk or operational risk.

[26] The Basic Indicator Approach is a set of operational risk measurement techniques proposed under Basel II capital adequacy rules for banking institutions.

[27] It refers to a set of credit risk measurement techniques proposed under Basel II capital adequacy rules for banking institutions.

[28] The RBI has released Draft Guidelines for implementation of the New Capital Adequacy Framework on 15 February , 2005.

market development issues; and (iii) assessment of the status and progress in implementation of international financial standards and codes. The CFSA is expected to complete its assessment by end of 2008.

Pakistan: Financial System and Reforms

Financial System

The financial system in Pakistan comprises of the State Bank of Pakistan (SBP) at the apex, various financial intermediaries, the money market, and the capital market. Financial intermediaries include commercial banks and NBFIs. Being the country's central bank, the SBP regulates and supervises Pakistan's banking sector along with all NBFIs, except for *Modarabas*[29] and leasing companies. It conducts monetary policy, and manages public debt and foreign exchanges. It is also the banker to the government and performs other traditional central banking functions.

Banks, with a share of 72 per cent in total assets dominate the asset base of Pakistan's financial sector. Currently, there are 47 scheduled banks, six DFIs, and two microfinance banks (MFBs) operating in Pakistan. The banking system comprises of four public sector commercial banks, four specialized banks, 26 domestic private banks, and 13 foreign banks.[30] As of June 2007, there were 7755 bank offices in Pakistan. In terms of deposits, advances, and investments, domestic private banks predominate over public sector and other banks. Currently, 80 per cent of the banking assets are held by the private sector banks.

NBFIs are classified into eight different groups of institutions, namely DFIs, investment banks, leasing companies, mutual funds, housing finance companies, discount houses, modarabas, and venture capital companies. The DFIs hold more than 30 per cent of the overall assets of NBFIs.

Financial Sector Reforms in Pakistan

As in many developing countries, the financial sector in Pakistan in the pre-reform era was characterized by typical features of a highly regulated system such as administered interest rates, directed and subsidized credit, dominance of nationalized commercial banks as financial intermediaries, and excessive regulations. The capital market was thin with low capitalization and rampant insider trading. The foreign exchange market was probably the most controlled one, among all financial segments.

The financial sector restructuring programmes in Pakistan started in the late 1980s with the twin objectives of strengthening the existing financial institutions on the one hand and developing an efficient financial system on the other. The IMF and the World Bank provided

[29] A Mudarabah is an Investment partnership, whereby the investor (the Rab ul Mal) provides capital to another party/entrepreneur (the Mudarib) in order to undertake a business/investment activity. While profits are shared on a pre-agreed ratio, loss of investment is born by the investor only. The mudarib loses its share of the expected income (http://www.hsbcamanah.com/1/2/hsbc-amanah/about-islamic-banking/glossary#mudaraba)

[30] For detailed structure of the Pakistani banks, see figure A 10.2 in the appendix

the technical and financial assistance to carry forward the reforms.[31] Later the Asian Development Bank (ADB) joined the reform bandwagon by providing a loan for the development of Pakistan's capital market.[32]

***Banking Sector Reforms and Interest Rate Deregulation*:**

The reform programmes focused on, inter alia, privatization of public sector banks, licensing to new commercial banks, merger and acquisitions of various financial institutions, rationalization of interest rate structure, non-performing loan (NPL) resolution, monetary and credit management, current and capital account liberalization, capital market development, and autonomy of the SBP and its restructuring.

By an amendment to the State Bank of Pakistan Act, 1956, the SBP was granted autonomy in February 1994. The SBP now enjoys complete independence in matters such as prescribing liquidity ratios for banks and fixing their cash reserves. The SBP's autonomy was further strengthened in 1997 by promulgation of three ordinances.

Privatization of nationalized commercial banks was started in the early 1990s. State-owned banks' domination in the banking sector was targeted to be reduced from almost 100 per cent in 1991 to 20 per cent by 2003. Consequently, four major state-owned banks[33] have been de-nationalized. The government relaxed the entry barrier of private and foreign banks in 1991. Major state-owned commercial banks and DFIs were re-structured and downsized in terms of branches and employees. In order to reduce dependency on the banking sector for credit, a number of NBFIs were granted entry and allowed to conduct lending operations.

To solve the problem of non-performing loans(NPL), a multi-track strategy was adopted which included creation of new institutions and enactment of new laws. As a result, the Corporate and Industrial Restructuring Corporation (CIRC) and Committee on Revival of Sick Industrial Units (CRSIU) were set up. The Financial Institutions (Recovery of Finance) Ordinance 2001 was promulgated and amendments were made to the Banking Companies Ordinance 1962.

The SBP liberalized the Branch Licensing Policy (BLP) in 2002 which led to the growth of small and medium-sized banks. However, the rapid growth in private commercial banks and NBFIs resulted in balance-sheet strains and other administrative problems for many financial intermediaries. Consequently, the SBP and other concerned regulatory agencies undertook several reform measures to consolidate the sector. To accelerate the mergers and acquisitions (M&A) activities, the SBP increased the capital requirements from Rs[34] 500 million in 2001 to Rs 3 billion by end of 2005, which is expected to increase further to Rs 6 billion in December 2009. The Banking Companies Ordinance 1962 was amended to facilitate the merger of banks and NBFCs. Both banks and NBFIs have witnessed around 50 cases of financial consolidation/ M&A since 2000.

[31] The IMF and the World Bank provided several financial sector restructuring loans to Pakistan, notably the Financial Sector Deepening and Intermediation Project (1995), the Financial Sector Adjustment Loan (1997), and the Financial Sector Restructuring and Privatization Project (2001).
[32] Capital Market Development Programme (1997).
[33] They are Muslim Commercial Bank, Allied Bank Limited, United Bank, and Habib Bank.
[34] Rupee (Rs), in this section, refers to the Pakistani rupee

The interest rate deregulation process in Pakistan started in the 1990s. Restrictions on banks' maximum lending rates (except on concessionary finance schemes) were removed in 1995. Since 26 July, 1997, the minimum lending rate has also been abolished. Banks and other financial institutions are allowed to determine their own deposit rates since June 1998. The credit ceiling as an instrument of credit control was abolished in 1992 and it was replaced by the credit deposit ratio (CDR). Subsequently, the CDR was removed in 1995. The lending rates which remained stagnant at around 11 per cent during 1985-92 increased to 13.6 per cent in 2000-1. However, the average deposit rate moved in the opposite direction, which resulted in higher interest rate spreads. The increase in spreads is attributable to several factors, chief among which are the gradual increase in NPLs and high administrative cost of financial institutions.

The banking sector has also witnessed a limited degree of product innovation in the wake of financial liberalization though most of the innovations have been confined to technological developments.

Capital Market Reforms

Pakistan has made some progress in the direction of capital market reforms since the 1990s. The regulatory, legal, and institutional framework for the capital market have been beefed up, a large number of state-owned institutions have been privatized, and the financial health of many ailing financial institutions has been restored. Nevertheless, the role of the capital market in Pakistan is still substantially lower than its potential. Several reform measures have been initiated since the 1990s under the auspices of the government and the ADB, among others. The Capital Market Development Program (CMDP) was initiated in 1997 under an ADB loan. The programme resulted in several fresh initiatives, including the establishment of the Securities and Exchange Commission of Pakistan (SECP), a modernized infrastructure for stock exchanges, full operationalization of an automated trading and a central depository system, establishment of a national clearing and settlement system, liberalization of mutual fund investment policies and harmonization of taxation for private and state-owned mutual funds, barring of institutional investment in National Savings Schemes (NSS) instruments to support corporate bond market development, and establishment of basic regulatory frameworks for insurance, leasing, and asset backed securities (ADB 2007). The reform measures undertaken in the corporate debt and the equity market are discussed below in some details.

Government Securities Market

The fixed income securities market in Pakistan includes both debt and debt-like securities issued by the government, statutory corporations, and corporate entities. The share of the government securities in total bond issuance is much higher than that of the corporate sector. More than 92 per cent of debt securities are sovereign bonds in the form of long-term Pakistan Investment Bonds (PIBs) or as short-term T-bills. The PIBs remain the longest tenor sovereign bonds which provide the benchmark yield curve for private issuances. National Savings Schemes provide risk-free investment options to retail and institutional investors. The size of the fixed-income market in Pakistan was US$ 32,410 million at the end of 2006, which was equivalent to 25.2 per cent of the country's GDP.

In the G-Sec market, a full-fledged auctioning system of T-bills was introduced in March 1991, and the system of *ad hoc* T-Bills was abolished. In order to create a long-term

yield curve of government securities and to provide benchmark pricing for private sector securities, the SBP launched the Pakistan Investment Bond (PIB) in December 2000, available in maturities of 5-10 years. PIBs with 15-year and 20-year maturity were introduced in January 2004.

Corporate Bond Market

The corporate bond market in Pakistan exists in the form of Term Finance Certificates (TFCs). TFCs are based on legislation enacted in 1984, which authorized the issuance of redeemable capital securities. As a debt instrument, the TFC is different from the traditional corporate bond to some extent, as it was specifically designed to comply with Sharia Law. The key difference is that the TFC substitutes the words 'expected profit rate' for 'interest rate.' (Leonardo 2000). Commercial and investment banks are the two main investors in private sector TFCs. In 1997, listed TFCs became 'approved securities' for the purpose of meeting statutory liquidity requirement (SLR) for NBFIs.

Like many developing markets, the corporate debt market in Pakistan remains underdeveloped in comparison to other segments of the financial sector. To develop a vibrant corporate bond market, several initiatives have been launched by the concerned authorities. Development of the corporate bond market has been constrained inter alia by the distortions caused by the high yields on NSS instruments. To remove the anomalies, the rates on NSS have been linked with the yields on market based instrument. Institutional investors have been barred from investment in NSS since March 2000. To increase investor's base, investment restrictions on institutional investors have progressively been liberalized.

Nevertheless, the market remained undeveloped and to identify impediments to the development of the debt market, a working group on 'Debt Market and Commercial Paper' was formed in 2005 comprising the representatives from SBP and SECP, among others. Various recommendations of the working group regarding reduction in initial listing fee for debt instruments, reduction in stamp duty on various debt instruments, and withholding tax on profits of TFCs have already been implemented. The debt market is currently undergoing a second phase of reform under the Second Generation Capital Market Reform Program sponsored by the ADB.

Equity Market

The equity market in Pakistan has undergone significant reforms in recent years. The reform programmes have focused on the areas of inter alia market development, investor's protection, risk management, and governance and transparency. The SECP regulates the equity market. There are three mutual stock exchanges of which the Karachi Stock Exchange (KSE), founded in 1947, is Pakistan's largest and oldest stock exchange. As of 20 December 2007, 671 companies were listed on the KSE with a market capitalization of Rs 4364.312 billion (US$ 73 billion) and a listed capital of Rs. 717.3 billion (US$ 12 billion). There are 278 registered brokers, and numerous mutual funds. The Central Depository Company of Pakistan Limited (CDC) was incorporated in 1993 to manage and operate the Central Depository System (CDS). The CDS is an electronic book entry system that records and transfers securities. The National Clearing Company was set up in 2001 to manage and operate the national clearing and settlement system. It acts as a centralized clearing house for the stock exchanges and promotes efficiency in clearing and settlement operations. To

enhance the level of liquidity in the market, Continuous Financing System (CFS) was introduced in 2005.

While derivatives have long been traded in Pakistan, the trading was usually confined to OTCinstruments. The formal market of derivatives started in Pakistan in 2003, with trading in future contracts introduced with a view to providing hedging instruments and investment alternatives to the investors. Since then, the derivative market in Pakistan has shown significant growth. New products like FX options, IRS, cross currency swaps (CCS), FRAs and Cash Settled Stock Futures Contracts have been introduced. In order to facilitate provision of financing to the market in a transparent and efficient manner, a new leverage product called Continuous Finance System (CFS) MK II has been initiated by the SECP.

The volume of IRSs and CCS were Rs 162 billion and Rs 101 billion respectively, in March 2007. To develop the derivatives market, the SBP has circulated the Financial Derivatives Business Regulations (FDBR) in 2004. The authorized derivatives dealers (ADD) or non-market maker financial institution (NMI) no longer required any prior approval from the SBP to launch/trade financial derivative products like IRS, foreign currency options, and FRA. The concept papers with regard to other derivative products, namely, Index Futures and Options, are under deliberations and these products are also expected to be launched soon.

New indices have been introduced in the stock markets. Of all, the KSE Index is the most popular index in the country's stock market which began as a 50 shares index. Subsequently, the KSE-100 was introduced and remains the most generally accepted measure of the exchange. The KSE-100 is a capital weighted index and consists of 100 companies representing about 86 per cent of market capitalization of the exchange. Two other active indices, the KSE All Share Index and the KSE-30 Index, were introduced in 1995 and 1996, respectively

Special emphasis has been placed on the development of risk management capabilities in Pakistan's equity market. Capital adequacy standards for brokers are being introduced in line with international standards. To avoid excessive volatility in the equity market, appropriate control measures of 'Circuit Breakers' have been introduced. To increase the level of transparency and disclosure in corporate reporting, a code of corporate governance was introduced in March 2002. As a part of the on-going liberalization programme, the capital market has been gradually opened to foreign investors. Foreigners and oversees Pakistanis have been allowed to make new investment in all industries with some exceptions.

Foreign Exchange Market

Since the early 1990s the foreign exchange market in Pakistan has gradually been deregulated. Foreign currency accounts (FCAs) scheme was launched for resident Pakistanis, money changers were authorized to deal in foreign exchange, forward cover for imports and exports was shifted to banks, and forward cover for FC loans was also transferred to banks. Phased approaches were adopted in 1998 to gradually move towards market-based exchange rate.

The foreign exchange market in Pakistan is regulated by the SBP. Commercial banks that hold authorized dealer (AD) status, the SBP, corporate treasuries, and inter-bank brokerage houses are, among others, the major participants in the foreign exchange market.

Market Making

With a view to developing a market for government securities, the Primary Dealer System was introduced in 2000 in the G-sec market. Initially seven banks were chosen by the SBP on the basis of their treasury expertise, infrastructure, and past performance. In order to make the system more broad based and meaningful, the rules concerning PDs were revised in 2003. The minimum paid up capital requirements were relaxed to allow brokerage houses to act as PDs. It is mandated by the SBP that only PDs are eligible to participate in the auctions of government securities. However, they can sell the securities (on a market-based auction system) to other banks and financial institutions. In order to allow an effective price discovery mechanism, each PD is allowed to short sell 5 per cent of the target amount before the auction. They are also obliged to underwrite the auctions of long term paper offered by the SBP. PDs are allowed to carry a short position in securities, managing it through repos up to a maximum of four consecutive weeks for bonds and one week for T-bills.

To keep the G-sec market liquid, PDs are mandated to work actively both in the primary and the secondary market. As a price maker, they are required to offer two-way quotes on marketable government securities. The PDs have been entrusted with the explicit responsibility of developing an active secondary market by supplying non-PDs and institutional investors with PIBs. All security trading activity by the PDs in the secondary market shall be done in spot value unless otherwise specified. As the PDs are the main source of market information for the regulators, a consultative mechanism between the SBP and the PDs been put in place.

Current and Capital Account Liberalization

The process of foreign exchange market liberalization in Pakistan started in 1991. Since May 1999, following a prolonged period of a managed float regime (1982-99), market based exchange rate system has been adopted. To make the current account fully convertible, all restrictions concerning the current account have been removed and several measures have been initiated to liberalize the capital account. The Pakistani Rupee was made convertible on current international transactions in 1994 as per the obligations of the IMF Article VIII. The Section 23 of the State Bank of Pakistan Act, 1956 was amended in 1999 to empower the banks to trade (buy and sell) foreign exchanges. Non-residents are permitted to invest freely in all but some specified industries. They are also allowed to remit dividends and disinvestment proceeds, and transfer shares without approval. Since 1996-7, non-resident investors have been allowed to trade in shares in the futures market through Special Convertible Rupee Account. Resident Pakistanis are allowed to open and maintain Foreign Currency Accounts (FCAs) with banks in Pakistan. Permission was given to Authorized Dealers (ADs), DFIs, and housing finance institutions to grant rupee loans to Pakistani nationals working overseas to purchase real estate properties in Pakistan. Foreign investors are allowed to bring in and take back their capital, as also to remit profits, dividends, and fees directly through their banks. Similarly, foreign portfolio investors can also enter and exit the market at their own discretion.

Financial Supervision and Regulation

The supervision of the financial sector in Pakistan has been invested with two regulators, namely the SBP and the SECP. Until December 2002, the SBP was responsible for regulating both the scheduled banks and the NBFIs. However, the SECP's responsibilities overlapped with SBP in some circumstances. Subsequently, the SECP, which was initially concerned with the regulation of the corporate sector and the capital market, was also empowered to supervise the NBFIs (except DFIs and House Building Finance Corporation) from December 2002. In addition, the SECP has been empowered to oversee various corporate and financial sectors service providers, including chartered accountant firms, credit rating agencies, corporate secretaries, brokers, surveyors, etc.

The SBP conducts both on-site and off-site supervision of all banks, using different tools and methodologies, notably the CAMELS approach for on-site supervision and the CAELS framework for off-site supervisions.[35] A new department called Off-Site Supervision and Enforcement Department (OSED) has been instituted in the wake of the re-organization of the former Banking Supervision Department under SBP restructuring. The OSED is responsible for off-site supervision of the banks and other financial institutions.

As the central banking supervisory focus around the world has shifted from 'compliance-based approach' to 'risk assessment-based approach', the SBP has evolved a uniform bank rating system in line with international benchmarks. In 2004, it instituted a new system of monitoring, surveillance, and supervision called the Institutional Risk Assessment Framework (IRAF). The new framework envisages a collaborative and flawless supervisory focus amongst the various supervisory departments within the SBP. The IRAF stipulates four criteria for evaluation of banks/DFIs, viz. (i) compliance with standards, codes, and guidelines, (ii) supervisory and regulatory information, (iii) financial performance and conditions, and (iv) market information and intelligence.

The risk-based capital framework was institutionalized with the adoption of Basel I in the late 1990s. Most banks in Pakistan maintain a higher capital adequacy ratio than the BASEL II requirements.[36] The average capital adequacy ratio (CAR) (capital-to-risk weighted assets) was 13.3 per cent in June 2007. To ensure a smooth transition to the new capital accord, a number of steps have been taken by the SBP, banks, and DFIs. To assess the existing capacity of the banks to meet additional capital requirements, a quantitative impact study (QIS) of Basel II (concerning the Standardized Approach) was conducted by the SBP in July 2004. Based on the QIS results, it was observed that "there would not be any significant increase in required capital and most of the banks will be able to meet capital requirement under Basel II rules' (SBP2005). To implement the Basel II framework, the role of credit rating agencies has been defined. In this regard, the SBP issued detailed eligibility criteria for the recognition of External Credit Assessment Institutions (ECAIs) in July 2005. Banks' internal plans for Basel II are reviewed and monitored continuously by the SBP.

[35] A bank/DFI is rated on each of its components viz., capital adequacy, assets quality, management, earning, liquidity, sensitivity to other risks, and systems and controls. Each component is rated on a scale of 1 (strong) to 5 (unsatisfactory) and on the basis of individual component rating; an overall composite rating is assigned to the institution. The CAELS is an off-site supervisory framework used for assigning banks, on quarterly basis, a composite rating on a scale of 1 (best) to 5 (worst) comprising of capital (C), asset quality (A), earning (E), liquidity (L), and sensitivity to other rRisk (S).

[36] The disaggregated analysis shows that out of the 41 banks, the number of well capitalized banks, i.e. the banks with CAR of more than 10 per cent, increased to 35 from 34 in March-07. Of the remaining seven, four have their CAR well above the 8 per cent (SBP 2007).

The SBP issued a road map for Basel II implementation in March 2005. A parallel run of the Basel-II framework has been underway in order to ensure smooth transition to Basel II. A parallel run of one and half year for the Standardized Approach has commenced from 1 July 2006 and of two years for the Internal Ratings Based (IRB) Approach started from 1 January 2008. The assessment of capital requirement on the basis of returns under the Basel-II framework shows that, "while adopting the Basic Indicator Approach (BIA), the Pakistani banks were required to allocate an additional capital charge of around Rs 29 billion for operational risk during 2006" (SBP 2007).

Detailed instructions for adoption of various approaches for calculation of capital adequacy requirements for credit risk, market risk and operational risk were issued on 27 June 2006. Banks in Pakistan are required to adopt the Standardized Approach for credit risk. For operational risk, the banks are allowed to adopt either Basic Indicator Approach or Standardized Approach from 1 January 2008. Banks can adopt the IRB Approach from 1 January 2010.

Capital reporting formats concerning capital calculation under Standardized Approaches for credit and market risk, and BIA and Standardized Approaches for operational risk were prescribed in March 2007. The gap between disclosure practices and requirements under market discipline (Pillar III) of Basel II were identified and detailed requirements for public disclosure were issued in February 2006. These instructions provide for the disclosures to be made by the banks under different approaches of the Basel II adopted by them. A detailed survey to assess the level of preparedness of the banks regarding Basel II implementation was conducted in February 2007 (SBP 2007).

To institutionalize the risk management practices in the banking system and other segments of the financial sector, the SBP and the concerned banks are upgrading their capacity pertaining to information technology and human resources. Banks have also been mandated to set up a risk management team.

Further, in order to gauge the vulnerability of the banks to various shocks, the SBP has instituted a framework of stress testing. Under the framework exposures of all the banks towards five major risks interest rate risk, credit risk, real estate price risk, equity price risk and exchange rate risk are assessed after giving unusual but plausible shocks to the underlying risk (IMF 2005).

Bangladesh: Financial System and Reforms

Financial System

The financial system of Bangladesh comprises the Bangladesh Bank (BB) at the apex, numerous financial intermediaries, the money market, the debt market, and the stock market. Financial intermediaries include commercial banks, specialized banks, NBFIs, and MFIs, the last constituting a very special feature of the Bangladesh financial system. The BB, being the central monetary authority of Bangladesh, performs most of the traditional functions of a central bank such as the supervision and regulation of banks and NBFIs, formulation and

implementation of monetary policy, management of foreign exchange reserves, and note issuance, besides being the banker to the government.The financial sector in Bangladesh is highly bank-dominated. There are four nationalized commercial banks (NCBs), five government owned specialized banks (SBs), 30 domestic PCBs, and 10 foreign private commercial banks (FCBs).[37] The total number of scheduled bank offices was 6576 as of March 2007, of which 3839 branches were in operation in the rural areas and 2737 in the urban areas. Out of 6576 scheduled bank branches, the NCBs operate 3384 branches, whereas SBs, PCBs and FCBs account for 1358, 1785 and 49 branches respectively. With four branches per 100,000 people, Bangladesh exhibits a rather low penetration of the bank network within the country. The breakdown of the share of assets and deposits of the various categories of banks (as of March 2007) was as follows: NCBs (assets 52.21 per cent, deposits 35.0 per cent), PCBs (assets 35 per cent, deposits 52.4 per cent), SBs (assets 7.5 per cent, deposits 5.6 per cent), FCBs (assets 5.29 per cent, deposits 7 per cent), A problematic feature of NCBs is the substantial NPL overhang in their portfolios, accounting for 75 per cent of total classified loans of the commercial banking system.

NBFIs are an integral part of the financial system of Bangladesh. As of March 2007, there were 29 NBFIs in Bangladesh, consisting of investment, finance, leasing companies, etc. with their operations regulated under the Financial Institutions Act, 1993. Only one NBFI is state-owned, 15 being privately owned (local), and the remaining 13 joint-ventures with foreign participation.

MFIs are one of the fastest growing financial intermediaries in Bangladesh, offering micro credit programmes (MCPs) to approximately 25 million borrowers, located primarily in the rural areas. These micro credit programmes are implemented by various formal financial institutions, viz. nationalized commercial banks, specialized banks, specialized government organizations, and semi-formal financial institutions that include nearly 1000 NGO-MFIs.

There are 62 insurance companies in Bangladesh, of which 18 companies provide life insurance and 44 entities offer general insurance services. The insurance sector is regulated under the Insurance Act.

Financial Sector Reforms in Bangladesh

As in almost all other countries of South Asia, the financial sector in Bangladesh prior to reforms was a highly repressed one. Banks and other financial institutions were owned by the government, and an active capital market was missing. As observed by Ahmed (2005), 'banks at early stages of history of Bangladesh were nationalized and there was mismatch between assets and liabilities. The central bank of the country had limited tools to manage monetary policy. Direct tools namely determination of SLR/CRR, administered interest rate policy and moral suasion were the man instruments of monetary policy. Most banks pursued a policy of financial deepening through extending bank branches to the remote and rural areas without considering financial viability'.

The liberalization process in the financial sector started in the 1980s with the privatization of two NCBs. Subsequently, several programmes were initiated to carry the reforms forward. Among the many initiatives launched with a view to laying out a road-map

[37] For detailed structure of the Bangladeshi banks, see Figure a 10.3.

for reforms, special mention needs to be made of the following: The National Commission on Money, Banking and Credit (NCMBC) constituted in 1984, the Financial Sector Reform Programme (FSRP) undertaken in active collaboration with the International Development Agency (IDA) in 1990, the high-powered Banking Reform Committee (BRC) set up by the government in 1996, and the Central Bank Strengthening Project (CBSP) undertaken in 2003 in order to achieve a strong and effective regulatory and supervisory system for the banking sector.

The reform programmes initiated under various auspices focused on several dimensions, most notably, privatization of state-owned banks, recovery of the NPLs, interest rate deregulations, increasing autonomy of the BB, enhancing prudential regulation and supervision, rationalization and merger of bank branches, and effecting improvements to the money and debt markets.

Banking Sector Reforms and Interest Rate Deregulation

The privatization of the NCBs and relaxation of entry barriers to private sector banks were the priority of the banking sector reforms. As a result of this thrust, several new private banks commenced operations during the early 1980s and 1990s and some state-owned banks were privatized. Additionally, the authorities have also taken initiatives to merge/rationalise NCB and DFI branches that have been incurring losses on a continuous basis for five consecutive years.

Abandoning its traditional administered and sector specific concessional credit facilities, the BB introduced a flexible interest rate policy in January 1990 under the FSRP. Under the new policy, interest rate bands were prescribed for different categories of loans, advances, and deposit rates. In 1992, the prescribed bands for lending rate were removed from all but three sectors, namely agriculture, export, and small-industry sectors[38] and NCBs, SBs, PCBs, and FCBs were allowed to set their lending rates in line with market conditions. Floors on savings and fixed deposit were continued, but ceilings were removed. In 1997, the floor rates on deposits were removed too. Currently commercial banks adjust deposit and lending rates in response to changes in the NSD (National Savings Directorate) rates.

The money market in Bangladesh plays a somewhat limited role. Participants in the call money market are mainly commercial banks and NBFIs. The BB has introduced repo, reverse repo, and the interbank repo operations from July 2002, April 2003, and, July 2003 respectively, in order to manage day-to-day liquidity positions in the money market and to strengthen the indirect monetary operations.

Important steps have been undertaken to improve the functioning of the inter-bank and T-bill markets, including the establishment of a settlement system for secondary market bond trading and introducing detailed ‘mark-to-market’ guidelines for government securities. The government and the BB have also taken steps to strengthen debt management operations. Separation of government cash and debt management started from 1 July 2006. Repo facilities are opened for the investors and they can borrow up to 90 per cent of the value against T-bills.

[38] Interest band on agriculture and small and medium-sized enterprises (SMEs) loans were also removed in 1999, whereas some modifications were made to the export credit bands in January 2004.

Somewhat uniquely in the South Asian context, BB has also tried to implement various reform measures directed at improving the various legal aspects bearing on issues such as corporate governance, loan recovery, exchange and interest rates management, risk management, and efficiency of the financial system in general.

Government Securities Market

The Ministry of Finance (MoF) issues T-bills and T-bonds, which are auctioned by the BB on behalf of the government. The primary market in both T-bills and G-Secs is dominated by commercial banks. The G-Secs are traded in the OTC segment and in the organized segment of the country's stock exchanges. The Central Depository Bangladesh Limited (CDBL) does the depository function for all securities including G-Sec and corporate bonds. Issues and turnover in G-Sec are dominated by the T-bills, which account for 80 per cent of transactions and 67 per cent of trading volume. The system of ad hoc T-Bill for financing the budget deficit was abolished and market-based auctions for treasury securities instituted in September 2006.

Corporate Debt Market

At the end of 2006, the size of total domestic debt (public and private) constituted a modest 15.58 per cent of the financial system, which is highly dominated by the government bonds. The size of the corporate bond market in Bangladesh is very small. There are eight corporate bonds (debentures) available in the market.

The corporate debt market in Bangladesh can hardly be said to have developed in tandem with other segments of the country's financial sector. There is virtually no corporate bond market, and whatever does exist can more aptly be described as a debenture market. The corporate bond market development has been constrained by a few critical factors, viz. distortions and high costs in the market, poor performance by issuers in meeting payment terms, and poor enforcement of investor (bond holder) protection. Some efforts have been underway of late, to establish conditions congenial for promoting investor confidence and participation, including household (retail) participation.

There exit a number of impediments in developing a corporate debt market. One major impediment is the relatively high interest payments on the NSD certificates thathas acted as a huge disincentive to investment in the market. However, in recent years this rate has been reduced significantly and the NSD returns are now more closely aligned with market rates. Second, there is no benchmark yield curve for the term structure of interest rates. The absence of such a long-term riskfree yield curve for the G-Secs constitutes a key obstacle to the development of an active bond market. The BB's recent switch to volume based auctions has the potential to make the auction system more transparent. The Government of Bangladesh introduced 5-year and 10-year Bangladesh Government Treasury Bonds (BGTB) in 2003, with the intention of facilitating the development of a long-term benchmark yield curve. Third, the Bangladesh bond market does not have a strong investor base. In addition to banks, the potential base for bond markets has typically included insurance companies, pension, provident, and mutual funds. All these sectors continue to remain undeveloped in Bangladesh. Credit rating agencies are a crucial ingredient in the development of efficient debt instruments. Two credit rating agencies have been permitted to evaluate credit qualities

of different financial institutions in Bangladesh but by and large the penetration of credit ratings must be considered as low.

Equity Market

In spite of Bangladesh having had a long history of securities trading, the equity market still remains underdeveloped, which is reflected in a very low stock market capitalization *vis-à-vis* the country's GDP.[39] However, the market has shown some signs of revival in recent years in spite of the stock market crash in 1996. The Securities and Exchange Commission (SEC) regulates the country's capital market under the Securities and Exchange Commission Act 1993. In addition, the Bangladesh Bank (BB) is empowered to regulate institutions engaged in financing activities (including leasing companies and venture capital companies) under the Financial Institutions Act 1993. Of the 29 NBFIs in the country, 12 are listed on the stock exchanges (as of 31 March 2007), including 19 merchant banks and portfolio managers and eight issue managers and underwriters. The country has two stock exchanges, namely the Dhaka Stock Exchange (DSE) and the Chittagong Stock Exchange (CSE), established in 1954 and 1995, respectively. The DSE is the country's major bourse, with, the total number of listed securities (as of May 2007) standing at 326, of which listed companies account for 260 and mutual funds for 14; of the remaining, there are 8 debentures and 44 treasury bonds. The market capitalization of the DSE at the end of 2006 was only 5.2 per cent of the country's GDP. The Investment Corporation of Bangladesh (ICB), established in 1976, underwrites issues of securities, provides substantial bridge financing programmes, and maintains investment accounts, besides floating and managing closed-end and open-end mutual funds. It operates both in the DSE and the CSE as dealer.

The securities market in Bangladesh has undergone some reforms since the 1990s. Entry barriers in stock trading have been relaxed, ownership restrictions on foreigners in the share market liberalized, and listing requirements and investor protection improved. The CDBL was incorporated as a public limited company in August 2000 to operate and maintain the Central Depository System (CDS) of electronic book entry for recording and operating securities accounts and for registering transfer of securities.

Foreign Exchange Market

The foreign exchange market in Bangladesh currently plays a very limited role. There was virtually no foreign exchange market in Bangladesh till 1993. The BB supervises the market and the ADs are the only resident entities in the market who transact and hold foreign exchange. There are 32 banks who act as ADs. The inter-bank foreign exchange market is still in its nascent stage and the average daily transactions of foreign exchange (US$/ Bangladesh Taka) in the inter-bank market amounted to a meagre US$ 16 million in 2006.

Market Making

In order to develop a vibrant market for government securities, the BB introduced the Primary Dealer System in 2003. Eight banks and one NBFI were selected as PDs. However, the PDs could not make any substantive difference in the G-Sec market. Subsequently, the PD guidelines have been amended and various incentives have been offered. According to the

[39] The market cap-GDP ratio was only 7.5 per cent in 2006.

new guideline, each of the bank and non-bank PDs are expected to underwrite a minimum of 12 and 4 per cent of the auction amounts, respectively. Apart from underwriting commission, they are eligible to avail of collateralized liquidity support from the BB through repurchase agreements.

Current and Capital Account Liberalization

On 24 March, 1994, the Bangladesh Taka (domestic currency) was declared convertible for current transactions in terms of the IMF Article VIII. As a result, current external settlements for trade in goods and services and for amortization payments on foreign borrowings can be made through the approved ADs to deal with foreign exchange, without prior central bank permission. However, because resident owned capital is not freely transferable abroad (Bangladesh Taka is not yet convertible on capital account), some current settlements beyond certain indicative limits are subject to approval.

Financial Supervision and Regulation

The BB assesses the performance and soundness of the banking sector under the CAMEL framework, which involves analysis and evaluation of the five crucial dimensions of banking operations, namely capital adequacy, asset quality, management soundness, earnings, and liquidity. An Early Warning System (EWS) was introduced in 2004 to streamline the BB's supervision of banks under threat of incipient crises. Measures have been undertaken to beef up risk based supervisions. And finally, a Money Laundering Prevention Act was enacted in 2002.

Loan defaulting is one of the key areas where the BB has initiated several supervisory measures, including provisioning, which has become necessary to cushion against increased loan defaults. The BB introduced new accounting policies on loan classification, provisioning, and interest suspense in 1989 in line with the international standards. This policy was successively revised in 1994, 1999, and 2001, with increasing stress on independent assessments of each loan on the basis of qualitative factors and objective criteria.

Risk-based supervision has been beefed up since the mid-1990s. Banks in Bangladesh were required to adopt BASEL I norms in January 1996, with capital adequacy requirements on scheduled banks imposed at a minimum of 9 per cent of risk in different types of assets (inclusive of off-balance sheet items) (with at least 4.5 per cent in core capital) or BDT 1 billion whichever is higher.[40] As of December 2006, the DFIs, PCBs, FCBs in Bangladesh had managed to attain the prescribed CAR. However, several NCBs fell short of the target, largely owing to shortage in owner's equity, provisioning shortfall and high operational costs.

In 2003, the BB issued guidelines on managing core risks to banks, which were also asked to build up their own risk management manuals on the basis of the prevailing guidelines. Since 2007, banks have also been mandated to have their credit portfolios rated by an approved credit rating agency.

Bangladeshi banks have been advised to implement the new Basel Accord in early 2009. To expedite the process a high level national steering committee was constituted in 2005. Furthermore, a coordination committee and a Basel-II implementation cell have been

[40] This amount was subsequently raised to BDT 2 billion

established in the BB. A quantitative impact study (QIS) was carried out in AprilMay 2007 to assess the banks' preparedness for Basel II implementation as well as to note banks' views on the optional approaches for calculating minimum capital requirements. Banks have been recommended to adopt the Standardized Approach for calculating risk weighted amount (RWA) against credit and market risk and the Basic Indicator Approach (BIA) for providing against operational risk. As a preparatory step towards the implementation of Basel II, banks have been required to maintain a CAR of 10 per cent from December 2007 onwards.

Sri Lanka: Financial System and Reforms

Financial System

The financial system in Sri Lanka comprises the Central Bank of Sri Lanka (CBSL) at the apex, numerous financial intermediaries, the money market, the bond market, the foreign exchange market, and the equity market. Financial intermediaries include licensed commercial banks (LCBs), licensed specialized banks (LSBs), registered finance companies, specialized leasing companies (SLCs), authorized PDs, insurance companies, and venture capital companies.

The task of supervising and regulating banks, finance companies, leasing companies, and primary dealers vests with the CBSL. The Securities and Exchange Commission of Sri Lanka is responsible for supervising the stock exchanges, stock broking and dealing firms, unit trusts, venture capital companies, investment managers, margin providers, and credit rating agencies. The major objectives of the CBSL are primarily twofold, viz. the maintaining of economic and price stability, and stability in financial markets. But as with most other central banks, it performs a host of other functions including currency, foreign exchange, and public debt management.

The banking sector in Sri Lanka comprises 23 LCBs (of which 11 are local and 12 foreign) and 14 LSBs.[41] (6 regional development banks, 3 private savings and development banks, 2 housing finance institutions, 2 long-term lending institutions, and 1 national savings bank). With a share of about 82.5 per cent of banking assets, LCBs dominate Sri Lanka's banking sector (with the LSBs accounting for the residual of about 17.5 per cent). The country has 3931 bank offices, of which 3516 outlets (89 per cent) are operated by LCBs. The six major LCBs are known as Systematically Important Banks (SIBs) and comprise two state-owned commercial banks and four domestic private commercial banks, with the major share of financial assets resting with the state-owned banks.[42]

NBFIs still constitute only a small segment of Sri Lanka's financial system.[43]

Financial Sector Reforms in Sri Lanka

The financial sector reforms in Sri Lanka can be divided into two phases: the 1977-88period and the post-1989 period. The first phase of reform focused on banking sector reform, interest

[41] For a detailed structure of the Sri Lankan banks, see figure A 10.4.
[42] The two major state-owned banks alone accounted for 35 per cent of banking sector assets, whereas all public banks together held 47 per cent of assets as of June 2007.
[43] Thus the combined share of NBFIs in total financial system assets increased from 3.3 per cent in 2003 to 4.5 per cent in 2006.

rate deregulations, and foreign exchange market liberalization. The reform process was flagged off in 1979 with the removal of operational restrictions on foreign banks. The period also witnessed an expansion of bank branches and, additionally, several new banks and credit institutions were set up in the 1980s. The National Development Bank was instituted in 1979 to supplement the work of the Development Finance Corporation of Ceylon. The Sri Lankan Export Credit Insurance Corporation was set up in the same year for provision of insurance coverage to the export sector. Finally, the Regional Rural Development Board was instituted in 1985. The second phase, by contrast, emphasized issues of stabilization of the financial system and relaxation of the remaining regulations. Emphasis was placed on the development of specialized financial institutions. Most of the new merchant banks, leasing companies, PDs, etc. have been instituted during this latter phase.

Government Securities Market

The G-Sec market in Sri Lanka has undergone significant reforms since the early 1980s. In 1981, a secondary market window was opened for T-bills by the CBSL. Weekly T-bill auctions commenced in 1986[44] and T-Bills with 6 and 12 months maturities were introduced in 1989. The repo and the reverse repo windows for T-bills were introduced by the CBSL in 1993 and 1995, respectively. In the G-sec market, the CBSL acts as an agent of the government, and PDs have been assigned the role of market makers (see below). Banks and NBFIs are the major investors in the G-Sec market that offers both short and long term tradeable debt instruments namely T-Bills (91-364 days) and T-bonds.

T-bonds issuance began on a modest scale in 1997. In 2001, US dollar denominated Sri Lanka Development Bonds were issued and in 2003, the 10-, 15-, and 20- year T-bonds were initiated. In 2004, the Registered Stock and Securities Ordinance (RSSO), the Local Treasury Bills Ordinance (LTBO) and the Monetary Law Act (MLA) were amended to enable the trading of scripless securities. The Scripless Securities Settlement System (SSSS) and Central Depository System (CDS) have already commenced operations. Secondary market transactions in T-bills amounted to Rs 443 billion for outright transactions and Rs[45] 652 billion for repurchase transactions in 2005.

The money market in Sri Lanka consists of the inter-bank call money- and the T-bill market. Commercial banks participate in this market to cover their short-term liquidity need. The stability in the market is supported by the CBSL's Repo and Reverse Repo instruments. The daily inter-bank call money market transactions averaged about Rs.8 billion in 2007.

Corporate Debt Market

The debt market in Sri Lanka consists of the G-Sec market, the commercial paper market, and the corporate bond market. While the size of the bond market in Sri Lanka was 50.8 per cent of its GDP in 2006 the market is highly dominated by the government bonds.

The issuance of corporate bonds in Sri Lanka began in 1996. However, the market remains underdeveloped[46] owing to several factors, such as a lack of institutional investor

[44] Non-competitive bidding of primary auctions was phased out in 1995.
[45] Rupee (Rs), in this section, refers to the Sri Lankan rupee
[46] The corporate debt and debentures turnover in 2006 amounted to a meagre Rs 405.2 million and Rs 2.4 million respectively. Also, long term debt issued by non-financial corporates has been negligible.

base, availability of bank credit at attractive rates for high net worth companies, high cost of debt issues, lack of investor information on the quality of debt, and finally the non-availability of a longer term benchmark yield curve.

With a view to overcoming some of the deficiencies noted above, the Debt Trading System (DEX) was launched at the initiative of the Colombo Stock Exchange (CSE) in March 2004 for trading in both corporate and government securities. At present, 69 corporate debt securities are listed on the CSE and Government Debt is tradeable exclusively through the DEX system.

Equity Market

Securities trading in Sri Lanka dates back to 1896. However, the establishment of a formal stock exchange took place only in 1985 with the incorporation of the CSE. The CSE has two indices, namely, the All Share Price Index and the Milanka Price Index (MPI). The latter was introduced in January 1999 replacing the earlier Sensitive Price Index (SPI). In January 2004, the CSE launched a Total Return Index (TRI) series in addition to the Price Indices. There are 235 listed companies on the CSE and its market capitalization stood at Rs 816 billion as of 25 February 2008.

Recent years have witnessed several attempts to introduce important reforms in the capital market. To regulate the equity market, the Securities and Exchange Commission (SEC) of Sri Lanka was set up in 1987. In 1988, the Colombo Securities Exchange Limited adopted new rules for listed companies replacing the by-laws of the Colombo Brokers Association. To attract foreign capital in the market, several incentives were provided such as abolition of wealth tax on listed companies' shares, and elimination of the 100 per cent transfer tax on share purchases by non-nationals. In the wake of these initiatives, the number of listed companies, market capitalization, turnover, and number of investors increased rapidly. In 1991, the Central Depository System was established to serve as the depository for all securities traded on the Exchange and to assume responsibility for the post trade clearing and settlement of transactions. An OTC market for trading of unlisted shares was introduced in 1996.

Foreign Exchange Market and Liberalization of Foreign Transactions

The foreign exchange market in Sri Lanka consists of the CBSL, the authorized dealers, and the offshore market. In the inter-bank foreign exchange market, transactions are conducted both on spot, and forward basis. Major steps have been undertaken in recent years to liberalize the country's foreign exchange transactions by allowing commercial banks and other authorized dealers to determine the exchange rate freely. The daily average turnover in the inter-bank FX market (including the forward market) was US$ 32 million in 2007.

In accordance with Article VIII of the Articles of Agreement of the IMF, Sri Lanka removed all restrictions on current external transactions on 15 March 1994. As a result, the Sri Lankan rupee is fully convertible on the current account. However, the capital account is far from fully convertible, with several restrictions in place on capital flows.

Market Making

In order to develop and lend depth to the market for government securities, a PD system was installed in 1992. Under the initial arrangement, the CBSL appointed 18 accredited PDs comprising 11 commercial banks and 7 NBFIs to bid for G-Secs at the primary auctions. The PDs have been assigned the major function of (i) participating in the primary market and help create a stable demand for T-bills and T-bonds and (ii) keeping the secondary market liquid by trading in G-Secs.

The PD system has undergone several changes since its inception in 1992.The current PD system was established in 2002 with two types of PDs in operation (9 dedicated PD companies and 3 PD Units of LCBs). All assets of these PDs are collateralized against government securities. To minimize the settlement risk, the SSSS) was introduced in 2004, with the settlement based on a delivery versus payments (DvP) mechanism. PDs have access to the secondary market windows operated by the CBSL to meet any urgent liquidity needs. As of end September 2006, all PDs were maintaining the CAR above 8 per cent and the leveraging level below 20 times which, are the statutory required levels. PDs are subject to regular and continuous surveillance as well as periodic on-site examinations.

6.3 Financial Supervision and Regulation

The CBSL supervises banks and other financial institutions based on a two pronged approach of off-site and on-site surveillance. Under the off-site surveillance system, the financial condition of the LCBs and the LSBs is monitored based on the basis of a few select variables.[47] The off-site surveillance works as an early warning system in identifying significant and critical changes in the financial condition of banks, which might require further investigation and examination. The on-site supervision is a risk based examination process, which focuses on identification of banking risks, the management of these risks and the assessment of adequacy of resources to mitigate these risks, which is supplemented by an examination based on the internationally accepted CAMELS model.

Banks in Sri Lanka adopted Basel I norms in 1993. Since then, risk-based supervisory measures have been further strengthened. Several measures have also been initiated to move over to the New Basel Capital Accord. In 2005, the CBSL increased the minimum capital requirement for commercial banks to Rs2500 million from Rs500 million and for specialised banks (except regional development banks) to Rs1500 million from Rs200 million. In 2006, the CBSL introduced a capital charge for market risk, which requires commercial and specialized banks to maintain a CAR of 10 per cent on account of risk weighted assets for market risk, in addition to the CAR of 10 per cent for credit risk.

Banks in Sri Lanka have been advised to implement Basel II with effect from January 2008. The CBSL has suggested that banks adopt the Standardized Approach for calculating credit and market risks and the basic indicators approach for calculating operational risk. However, the central bank may permit some banks to migrate to an IRB approach after adequate skills and a risk management infrastructure are in place both at the bank and supervisory levels.

[47] The variables are weekly interest rates of deposits and advances, monthly returns on selected financial information, assets and liabilities, statutory liquid assets, quarterly returns on income and expenditure, capital adequacy, non-performing advances, classified advances and provisioning for bad and doubtful advances, investments in shares, interest spreads, half-yearly return on share ownership of the banks, and annual audited financial statements.

In order to maintain financial stability, a Financial System Stability Committee (FSSC) was set up in 2002 under the chairmanship of the Deputy Governor of CBSL with the following objectives:
(i) Assessment of the risks and vulnerabilities that may lead to financial system instabilities or imbalances and to recommend measures and policies to mitigate them to the Governor and the Monetary Board;
(ii) Monitoring the financial system and to submit periodic reports to the Governor and the Monetary Board, recommending policies necessary to promote financial system stability;
(iii) Preparing the Financial System Stability Review.

7. Concluding Remarks

The process of financial liberalization impinged on the US and UK financial systems in the 1970s, on most other advanced countries in the 1980s and on the LDCs only in the last decade. The change has been unevenly distributed across countries, and even though the general direction of movement has been unambiguously forward, the pace has varied between countries owing to intrinsic structural differences rooted in 'contestability' of markets, structure of competition, industrial concentration, and 'financial literacy' in general.
After providing detailed discussions of the likely effects of financial liberalization on economic growth and social welfare, the sections above underline some of the challenges posed for the conduct of monetary policy by the liberalization process. Finally, the chapter assesses the increased vulnerability of an economy to currency and banking crises in the wake of financial liberalization, especially capital account liberalization.

Considerable econometric as well as case study evidence seems to be accumulating on several of these aspects. While the results of different studies show considerable divergence, there is a consensus building up around the following general consequences of financial liberalization.

By and large financial liberalization seems to promote growth in the long run, though the immediate and medium-term consequences can be sharply destabilizing. The immediate aftermath of liberalization is characterized by a boom, followed by a sharp contraction. The boom exceeds the bust in magnitude (and possibly in duration), so that the long-term income benefits are positive (Wyplosz 2001). However, the socio-political consequences of the bust can be serious, so that the overall welfare gains attributable to financial liberalization are questionable. It is important, therefore, to have adequate welfare systems in place before embarking on ambitious liberalization programmes.

The choice of an exchange rate regime becomes crucial in determining an economy's vulnerability to financial crises. Eichengreen (1994), Calvo and Reinhart (2000) etc. **argue** in favour of taking either of the 'extremes', viz. a freely floating exchange rate or a 'hard peg'. Many development economists, however, feel that excessive exchange rate volatility associated with a free float erodes trade competitiveness and entails unnecessarily large hedging exposures. Hard pegs, on the other hand, are extremely costly and it is difficult to sustain their credibility for long. Perhaps the 'soft middle' option of a 'managed float' represents some kind of a golden mean option.

The sequencing of reforms is extremely important to the success of liberalization. The sequencing strategy advocated by McKinnon (1991), in which the domestic goods market is

liberalized first, followed by opening up of the trade sector, with financial liberalization and capital account liberalization bringing up the rear, seems possibly to be the best, and the experience of most developed countries' (especially in Europe) seems to be in conformity with this strategy.

> Recent studies such as those by Rodrik et al. (2002), Alcala and Ciccone (2004), and Kaufmann et al. (2007) clearly indicate the importance of institutional features such as corruption, rule of law, and general governance issues (such as political accountability, quality of bureaucracy, etc.) in determining whether the outcomes of liberalization in general (and financial liberalization in particular) would be beneficial or otherwise. This could be an important part of the explanation as to why liberalization usually succeeds in the developed countries but often fails in the developing world. It also throws up in retrospect the fallacy implicit in the reform advocacy of the 1990s which urged developing countries with weak institutions to undertake economic reforms, under the implicit assurance that political progress and good governance would follow as a consequence.

This chapter, though no more than an overview of the financial liberalization process under way in four South Asian countries, unambiguously indicates that a considerable degree of liberalization has already occurred in this region, most of which seems irreversible. It is also interesting to stress that financial liberalization usually races ahead of liberalization in the real sector, mainly because it meets with far less political resistance than real sector reforms. The issue of 'unbalanced reforms' with a highly reformed financial sector co-existing with a largely unreformed real sector has hardly attracted much attention in either the theoretical literature or in policy circles. But the South Asian economies currently constitute prime examples of such 'unbalanced reforms'.

While it is too early to applaud the South Asian experience of financial liberalization as an outstanding success (or for that matter, to cynically dismiss it as a failure), our discussion points to the imperative of a much more cautious approach than the one hitherto followed. In particular, apart from the general issues just discussed above, there are at least five others that deserve close attention in view of some of the factors that are specific to the South Asian context. These are (i) sequencing of reforms and a redressal of the 'unbalanced' nature of the reforms process referred to above; (ii) regulation of large financial conglomerates, especially the banks insurance combines; (iii) embedding the financial reforms within the context of the formal-informal financial sector linkages; (iv) paying special attention in the reforms process to the needs of microfinance and rural credit; and (v) devising countervailing safeguards to insulate the vulnerable sections of society from some of the inequalizing and destabilizing consequences of the financial liberalization process noted above.

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Appendix

Figure 1: Structure of Indian Banking

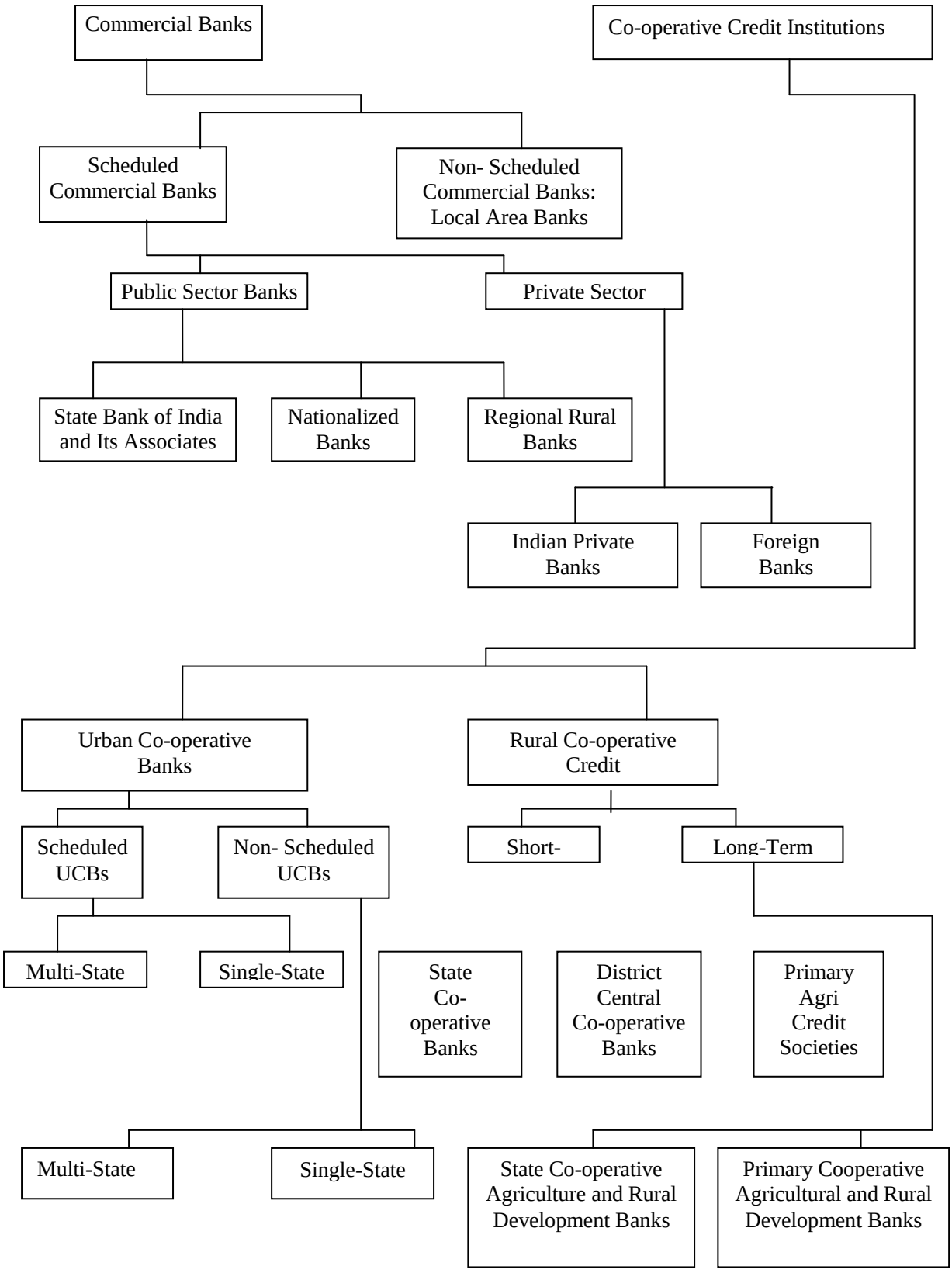

Figure 2: Structure of Pakistani Banking

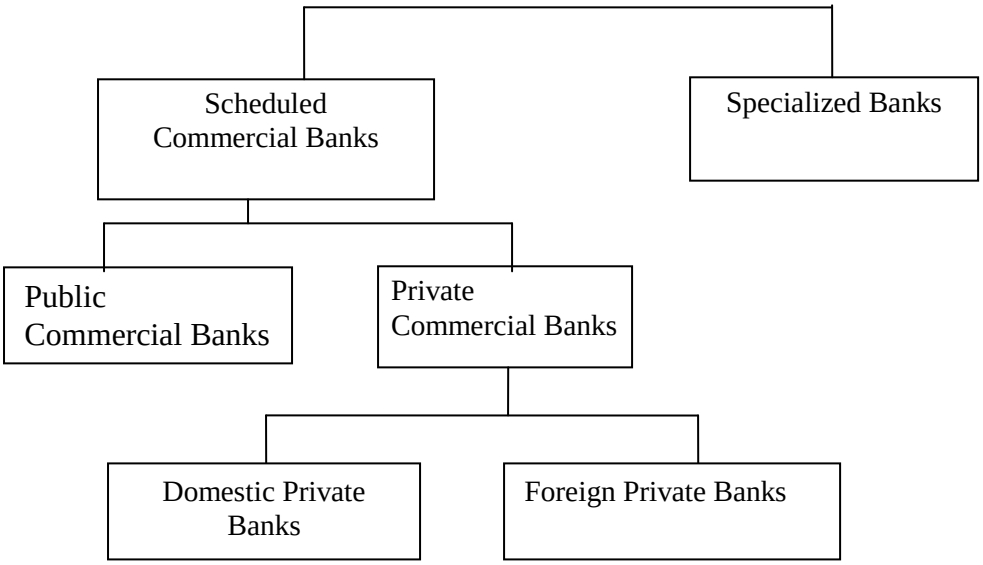

Figure 3: Structure of Bangladeshi Banking

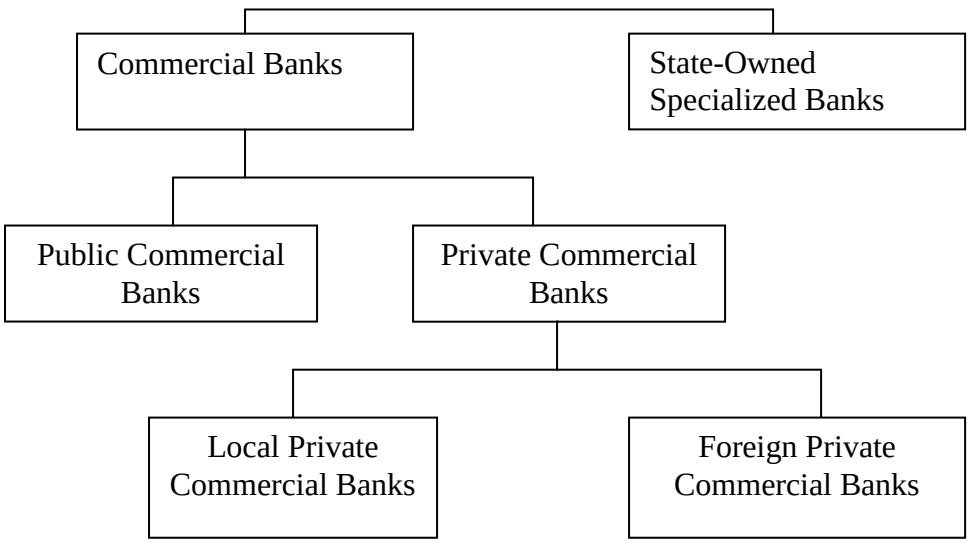

Figure 4: Structure of Sri Lankan Banking