X REGULATORY AND SUPERVISORY CHALLENGES IN BANKING

10.1 The banking sector globally has undergone rapid transformation in the recent decades driven by the forces of globalisation and the advent of technology. The extensive framework of banking regulation, which was put in place in many countries in the 1930s, and which continued till the 1950s, involving controls on interest rates, capital movement, composition of portfolios and the segmentation of financial institutions, was eased considerably in the 1980s on the grounds that it would lead to a more efficient financial system. At the same time, it was recognised that the greater degree of freedom allowed to financial institutions as a result of deregulation needed to be accompanied by wider and stronger powers for the supervisory authorities. The changes in the nature of banking exposures, the growing complexity of transactions and the expansion of off-balance sheet business, particularly derivatives, also necessitated the strengthening of the existing capital requirements as well as banks' internal risk management systems. A relook at the way banks were regulated was also motivated by the number and magnitude of bank failures in the 1980s and the early 1990s, which were attributed by many observers to the moral hazard problems and the perverse incentive schemes (Alworth and Bhattacharya, 1998).

10.2 There are several reasons for the assumed uniqueness of banks and the need for their heavy regulation. Banks are critical for mobilising public savings and for deploying them to provide safety and return to the savers. The leveraging capacity of banks (more than ten to one) puts them in control of very large volume of public funds. In a sense, therefore, they act as trustees and as such must be 'fit and proper' for the deployment of funds entrusted to them. Banks also administer the payments system. The public confidence in individual banks and the banking system is, thus, crucial to a nation's economy. The speed with which a bank under a run can collapse is incomparable with any other organisation. For a developing economy like India, there is also much less tolerance for downside risk among depositors many of whom place their life savings with the banks. Hence, from a moral, social, political and human angle, there is a more onerous responsibility on the regulator (Mohan, 2004). They have to be effectively regulated and supervised in order to maintain public confidence in the banking system and depositors have to be protected from excessive risk-taking by banks, especially in view of information asymmetry (Mohan, 2007).

10.3 From the standpoint of the regulatory authorities, the uniqueness of banks arises from their role as intermediaries in creating liquid liabilities in the face of relatively illiquid individual assets and liquidity risks on both sides of their balance sheets. Some of the challenges that banking regulators have faced increasingly beginning the early 1980s arose from (i) deregulation of economic systems which produced riskier financial systems, partly resulting from greater competition among financial institutions; (ii) wave of financial innovation particularly in the area of derivatives; and (iii) a much more pronounced internationalisation of financial flows and a greater integration of financial markets. These challenges raised several doubts about the adequacy of banks' risk management procedures and contributed to several changes in the regulatory framework from time to time.

10.4 Supervisors have been facing an ever growing challenge to devise appropriate regulatory and supervisory structures for a financial industry that is in a constant state of change. In line with the developments in the banking system, regulators all over the world have employed new methods and approaches to achieve the basic objectives of regulation of banks. New thinking on banking regulation has emerged on several fronts. Among the important trends have been, and continue to be (i) a move away from regulation and towards supervision; and (ii) a move away from compliance with specific portfolio constraints and towards an assessment of whether the overall management of a financial firm's business is being prudently conducted. At the same time, greater attention is being given to disclosures, to allow markets and counterparties to better control excessive risk-taking. There are several reasons why old-style regulation is being adapted to the new realities of the marketplace. In the first place, the rapid development of new instruments and methods of risk management make mechanical application of balance sheet ratios inappropriate. Second, regulation inevitably creates incentives for financial engineers

to find a way around the rules. More generally, regulation is too blunt an instrument to capture the technicalities and the sophistication required to control risk in a complex financial organisation. Supervisors have to understand all aspects of a financial firm's business, and to foresee the multiple sources of risk it is likely to confront.

10.5 A significant change is the recognition of the role that market discipline can play to augment or, to a certain degree, replace government or regulators' oversight of the financial sector. The reason why market discipline is needed is that banks are prone to engage in behaviour that may exhibit moral hazard. As a result, banks may engage in excessive risk-taking. Banks collect deposits and invest these funds in risky assets. Market discipline is a mechanism that can potentially curb the incentive to take excessive risk by making risk-taking more costly for banks. Another trend that has attracted considerable attention in recent years is whether the financial supervision should be hived off from the central bank and entrusted to a separate supervisor. The recent events of severe market and regulatory failures in the US and Europe, where competing models of regulatory organisations are in place, point to the need for reform in both the models. While the single regulator model of the UK was steadily finding wider acceptance across the globe, the Northern Rock crisis has shown how information asymmetry and communication gap between the central bank, *i.e.*, the lender of the last resort, and the manager of financial stability, and the integrated financial regulator could be an inherent weakness of this type of financial supervision.

10.6 The regulatory and supervisory framework for banks in India has undergone considerable transformation during the last one and half decades in line with changes in the operating environment and international norms/practices relating to regulation and supervision of banks. The focus of regulation has shifted from micro to macro and prudential elements with a view to strengthening the banking sector and providing them with greater operational flexibility. To meet challenges arising from domestic and cross-border integration among financial intermediaries, financial innovations and technological advancements and the convergence of activities among providers of various financial services, appropriate mechanisms have been put in place. The latest trends in supervision of banks across the globe are also being keenly observed with a view to judging their relevance for India.

10.7 This chapter traces the recent thinking on the various regulatory and supervisory issues for banks in the global context and delineates the various regulatory and supervisory challenges faced by the Reserve Bank. The chapter is divided into seven sections. Following introduction, Section II presents the theory behind banking sector regulation. Section III details the recent developments in supervisory practices in the global context. The extant regulatory and supervisory framework in India is discussed in section IV. Section V delves into the regulatory and supervisory issues/challenges that have arisen in the Indian context. In the light of global and domestic developments, Section VI makes suggestions with a view to further strengthening the regulation and supervision in India. The chapter ends with the concluding observations in Section VII.

II. THEORY OF BANKING REGULATION

10.8 The basic rationale for bank regulation can be traced to the special role that banks play in an economic system, *i.e.*, as creators of liquidity. Banks play a unique and central role in an economy in general and in the financial system in particular. Banks are depositories of public money, which is then used by them to obtain returns by undertaking risk in lending and investment activities. Since they are highly leveraged, depositors' interests have to be protected though prudential regulation. Effectively, banks are special since they act as trustees of public money placed with them. Through its lending and deposit functions, the banking system influences the aggregate money supply and is, thus, an important link in the monetary transmission mechanism. Apart from regulation of banks from the monetary management viewpoint, traditionally the regulation of banks was also considered necessary for the protection of depositors, reduction of asymmetry of information and to ensure sound development of banking. Unsophisticated depositors of banks may not be able to monitor banks effectively due to asymmetric information. It is argued that while depositors could make some judgment about the condition of banks, the tasks would still be difficult and costly. Even if a depositor could make an assessment of the current value of a bank's assets *vis-à-vis* its liabilities, the condition could change as the banking business is dynamic with the banks continuously altering their asset holdings and taking on new depositors and creditors. In fact, in banking regulation, the objective of monetary stability has also been linked generally with the goal of depositor protection. It is argued that banking regulation should also provide a stable

framework for individuals and businesses to conduct monetary transactions.

10.9 Banks have been affected by problems such as bank runs or failures from time to time. The main causes of these problems have been poor credit control, connected lending, insufficient liquidity and capital, which, in turn, occur due to poor internal governance (Goodhart, *et al.*, 1998). Subsequently, when bank crises became widespread, financial regulation by authorities was considered critical to prevent systemic risk and avoid financial crises - as banks played a major role in the payments and settlement systems in almost all economies. Thus, the two main justifications for regulating banks are the inability of depositors to monitor banks and the risk of a systemic crisis (Santos, 2000).

10.10 Contemporary banking theory argues that financial intermediaries such as banks emerge endogenously to solve financial market imperfections that arise from various types of asymmetric information problems. These institutions arise to exploit such market information imperfections for economic gain. Banks, thus, emerge to provide the services of screening of potential borrowers, monitoring customers' actions and efforts, providing liquidity risk insurance and creating safe assets. However, optimality requires that the market provides banks with the right incentives to do the above functions. It is argued that with incorrect incentives, market failures will occur in the absence of regulation of individual banks and the banking system as a whole. It is the emergence of new market failures which justifies banking regulation (Freixas and Santomero, 2002).

10.11 There are several aspects that banking regulation is not intended to accomplish. First, preventing the failure of individual banks is not a primary focus of banking regulation, subject to the condition that depositors are protected and adequate banking services are maintained. Second, bank regulation should not substitute banker's decisions in operating a bank by government decisions. Finally, banking regulation should not favour certain groups over others. Banks also should not be protected from competition from other institutions.

10.12 Various theoretical models have been built to explain the framework of banking regulation that broadly encompasses various features: existence of a government safety net, restrictions on bank asset holdings, capital requirements, assessment of risk management framework, disclosure requirements, consumer protection and prudential supervision. Economic theory provides conflicting views on the need for and the effect of regulations on entry into the banking business. Some argue that effective screening of bank entry can promote stability. Others stress that banks with monopolistic power possess greater franchise value, which enhances prudent risk-taking behavior (Keeley, 1990). The opponents of entry restrictions, however, stress the beneficial effects of competition and the harmful effects of restricting entry (Shleifer and Vishny, 1998).

10.13 Countries regulate the activities that banks can undertake. However, there is no consensus in theory on what should be the right mix of the activities that a bank can perform. There are five main theoretical reasons for restricting bank activities and banking-commerce links. First, conflicts of interest may arise when banks engage in such diverse activities as securities underwriting, insurance underwriting, and real estate investment. Such banks, for example, may attempt to "dump" securities on ill-informed investors to assist firms with outstanding loans (John, *et al.*, 1994; Merrick and Saunders, 1985). Second, to the extent that moral hazard encourages riskier behaviour, banks will have more opportunities to increase risk if allowed to engage in a broader range of activities (Boyd, *et al.*, 1998). Third, complex banks are difficult to monitor. Fourth, such banks may become so politically and economically powerful that they become "too big to discipline." Finally, large financial conglomerates may reduce competition and efficiency. According to these arguments, governments can improve banking by restricting bank activities. Further, in a country with generous deposit insurance that intensifies moral hazard problems, broad banking powers provide excessive opportunities for risk taking (Boyd, *et al.*, 1998). Thus, it is argued that restrictions on bank activities enhance social welfare in countries with generous deposit insurance.

10.14 There are alternative theoretical reasons for allowing banks to engage in a broad range of activities, however. First, fewer regulatory restrictions permit the exploitation of economies of scale and scope (Claessens and Klingebiel, 2000). Second, fewer regulatory restrictions may increase the franchise value of banks and thereby augment incentives for more prudent behaviour. Lastly, broader activities may enable banks to diversify income streams and thereby create more stable banks.

10.15 In order to protect the interests of depositors, many countries have explicit deposit insurance

schemes. Deposit insurance schemes come at a cost, however. They may encourage excessive risk-taking behaviour, which some believe offsets any stabilisation benefits. Yet, many contend that regulation and supervision can control the moral hazard problem by designing an insurance scheme that encompasses appropriate coverage limits, scope of coverage, coinsurance, funding, premia structure, management and membership requirements. However, the impact of deposit insurance can vary with the institutional environment that exists in a country. If the rule of law, bank regulation and supervision, or the information environment is sufficiently weak, deposit insurance which reduces market discipline could so weaken monitoring of banks that it would make the banking system more vulnerable to crises (Demirguc-Kunt and Kane, 2002).

10.16 Some theoretical models stress the advantages of granting broad powers to supervisors for several reasons. First, banks are costly and difficult to be monitored by the depositors/investors. This leads to too little monitoring of banks, which implies sub-optimal performance and stability. Official supervision can ameliorate this market failure. Second, because of informational asymmetries, banks are prone to contagious and socially costly bank runs. Supervision in such a situation serves a socially efficient role. Third, many countries choose to adopt deposit insurance schemes. This situation (i) creates incentives for excessive risk-taking by banks; and (ii) reduces the incentives for depositors to monitor banks. Strong official supervision under such circumstances can help prevent banks from engaging in excessive risk-taking behavior and thus improve bank development, performance and stability.

10.17 Another purpose of regulation is to create a framework that encourages efficiency and competition amongst banks. Competition and efficiency depend, *inter alia*, on the number of banks operating in a market, the freedom of other banks to enter and compete and the ability of banks to achieve an appropriate size for serving their customers. The objective of customer protection is generally considered consistent with good banking principles. It is argued that disclosures and informed customers would be of benefit to bankers offering competitive services.

10.18 On the flip side, powerful supervisors may exert a negative influence on bank performance. Powerful supervisors may use their powers to benefit favoured constituents, attract campaign donations, and extract bribes (Shleifer and Vishny, 1998; Djankov, *et al.*, 2002; and Quintyn and Taylor, 2004). Under these circumstances, powerful supervision will be positively related to corruption and will not improve bank development, performance and stability. From a different perspective, Kane (1990) and Boot and Thakor (1993) focus on the agency problem between tax payers and bank supervisors. In particular, rather than focusing on political influence, Boot and Thakor (1993) model the behaviour of a self-interested bank supervisor when there is uncertainty about the supervisor's ability to monitor banks. Under these conditions, they show that supervisors may undertake socially sub-optimal actions. Thus, depending on the incentives facing bank supervisors and the ability of tax payers to monitor supervision, greater supervisory power could hinder bank operations.

10.19 It is important to bear in mind that while financial institutions do benefit from an appropriate regulatory regime, there is not much evidence that the existence of a regulatory jurisdiction makes institutions stronger and less prone to shocks (Fiebig, 2001). Some economists claim that there is no evidence that supervision works (Barth, *et al.*, 2004). Instead, they argue that regulations that promote market monitoring are associated with deeper financial systems and less likelihood of crises.

10.20 Some advocate more reliance on private-sector monitoring, expressing misgivings with official supervision of banks. They argue that a greater role for market discipline would act as a restraining factor for imprudent behavior by both managers and consumers of banking products. This model is, however, not widely followed. The banking sector is still considered far too important, socially and politically, to be left entirely to the working of the market mechanism. However, greater emphasis is being laid on market discipline, although there are limitations of private monitoring especially in emerging market economies. Supervisory agencies may also encourage private monitoring. Some supervisory agencies require banks to produce accurate, comprehensive and consolidated information on the full range of their activities and risk-management procedures. Some countries even make bank directors legally liable if information is erroneous or misleading. Also, some countries credibly impose a "no deposit insurance" policy to stimulate private monitoring. Countries with poorly developed capital markets, accounting standards, and legal systems may not be able to rely effectively on private monitoring. Furthermore, the complexity and opacity of banks may make private sector monitoring difficult

even in the most developed economies. From this perspective, therefore, excessive reliance on private monitoring may lead to the exploitation of depositors and poor bank performance.

10.21 The recent events in global financial markets in the aftermath of US sub-prime crisis have evoked rethinking on several regulatory and supervisory aspects of the banking industry. For instance, it has become important for the UK to consider an effective regime for shutting down failing banks and overhauling of its deposit insurance scheme. In the US, an important issue that has emerged is the streamlining of the supervisory system to overcome disadvantages of a fragmented regulatory authority, and extension of effective regulation of non-banking financial intermediaries. A great amount of attention is also being placed on the effectiveness of policies that are in place to manage any emergency such as deposit insurance and central bank funding. Another area of debate centres on whether regulatory regimes should be based on rules or principles. The supporters of a more formulaic approach believe that a system based on principles gives banks enough room to get around their obligations. On the other hand, those who support principle-based regulation argue that precise rules are inflexible and can be easily circumvented. Perhaps, a blend of the two approaches is required. Some observers are also questioning whether it was right to repeal the Glass-Steagall Act, which separated commercial and investment banking, though it is unclear how this division would have prevented the crisis (The Economist, 2008).

III. REGULATORY AND SUPERVISORY PRACTICES – RECENT DEVELOPMENTS

10.22 There has been new thinking on some of the aspects of banking regulation and supervision due to the changing nature of banking operations. The most basic forces affecting the shape of the banking sector are the same as those affecting the rest of the economy. First, the quickening pace of technological innovation, especially in data processing and communication, has had particularly profound effect on the financial sector. The financial sector is information intensive, and most of the innovations in recent years have been in the area of processing and transmission of information. Second, the growing acceptance of market processes as a basic determinant of resource allocation led to deregulation of the financial sector. The financial sector was among the most heavily regulated, with most countries having, until as recently as two decades ago, extensive controls on prices, entry to the industry, competitive practices, and portfolio composition. The impact of deregulation and innovation on banking and the rest of the financial sector have been profound. The range of products and services have widened markedly. Intermediation costs have declined enormously. Financial transactions have grown rapidly in relation to GDP. All of this has brought considerable benefits through more efficient origination and allocation of capital, greater availability of capital for investment and greater efficiency in the management of risks, among others.

10.23 As these fundamental drivers of change have brought about a major transformation in the way banks are run, the way they are structured and the range of products they offer, they have important implications for supervisory and regulatory authorities. Some of the recent trends include globalisation of banking operations and market integration, expansion in the scale of activities and proliferation of financial conglomerates and increasing complexity of financial products in line with financial innovations, among others.

10.24 First, globalisation is an important trend in the banking industry. A combination of liberalisation of financial markets over the past two decades and business opportunities in rapidly growing economies have led to an increasing proportion of global bank activities in foreign countries. This is particularly the case in the securities markets, although there have been other areas such as retail where the presence of global banks in local markets continues to grow. For the financial sector, globalisation means the decline in the barriers between different financial markets. Capital can flow more easily to locations where it receives the best reward; institutions have easier access to foreign markets; and boundaries between different kinds of financial activities are becoming blurred. To some extent, this is happening because financial engineering has rendered previous administrative controls obsolete; and to some extent it represents a willing acceptance of a more free market philosophy. The growing international nature of banking activities is clearly discernible from indicators such as (i) increase in cross-border bank lending as a proportion of total bank lending; (ii) increase in the proportion of banking assets held worldwide; and (iii) growing share of international profits in total profits of banks. In general, foreign banks operating in emerging markets bring expertise and financial resources that might not otherwise be available. They can also introduce more sophisticated risk

management tools that may have been developed for the larger financial group. While these benefits are significant, the scale of foreign banks' presence can have implications for host countries. As finance is becoming increasingly global and integrated, prudential supervision has to adapt to that reality.

10.25 Second, sectoral distinctions are becoming blurred. A few decades earlier, most financial intermediation was conducted through banks, with insurance companies and investment vehicles having well-defined roles. However, many different types of institutions, including non-financial firms, are now involved in both wholesale and retail markets. Importantly, the ability to deconstruct and re-combine risks has enabled financial intermediaries to expand and compete effectively in sectors beyond their own. While this trend has emerged under the regulatory umbrella or framework that provides the greatest benefit and flexibility, the supervisors have to guard against potential system-wide reduction in capital adequacy or undue risk concentration resulting from expansion into new areas.

10.26 Third, banks as well as securities firms are actively involved in origination, securitisation and active management of credit exposures. Advances in the processing of information have permitted the independent pricing of risk factors that were previously bundled together in the same instrument. The shift to capital market-based distribution of risk has been accompanied by increased velocity in intermediation, aided by new technologies that allow for greater automation and standardisation. The greater role of capital markets in intermediation also implies that many of the risks once held by banks are now held by other types of market participants. The greater reliance on the capital markets in credit origination and distribution has also served to unlock the creative potential of market participants. At the same time, the intensification of financial intermediation has given rise to an explosion in the demand for hedging (and position-taking) instruments. Nevertheless, the new financial instruments have enormously improved the technology of risk-management. The downside is that these same instruments, if not properly understood and used, increase the potential for loss, whether resulting from inadequate understanding or deliberate leveraged bets.

10.27 Fourth, financial systems appear to have become more pro-cyclical than before, capable of amplifying credit growth and leveraging market positions more intensely than before. In essence, the "marginal" risk that financial actors willingly engage is greater than before. To a degree, this is the result of innovations in financial technology, including the process of securitisation, which allow risks to be better distributed and managed. The more widespread use and trading of collateral is also a factor. It also reflects the intensification of competition, and perhaps a view among firms that they will be able to get out of risky engagements before they turn sour. Of course, pro-cyclicality works in both directions. Once the downturn sets in, the financial system seems more prone to liquidity erosions and reduced credit supply than in previous episodes of stress.

10.28 Finally, greatly increased speed of developments in the financial sector. The speed of transmission of news in the financial sector has always been high relative to other sectors. These days, market communication and execution can be almost instantaneous. The market players' judgement of strategic opportunities in their environment and their moves to take advantage of them have also speeded up due to new and cheaper technology as well as deregulation. Business models get adopted and discarded more quickly. This will test regulators and supervisors for whom the challenge is to create rules of the game that are robust.

10.29 The above trends in the financial sector have important implications for the focus of regulation and supervision and the way in which regulatory and supervisory responsibilities are allocated. Some of these issues are - the location of institutional responsibility for supervision; appropriate regulatory structure; the increased reliance on market discipline; and the principle-based approach *vis-à-vis* rule-based approach.

Separation of Supervision from Central Bank

10.30 The question of where authority for the supervision of banks and other financial institutions should reside has become the subject of intense debate. In many countries, responsibility for banking supervision rests with the central bank, while supervision over other financial institutions is typically vested with other agencies. However, in recent years, there are several cases of countries moving away from this model.

10.31 Although the early central banks were established primarily to finance commerce, foster growth of the financial systems and to bring uniformity in the note issue, central banks in several countries in the 20th century, notably the US, were founded to restore confidence in the banking systems after

repeated bank failures. As the incidence of banking crises started increasing, the statutory regulation of banks was considered necessary for the protection of depositors, reduction in asymmetry of information and for ensuring sound development of banking. In the 19th century, central banks had started focusing their attention on ensuring financial stability and their role had increasingly come to eliminate financial crises. The Bank of England used to adjust the discount rate to avoid the effects of crises and this technique was used by other European central banks as well. In the United States, a series of banking crises between 1836 and 1914 had led to the establishment of the Federal Reserve System. The experience of the Great Depression had a profound effect on banking regulation in several countries and commercial banks were progressively brought under the regulation of central banks. Thus, the prevention of systemic risk manifested by crises became the basic reason for central bank's involvement with financial regulation and supervision.

10.32 The experience of some other countries in delegating the responsibility of bank regulation was totally different. Despite the occurrence of banking crises and the need for central bank's intervention in resolving the crises, some countries established a separate regulatory authority outside the central bank to supervise the banking system, often several years before or after the creation of the central bank. The Canadian Government established the Office of the Inspector General of Banks in 1925 after the collapse of the Home Bank. The Bank of Canada was created nine years later (Georges, 2003). Canada's experience was not unique. A number of other countries, including Chile, Mexico, Peru, and the Scandinavian countries developed central banks and bank regulators completely separately. Thus, the experiences of countries in creating an appropriate structure and entrusting the responsibility of bank regulation and supervision vary considerably, although the basic motive has been to maintain systemic stability.

10.33 The literature is split on the relative advantages and disadvantages of the central bank being a bank supervisor (Box X.1). The most strongly emphasised argument in favour of assigning supervisory responsibility to the central bank is that as a bank supervisor, the central bank will have first-hand knowledge of the condition and performance of banks. The central bank's supervisory role makes it easier to get advance information from banks. This, in turn, can help it identify and respond to the emergence of a systemic problem in a timely manner. Furthermore, to the extent that the central bank acts as a lender of the last resort (LoLR), it may be desirable that some regulatory and supervisory functions remain with central bank in order to limit moral hazard incentives and to have an intimate knowledge of the condition of banks, which can be acquired only through its participation in the supervisory process. This argument assumes that it is not possible for a third party, responsible for bank supervision, to transfer information effectively to the LoLR, particularly during financial instability. In addition, contrary to the common view that monetary policy and policies toward financial stability should be seen separately, they are inseparable. At the very least, there is a strong case for better co-ordination of monetary policy and policies toward financial stability. An important lesson of the sub-prime crisis is that asset prices alone are unlikely to be sufficient to summarise the conditions of intermediaries. Balance sheet dynamics provide information on key components of GDP and the resilience of the financial system (Adrian and Shin, 2008). Those pointing to the disadvantages of assigning bank supervision to the central bank stress the possible conflict of interest between supervisory responsibilities and responsibility for monetary policy. However, such a conflict of interest may also exist even when central bank is not the regulator and supervisor for banks as the central bank will always endeavour to maintain the stability of the financial system. The conflict could become particularly acute during an economic downturn in that the central bank may be tempted to pursue a too-loose monetary policy to avoid adverse effects on bank earnings and credit quality, and/or encourage banks to extend credit more liberally than warranted based on credit quality conditions to complement an expansionary monetary policy.

10.34 In recent years, there has been a trend of passing over banking regulation from the central banks to other agencies. Under this arrangement, central banks are assigned the task of monetary policy and also remain lenders of last resort. This phenomenon has occurred in a few countries, notably Great Britain, Japan and South Korea. Countries which belong to the European Monetary Union (EMU) have *de facto* adopted this system since monetary policy is now carried out at the federal level (the European Central Bank), while banking supervision is undertaken at the national level.

10.35 In the UK, until the Fringe Banking Crisis in 1974-75, the Bank of England restricted its direct

Box X.1
Banking Supervision and the Central Bank

Combining the monetary and supervisory functions is best attributed to the central bank's concern for the 'systemic stability' of the financial system and the protection of the payments system. On the grounds of moral hazard, it is appropriate to provide 'lender of last resort' (LoLR) facilities only when a bank is illiquid, but not insolvent (*e.g.*, Bagehot, 1873). Hence, if the central bank supervises an institution, it may know more precisely whether an institution asking for credit is insolvent or just illiquid. However, regardless of the source of problems, the central bank may feel compelled to support failing participants to avoid systemic 'knock on' effects. Hence, to the extent that the central bank continues to operate the payments system and act as a LoLR, it is likely that it will want to maintain some regulatory and supervisory functions in order to limit moral hazard incentives and to have an intimate knowledge of the condition of banks, which can be acquired only through its participation in the supervisory process. This argument assumes that it is not possible for a third party, responsible for bank supervision, to transfer information effectively to the LoLR. However, it seems more plausible during periods of financial instability, since the speed and the degree with which the condition of an institution deteriorates is significantly higher during periods of financial instability. Moreover, it is in 'bad' times that institutions are more likely to 'cook' their books and hide their true condition. Hence, under these circumstances, direct supervision could help deliver the essential information on time. Using a cross-country micro dataset, it was found that countries where central banks were involved in supervision had, on average, fewer bank failures (Goodhart and Schoenmaker, 1995). It is also argued that banking supervisory information (early warning of problems with non-performing loans or changes in the lending pattern of banks) may improve the accuracy of macroeconomic forecasts and thus help the central bank to conduct monetary policy more effectively (Bernanke and Gertler, 1995). The central bank's involvement in supervision does not necessarily weaken its stance on monetary policy as a central bank's inflation performance and its role in supervision are two, more or less, separate issues.

On the other hand, the combination of control of monetary policy and the role of LoLR at the central bank has been criticised on the grounds that it raises inflationary concerns. A central bank committed to price stability will sterilise the injection of liquidity necessary for the stability of the system in the event of crisis so that there is no undesired increase in the money supply. If the LoLR function and supervision are combined, an intervention as LoLR may give rise to confusion in the expectations of the private sector regarding the central bank's monetary policy stance. Concerns have also been expressed that a conflict of interest may arise between the reputation of the central bank as guarantor of currency and financial stability. For example, concern for the reputation of the central bank as supervisor may encourage an excessive use of the LoLR facility so that bank crises do not put its supervisory capacity in question. It has been argued that the reputation of the central bank is more likely to suffer, than to benefit, from bank supervision.

A more general point is that the cyclical effects of micro (regulatory) and macro (monetary) policy tend to be in conflict. Monetary policy is usually countercyclical, while the effects of regulation and supervision tend to be procyclical, offsetting to some extent the objectives of monetary policy. In particular, during periods of economic slowdown, the financial condition of banks usually deteriorates. In this case, the bank's supervisor steps in and applies pressure on the institution to improve its condition. However, the bank's implementation of supervisory requirements results in even tighter credit during an economic recession. Following this line of argument, one might expect the central bank to use its supervisory role to complement monetary policy, *i.e.,* to be less strict in supervision when monetary policy is expansionary and *vice versa* (Goodhart and Schoenmaker, 1993).

References:

1. Ayadi, Rym and Pujals, Georges. 2004. "Banking Consolidation in the European Union, Overview and Prospects". *Research Report in Finance and Banking*, Centre for European Policy Studies (CEPS), No.34, April.
2. Bagehot, W. 1873. *Lombard Street: A Description of the Money Market*, London.
3. Bernanke, B. S. and Gertler, M. L. 1995. "Inside the Black Box: The Credit Channel of Monetary Policy Transmission". *Journal of Economic Perspectives*, Vol. 9 (Fall), 27-48.
4. Di Noia, C. and Di Giorgio, G. 1999. "Should bank supervision and monetary policy tasks be given to different agencies?". *International Finance*, Vol. 2, Issue 3, 361-378, November.
5. Goodhart, C.A.E and D. Schoenmaker. 1993. "Institutional Seperation between Supervisory and Monetary Agencies." *LSE Financial Markets Group Special Paper,* No. 52.
6. Goodhart, C.A.E and D. Schoenmaker. 1995. "Should the Functions of Monetary Policy and Banking Supervision be Separated?". *Oxford Economic Papers*, 47: 539-560.
7. Goodhart, A. E. Charles. 2000. "The organizational structure of Banking Supervision." *Occasional Paper*, No. 1, Basel Switzerland, Financial Stability Institute (FSI), November.
8. Ioannidou, Vasso P. 2003. "Does Monetary Policy affect the Central Bank's role in Bank Supervision?". *Journal of Financial Intermediation,* 14: 58-85, September.

supervision to a small number of merchant banks (the Accepting Houses) and to the discount market, stemming from the Bank's own credit exposures. The Banking Act, 1976 increased the formal role of the Bank of England in supervision and regulation of the banking system. The supervisory function was carried out by one single senior official, the Principal of the Discount Office, with a handful of staff. So, historically, the conduct of banking supervision did not, in practice, play a really large, or central, role in Central Bank activities because the structure both reduced the need for such an exercise and allowed it to be largely achieved through self-regulation (though this may have been particularly so in the UK, and less representative of other countries) (Goodhart, 2000b).

10.36 In 1997, the newly elected Labour Government in the United Kingdom transferred responsibility for the prudential supervision of commercial banks from the Bank of England to a newly established body, the Financial Services Authority (FSA). The FSA was to take on responsibility for, and combine, both the prudential and the conduct of business supervision for virtually all financial institutions (banks of all kinds, finance houses, mutual savings institutions, insurance companies, *etc.*) and financial markets.

10.37 The main driving forces behind the separation of supervision was the changing, more blurred, structure of the financial system, and continuing concerns with conflicts of interest. As the dividing lines between differing kinds of financial institutions became increasingly fuzzy (*e.g.,* universal banks), continuing banking supervision by the central bank led to both inefficient overlap between supervisory bodies, and a potential creep of central bank safety net and other responsibilities into ever-widening areas. With the accompanying trend towards central bank operational independence in monetary policy, continued central bank supervisory authority, it was believed, would enhance concerns about potential conflicts of interest, and raise issues about the limits of delegated powers to a non-elected body.

10.38 The U.S. Federal Reserve Board still plays a major role in banking supervision. In the United States, the central bank became an additional bank supervisory authority after multiple supervisory authorities had already been established. Only three countries (Italy, Netherlands and Spain) of the thirteen countries representing the Basel Committee have the central banks as the only authority responsible for bank supervision. Germany moved to a single supervisory agency, *viz.*, German Federal Financial supervisory Authority (BaFin), in May 2002 to supervise banking, insurance and securities firms. However, Deutsche Bundesbank, the central bank, continues to play a significant role in bank supervision. France, Italy and Spain have separate supervisors for banks, insurance companies and securities firms. In France, the Commission Bancaire supervises all credit institutions. The Commission, however, benefits from a considerable synergy with the activities of the central bank. In Italy and Spain, bank supervision is with the central bank. Belgium moved to a single supervisory system in January 2004 with the responsibility of supervising banks, insurance companies and securities firms resting with an autonomous public institution outside the central bank. China established a new bank supervisory authority in early 2004, but the central bank, which had been the sole authority, retained some limited supervisory responsibility (Barth, *et al.*, 2004). A survey of 198 countries reveals that banking supervision is outside the central banks in 52 countries. These countries, among others, include Australia, Austria, Belgium, Canada, Denmark, Hungary, Japan, Mexico, Panama, Turkey, United Kingdom and Venezuela (Central Banking Publication, 2008).

10.39 The recent episode of liquidity crisis in the Northern Rock, UK in July 2007 in the aftermath of US sub-prime crisis has, however, raised concerns about the effectiveness of coordination among the central bank as LoLR, the Treasury, and the FSA, and also the desirability of having supervision outside the central bank (Box X.2).

10.40 The UK, after supervisory functions were entrusted to a separate authority, adopted a more formalised approach based on the memorandum of understanding of the Tripartite Agreement between the HM Treasury, the Bank of England and the FSA, which establishes a framework for co-operation among them to work together towards the common objective of financial stability. It clearly sets out the role of each authority based on the principles of accountability, transparency, avoidance of duplication and information exchange. Under the agreement, the responsibilities of each authority are well defined. The agreement also calls for a regular exchange of information which will help the authorities to discharge their responsibilities as efficiently and effectively as possible. However, the interaction between the FSA, Bank of England and the Treasury, in the Tripartite Agreement, was seen as a key weakness following the Northern Rock collapse. Consequently, the FSA vowed to improve co-ordination with the Bank of

Box X.2
Northern Rock Liquidity Crisis

The US sub-prime mortgage market attracted many investors in the search for yield. The success of structured credit that offered high yields with high credit ratings created a huge demand for these products in particular sub-prime mortgages. It allowed banks to move increasingly from the traditional "lend and hold" model towards an "originate and distribute" model. This boosted the supply of credit and allowed risk to be more widely dispersed across the system as a whole. But it also involved a long chain of participants from the original lenders to end-investors. Investors at the end of this chain, who bore the final risk, had less information about the underlying quality of loans than those at the start and became dependent on rating agencies and their models. It also reduced the incentives on originators to assess and monitor credit risk carefully.

The delinquency rate in the US sub-prime mortgage market began to rise early in 2005, but there was no significant market response to these developments until mid-June 2007 when credit spreads began to widen. The trigger was the revelation of losses by a number of firms and a cascade of rating downgrades for sub-prime mortgage products and some other structured products. By early August 2007, growing concerns about counterparty risk and liquidity risk, aided by difficulties in valuing structured products, led to a number of other markets being negatively affected. In particular, there was a collapse in the market for collateralised debt obligations (CDOs), a massive withdrawal from the asset-backed commercial paper market, and a sudden drying-up of the inter-bank term money market. As large global banks continued to announce associated losses, concerns began to mount about the adequacy of their capital cushions.

Northern Rock, Britain's fifth-largest mortgage lender, had a positive medium-term outlook and a robust credit book in July 2007. In less than two months, however, there was a run on the Northern Rock, the first of its kind in over 100 years in the UK. The run on Northern Rock was the most dramatic symptom of the contagion gripping the financial markets in the UK on account of the sub-prime crisis in US. The bank had made good use of innovative structured products in funding its robust growth in the years prior to the crisis. The bank did not lend overseas but it was still impacted by the turmoil in America's mortgage market. When the sub-prime crisis spilled over into the securities and money markets, the bank, with its low deposit-to-loan ratio, was not able to renew its short-term financing and was forced to turn to the Bank of England for assistance. When the news broke, many customers quickly withdrew their savings. The UK had not experienced such panic-driven withdrawals since 1866. The Financial Services Compensation Scheme was not sufficient to calm the bank's customers.

By September 11, 2007, it became clear that private sector solutions, including securitisation, were not an option. On September 14, 2007, the Chancellor of the Exchequer, on the advice of the Governor, Bank of England and the FSA, Chairman, authorised the Bank of England to provide liquidity support facility to Northern Rock against appropriate collateral and at an interest rate premium to help it to fund its operations. The FSA judged that Northern Rock was solvent and had a good quality loan book. On September 17, 2007, the Chancellor announced that the Government would put in place arrangements that would guarantee deposits held with Northern Rock. On January 21, 2008, the treasury announced plans to back a private-sector rescue of Northern Rock through the sale of Government-guaranteed bonds to pay off the lenders about £24 billion debts. On February 22, 2008, the bank was nationalised as a result of two unsuccessful bids to take over the bank.

The single largest impediment in dealing with Northern Rock was the absence of a mechanism for intervening pre-emptively in a bank in trouble to separate the retail deposit book – the insured deposits – from the rest of the bank's balance sheet. A key lesson that can be learnt from the Northern Rock episode is that liquidity alongside capital should be central to the regulation of banks. Northern Rock did not face a problem of inadequate capital. But it was vulnerable to a shock that reduced the liquidity in markets for securitised mortgages.

References:

1. Memorandum from the FSA, UK to the Treasury Committee. 2007. Government of UK.
2. King, Mervyn. 2007. "Monetary policy developments". at the Northern Ireland Chamber of Commerce and Industry, Belfast, October.
3. Penn, Philip H. 2007. "Enhancing and strengthening banking supervisory capabilities in Pacific countries". at the Pacific Regional Banking Supervision Seminar, Apia, Samoa, October.
4. Gieve, John. 2008. "The return of the credit cycle – old lessons in new markets". at the Euromoney Bond Investors Congress, London, February.

England's financial stability directorate. According to some observers, the Northern Rock crisis has revealed that an 'incentive compatible' division of responsibilities has not been reached and the Agreement itself needs re-drafting. In resolving this issue, it has been argued by some that the decision to remove bank supervision from the Bank of England needs re-visiting, as does the issue of whether the authority responsible for financial stability should be divorced from bank supervision (*e.g.*, Mullineux, 2008).

10.41 The issue of LoLR has surfaced in the wake of recent sub-prime mortgage loan problem in the US, which led to a serious credit squeeze in the US and several other advanced economies. This posed a serious challenge for central banks across the world and has raised several issues in the context of the LoLR function. These issues broadly relate to the choice of instruments, bail-out, the size and manner of liquidity modulation to deal with potential gridlocks, the types of collateral, the type of institution to be supported, and the period of support, among others (Box X.3).

Box X.3
The Lender of Last Resort

The term 'lender of last resort' (LoLR) refers to a function of a central bank, whereby it lends money to support a financial institution facing temporary liquidity stress even after exhausting recourse to the market and whose failure is likely to have systemic implications. The term originated in the context of the establishment of the Bank of England when it was referred to as "*the dernier resort*" from which all banks could obtain liquidity during a crisis (Baring, 1797). The classical LoLR doctrine asserts that during periods of liquidity crisis faced by a "solvent but illiquid" bank, the central bank in its role as LoLR may support it by lending to it against good collateral, valued at pre-crisis levels, and at a penal rate (Thornton, 1802; Bagehot, 1873). The central bank, as the only institution able to create liquidity in the banking system, has an important role to play as LoLR, particularly if the liquidity problem threatens systemic stability. However, the role of LoLR entails significant moral hazard because the central bank might be seen as too willing to underwrite the banking system and bail out banks that are not as well run as others, thereby indirectly encouraging imprudent practices.

In the context of recent sub-prime crisis, the following five instruments have been used by the central banks to avoid serious spill-over of the turmoil in money or credit markets into the wider economy: (i) adjustment of borrowing and lending rates; (ii) money market operations designed to inject special liquidity in order to avoid a break-down in the payment systems among banks; (iii) modifications in the quality of eligible collateral; (iv) central banks' involvement without financial support in devising mechanisms for financial transactions among the largest of the financial intermediaries which automatically impact the second and third rung intermediaries; and (v) central banks' involvement by providing financial support to large financial intermediaries to influence finances of other financial intermediaries.

Several issues have come into sharp focus as a result of LoLR operations in the recent financial turmoil. First, central banks' liquidity operations have traditionally been in a limited range of securities and often conducted with a select group of institutions, relying on them to 'distribute' the liquidity to the rest of the system as needed. However, during the recent financial turmoil, central banks expanded the range of securities that could be accepted as collaterals. The US Fed, in particular, agreed to hold large values of mortgage-backed securities that the markets were struggling to sell and provided them with either cash or treasury securities that could be immediately converted into cash. Second, the LoLR facility is primarily meant for dealing with crises affecting banks on account of their special balance sheet characteristics relative to other financial intermediaries. However, during the recent global financial market turbulence, major central banks also supported non-banks (especially investment banks) on financial stability considerations and often lent support to unviable institutions due to systemic concerns. It has been argued that LoLR needs to be extended to non-banks as well, especially in the face of systemic consequences in the context of increasing disintermediation and the resultant blurring of the distinction between banking and non-banking services extended by both banks and non-banks as well as cross exposure.

While there is broad agreement on central banks' role as LoLR for ensuring financial stability, in practice, it is difficult to determine whether financial intermediary is solvent in a dynamic sense of being able to honour its obligations by rolling over its funding. Before acting as a LoLR, the central bank needs to make a clear judgement on some crucial issues such as (i) whether there are any systemic issues; (ii) whether the liquidity is to be provided to the market or to the institution; (iii) whether the institution is solvent but illiquid; and (iv) whether the security being offered is of good value. The main issue involved while acting as LoLR is to ensure that the central bank lends only to solvent but illiquid banks. However, at times it is difficult to distinguish an illiquid from an insolvent institution. This is especially when the financial markets are not working smoothly making it difficult to compute the market value of a bank's assets.

Since the need for emergency liquidity assistance arises suddenly and without adequate warning, timeliness in providing such assistance becomes critical while recognising that responses cannot be 'bookish' or manual-based. While the LoLR function is important for preserving financial stability; the manner and timing of its activation is unpredictable. Accordingly, the most important issue in the context of the LoLR function is to ensure that the central bank is empowered with a comprehensive, effective and independent mandate to perform this function in the interest of systemic stability while being conscious that considerable degree of judgement is involved in taking a decision on LoLR.

References:

1. Bagehot, Walter. 1873. *Lombard Street, A Description of the Money Market*. London.
2. Baring, Francis.1797. *Observations on the Establishment of the Bank of England and on Paper circulation of the Country*. London: Minerva Press.
3. Reddy, Y. V. 2007. "Global Developments and Indian Perspectives: Some Random Thoughts." Valedictory address by at the Bankers' Conference on November 27, Mumbai.
4. Thornton, Henry. 1802. *An Enquiry into the Nature and Effects of Paper Credit of Great Britain*. Hatchard, London. Reprint, George Allen & Unwin Ltd., London, 1939.

Supervisory Structure

10.42 An important feature of the structure of the banking industry until recently was the separation of the banking and other financial services industries, *i.e.,* securities and insurance. In the US, such separation was mandated under the Glass-Steagall Act of 1933. Many other countries also placed restrictions on combining banking with insurance and securities business. However, the pursuit of profit and financial innovation stimulated both banks and other financial institutions to encroach on each other's traditional area of operations. In many countries, restrictions on combining banking with insurance and securities business were withdrawn, resulting in the emergence of 'financial conglomerates' (Box X.4).

10.43 Conglomeration has been motivated by economic benefits of combining different financial activities under one roof so as to capture economies of scale and scope across business lines. These economies are generated by higher operational efficiency and by innovation of products that allow, for instance, capitalising on consumers' willingness to pay for 'one-stop shopping'. A financial conglomerate with a common information system that can be used across product lines incurs the cost of gathering information only once. Delivery, marketing and physical inputs can be combined in production of a larger set of services. Finally, when risks in different services are imperfectly correlated, there is a potential for economies in risk management through a diversified risk portfolio. Further, financial conglomeration has been considered as a means for earning profits and maintaining earnings through diversification. While advances in information technology have led to sophistication of financial services and substantial reduction of costs, they have also increased the investment burden on the financial service providers. Reducing this investment burden is believed to be another major factor responsible for financial conglomeration. The changes in financial needs have led to the emergence of new financial service providers and have also caused existing financial service providers to expand their organisations by integrating with other providers in different sectors, so that they can better respond to diversifying customer needs. The operations of financial service providers are also becoming more global as a consequence of greater cross-border movement of funds and information. Financial authorities have also helped to create an environment conducive to the integration of financial services and diversification of business by relaxing the regulations.

10.44 The operations of financial conglomerates, however, raise some serious concerns from the supervisory standpoint such as systemic risk posed by a large and complex structure, conflict of interest, regulatory arbitrage, double and excessive gearing, and contagion. When a financial institution becomes too large, the regulator might feel the need to extend liquidity support or financial safety net beyond usual policy measures to prevent system-wide financial crisis. Such an implicit insurance system gives large institutions an edge over small ones which are unrelated to their ability to manage risk, thereby increasing the vulnerability of the financial system. Large and complex financial institutions are also susceptible to the problem of weak internal controls, lack of flexibility and poor integration. As activities of the conglomerates become more complex and varied, it becomes more difficult for regulators to monitor them effectively. Conflict of interest is viewed as a fundamental weakness of a financial conglomerate. The conflict of interest arises when any entity within the financial conglomerate deals with another entity within the group on terms which are different from market terms or outside the usual approval process. At times such actions could be undertaken to bail out each other's clients. Another problem posed by financial conglomerates is the 'regulatory arbitrage', which refers to the shifting of certain activities or positions within a conglomerate where regulatory requirements are less strict or absent. Thus, a financial conglomerate may reduce aggregate capital requirements by booking risks where capital requirements are lightest. This problem arises due to 'double gearing' whereby same capital is used simultaneously to cover the capital requirements of the parent company as well as those of a subsidiary. This dual use of the same capital could lead to undercapitalisation of the conglomerate if the framework for consolidated supervision does not ensure elimination of double gearing. The problem of 'excessive gearing' arises when a parent company issues debt and downstreams the proceeds to the subsidiary/ies as equity. Another related problem is that of aggregation. That is, the risk assumed by a conglomerate may be larger than the sum of its parts (Malkonen, 2004). Yet another major issue arising out of operations of financial conglomerates is contagion. It entails the risk that financial difficulties faced by a unit within the conglomerate could have an adverse impact on the stability of the conglomerate on the whole. The adverse impact could be felt even by the healthy and well-functioning constituents of the group. Contagion results from the existence of extensive intra-group exposures.

Box X.4
Financial Conglomerates - Definition and Structure

There is no single universally accepted definition of a financial conglomerate (FC) as there are differing views as to what really constitutes a FC. The Tripartite Group (1995) defines a FC as "any group of companies under common control whose exclusive or predominant activities consist of providing significant services in at least two different financial sectors (banking, securities, insurance)". In the European Union, the following three requirements must be satisfied for a group to be considered a 'FC'. One, the group has at least one company engaged in either banking or securities and at least one company engaged in insurance. Two, a company engaged in banking, securities, or insurance is at the head of the group or the ratio of the balance sheet total of the financial sector entities in the group to that of the group as a whole (the total amount outstanding of banking, securities, and insurance services) exceeds 40 per cent. Three, for each financial sector, the average of the ratio of the balance sheet total of that financial sector to the balance sheet total of the financial sector entities in the group and the ratio of the solvency requirements of the same financial sector to the total solvency requirements of the financial entities in the group exceeds 10 per cent or the balance sheet total of the smallest financial sector entity in the group exceeds 6 billion euros.

The US financial laws do not use the term 'financial conglomerate'. The Financial Services Modernization Act of 1999 (known as the Gramm-Leach-Bliley Act or GLB Act) allows bank holding companies (BHCs) that meet certain requirements in terms of capital adequacy and other measurements to act as 'financial holding companies (FHCs)' that are allowed to establish subsidiaries for engaging in a broader range of businesses than those permitted to BHCs, including securities, insurance, and mutual funds. 'FHC' is merely a status that allows it to hold other companies offering a broad range of financial services. Likewise, financial laws in Japan do not use the term 'financial conglomerate'. Individual sectoral laws govern the scope of business open to holding companies and their subsidiaries, making Japanese financial laws more similar to the US model than the European ones.

FCs vary greatly in terms of scope, structure of their business and the size across the countries. FCs could be structured on three different lines, *viz.,* (i) the universal bank in which a bank undertakes non-traditional activities such as insurance and securities trading in-house in separate departments; (ii) the holding company structure in which the bank is in one subsidiary of a holding company and the non-traditional activities are carried out by other subsidiaries of the holding company; and (iii) parent-subsidiary (operating subsidiary) in which the non-traditional activities are located in separate subsidiaries of the bank (Figure 1).

A pure integrated structure or universal bank is the one that creates and distributes financial products within a single corporate structure. In some cases, a universal bank combines commercial and investment banking within a single corporation but conducts other financial activities through separate subsidiaries. While a universal bank necessarily involves a banking activity, a FC need not. Thus, all the FCs need not be universal banks, while all universal banks could be treated as FCs. None of the major industrial countries allows a single corporate entity to provide services in all three financial sectors of banking, securities and insurance.

In the holding company structure as found in the US, a bank and other financial companies become affiliates under the same holding company. The GLB Act of 1999 removed the restrictions that limited the ability of US financial service providers, to affiliate with each other. However, such affiliations can occur only within a FHC's structure. BHCs that qualify as a 'FHC' could engage in a broad array of financially related activities. To qualify as FHC, each depository institution subsidiary of the BHC must (i) be well capitalised and well managed; (ii) maintain at least a satisfactory Community Reinvestment Act rating ; and (iii) have a demonstrable record of providing low-cost basic banking services. A non-bank financial entity acquiring a bank is required to apply to the Federal Reserve Board to become a BHC. It could also file an application for a FHC if it meets the qualifying criteria.

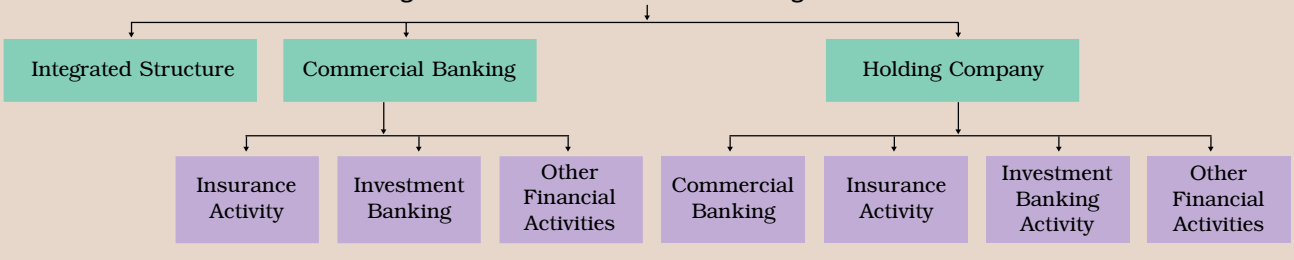
An example of parent-subsidiary conglomerate is found in the UK and several emerging market economies, including India, whereby a commercial bank or other financial entity is allowed to set up subsidiaries to deal in other financial products.

References:

1. Tripartite Group of Bank, Securities and Insurance Regulators. 1995. *The Supervision of Financial Conglomerates*, July.

2. Raj, Janak. 2005. "Is there a Case for Super Regulator in India? Issues and Options". *Economic and Political Weekly*, Vol. XLI, No. 35, 3846-3855, August 27-Septmber 2.

Figure 1: Structure of Financial Conglomerates



10.45 Each structure of financial conglomerates has its own advantages and disadvantages. The US was the first country to adopt the holding company structure and, therefore, has been the main centre for discussion on the 'parent-subsidiary structure' versus the 'holding company structure'. The main argument in favour of the holding company structure advanced in the US is that it is safer and more sound and that it encourages competition. This, in turn, is based on the premise that the federal safety net comprising Federal deposit insurance, access to the Federal Reserve's discount window and payments system may give banks certain financial advantages in the areas of funding and risk-taking over non-bank financial institutions. For these reasons, the operating subsidiary structure gives banks and their subsidiaries a competitive advantage over securities and insurance firms that remain independent of banks. The holding company structure that was supported by the Federal Reserve is believed to prevent the spread of the safety net and the accompanying moral hazard to the securities and insurance industries and assures a level playing field within the financial services industry. The Federal Reserve felt that it was critical that the subsidy implicit in the federal safety net be limited to those activities that a bank can conduct directly. It was of the view that operating subsidiaries would be a funnel for transferring the sovereign credit subsidy directly from the bank to finance any new principal activities into other entities thereby imparting a competitive advantage to such entities. This would inevitably lead to a weakening of the competitive strength of the US financial services industry as independent securities, insurance and other financial services providers would operate at a disadvantage to those owned by banks. The equity invested by banks in subsidiaries is funded by the sum of insured deposits and other bank borrowings that directly benefit from the subsidy of the safety net. Thus, inevitably, a bank subsidiary must have lower costs of capital than an independent entity and even a subsidiary of the bank's parent. One would, therefore, expect that a rational banking organisation would, as much as possible, shift its non-bank activity from the bank holding company structure to the bank subsidiary structure. Such a shift from affiliates to bank subsidiaries would increase the subsidy and the competitive advantage of the entire banking organisation relative to the non-bank competitors (Greenspan, 1997).

10.46 A holding company structure, according to the Federal Reserve, achieves the full benefits of modernisation and has a proven track record of protecting safety and soundness, insulating the federal safety net, and providing competitive equality among companies that choose to affiliate with banks and those that choose to remain independent. It is, therefore, argued that by requiring non-bank activities to take place in separately capitalised subsidiaries of the holding company, the risk taking effects of those activities could be insulated from the bank and will not impose additional claims on the federal safety net, *i.e.,* deposit insurance, the discount window and the payment system guarantees. The US regulators felt that the capital of the banking organisation and the federal safety net would be more seriously exposed to losses on securities and insurance activities under the parent-subsidiary relationship than under the holding company structure.

10.47 There are, however, also strong arguments in favour of the UK subsidiary-based model. It is argued that it represents the best practical universal banking approach and an organisational arrangement that can support important diversification gains, and at the same time is reasonably able to handle the regulatory imperfections, which make pure universal banking model untenable and the holding company structure inflexible. The operating subsidiary model, while requiring separation of activities between parent and subsidiaries, does not require the type of firewalls that are uniquely found in the holding company structure and has several advantages. First, by requiring that non-bank activities take place in separately capitalised subsidiaries of the bank, bank capital is in part protected from major unexpected losses in these areas. Second, by allowing a greater degree of integration between a bank and its non-bank subsidiaries, the potential to generate earnings through diversification effects is increased. Also, the potential for generating economies of scope, both on the cost and revenues sides, for the universal bank is enhanced. This, in turn, enhances the safety and soundness of the bank. Both diversification effects and economies of scope effects serve to reduce the probability that the safety net will be called into play. Forcing a financial services company - as a prerequisite for engaging in new activities - to transfer resources from its bank to its holding company would deplete the bank's resources, leaving the bank's earnings less diversified, and thus increasing risk to deposit insurance funds. Third, the UK model dovetails directly into the historical functional design of financial services regulation. Consequently, banking authorities could remain the primary regulators of the universal bank parent, while securities and insurance regulators for the securities market and insurance sector, respectively. Their policies could be coordinated through an appropriate mechanism such as lead regulator.

10.48 It is also argued that banks do not behave as if they enjoy subsidy. Even if there were a subsidy, the appropriate response should be to contain it carefully rather than to impose organisational constraints. Those who support operating subsidiary structure argue that potential losses in the operating subsidiary could be capped in such a way as to eliminate the exposure of the safety net. Investment by a bank in its operating subsidiary could be deducted from the regulatory capital of the bank, after which the bank's regulatory capital position must still be deemed "well-capitalised." Moreover, the bank would be prohibited from making good any of the debts of the failed subsidiary. However, the counter argument to this is that losses in, for example, securities dealing or insurance underwriting conducted in an operating subsidiary could occur so rapidly that they could overwhelm the parent bank before actions could be taken by the regulator. Put differently, losses in an operating subsidiary can easily far exceed a bank's original equity investment long before the supervisor has any such knowledge. The resulting bank safety and soundness concerns are only deepened by the extent to which past retained earnings of the operating subsidiary would have strengthened the capital of the parent bank - an ostensible reason for setting up operating subsidiaries. Such a build-up in capital could be used to support other bank activities, and then eliminated by subsequent losses in the operating subsidiary, leaving the bank in an under-capitalised position. Thus, in the holding company structure, it is opined, all non-bank activities are subject to the same regulatory system and would protect banks and the federal deposit insurance system from the risk of failure of an operating subsidiary engaged in non-banking activity.

10.49 Some others, however, feel that there is no evidence of a safety net subsidy as has been made out. Any benefit banks receive from the safety net is more than offset by regulatory costs. A study about the linkage between organisational structure and the bank safety net reports that, measured by variability in the return on assets, securities subsidiaries set up by banks are less risky than those organised as holding company affiliates (Whalen, 2000). However, securities subsidiaries set up by banks tend to have lower capital than holding company subsidiaries so that the overall risk of the former could be higher. They also tend to have higher funding costs. This would be consistent with the argument that the operating subsidiaries are riskier than their holding company affiliated counterparts. However, the findings are inconclusive regarding the main question of the safety net subsidy.

10.50 Traditionally, the regulation of financial intermediaries has been on institutional lines whereby regulation is directed at financial institutions, irrespective of the mix of business undertaken. As financial institutions normally specialised in a particular business line, therefore, the distinction between institutional and functional regulation was not of much relevance and regulating financial intermediary was not much different from regulating its main business. However, in the face of blurring of activities among providers of financial services and emergence of financial conglomerates or universal banks, the institutional structure has become a major issue of policy and public debate in several countries. The institutional approach to regulation is being objected to mainly on three grounds. The first is the competitive neutrality issue, *i.e.*, different institution-based regulators might apply different functional regulation for the same activity. It is argued that with the lines of demarcation between products and institutions getting blurred, it is possible that financial institutions offering similar services or products are supervised by different authorities. The existence of a range of supervisory authorities also poses the risk that financial firms will engage in some form of supervisory arbitrage by placing a particular financial service or product in that part of a given financial conglomerate where the supervisory costs are the lowest or where supervisory oversight is least intrusive. The second issue relates to the wasteful duplication, which means each regulator would need to apply the business rules appropriate for every function, which would be inefficient in terms of regulatory resources (Goodhart, *et al.*, 1998). Another important issue relates to the solvency of the institution. It is argued that many of the threats to the institution can be assessed adequately only on a group-wide basis. This includes the assessment not only of whether the group as a whole has adequate capital, but also of the quality of its systems and controls for managing risks and the calibre of its senior management (Briault, 1999). Some believe that the regulatory structure should mirror corporate structure. Therefore, there has been pressure for the reorganisation of regulatory agencies in several countries where regulation is based on institutional lines. To mitigate the problems posed by the blurring of activities among providers of various financial services and operations of financial conglomerates, four broad approaches have been suggested, *i.e.*, function-specific regulation, objective-based regulation, super regulator or unified regulation and lead/umbrella regulator (Box X.5).

10.51 Some countries have followed the approach of integrated supervision or 'mega' or 'super' regulator

Box X.5
Approaches to Financial Regulation

Under the function-specific regulation, each activity is regulated by a specialist regulator, *i.e.*, banking activities are regulated by banking regulators, investment activities by securities regulators and insurance activities by insurance regulators. Proponents of function-specific approach argue that whatever may be the change in the degree of regulation in future, a major change in the format of regulation from 'institution' to 'function' seems inevitable (Merton and Bodie, 1995). The function-specific approach, however, has been criticised on several grounds. Apart from the fact that the function-specific approach is more complex, fears have been expressed that specialised agencies supervising different parts of the business of financial conglomerates might lose sight of the institution as a whole. It is also argued that it is the institutions and not functions that fail or become insolvent, and, therefore, institutions as such need to be regulated for ensuring safety and soundness (Goodhart, *et al.*, 1998).

Taylor (1995 and 1996) argue for a regulatory structure-based primarily on the objectives of regulation. According to Taylor's model, known as 'twin peaks', there should be two separate supervisory bodies – one responsible for prudential supervision of most of the financial institutions and another for conduct of business of financial institutions. This model is criticised on the ground that the distinction between prudential supervision and conduct of business regulation in practice is not as neat and simple as Taylor's twin peaks model might suggest. Even without the emergence of financial conglomerates, a large number of financial service providers would require regulation both on prudential basis and conduct of business basis. It is also argued that there is a considerable overlap, both conceptually and in practice, between prudential and conduct of business regulation (Briault, 1999). Goodhart, *et al.,* (1998) argue that the 'twin peaks' model is too all-embracing and observe that most financial institutions are not conglomerates and propose a structure of regulation based on the different objectives of regulation. They suggest six separate regulators covering systemic risk (banks, building societies and credit unions); non-systemic prudential regulation (insurance companies); retail conduct of business; wholesale conduct of business; financial exchanges; and a competitive authority.

The term 'super' or 'mega' or 'conglomerate' regulator commonly refers to a structure that combines regulation in respect of all three or two supervisory responsibilities relating to banks, securities firms and insurance companies. It is argued that a single agency is in a better position, in principle, to avoid problems of competitive inequality, inconsistency, duplication, overlaps and gaps, all of which can arise in a regulation based upon separate regulatory agencies. It is further argued that accountability of a single regulator is more certain and it is difficult to pass the blame on to other regulators (Abrams and Taylor, 2000). Some of the major arguments advanced in favour of a 'single' regulator are economies of scale and economies of scope or synergies. The opposite view is that there is no pressing need to create mega prudential supervisory agency. It is argued that while financial institutions engaged in various activities have diversified, their core business remains dominant. The nature of risks is sufficiently different to warrant a differentiated approach to prudential regulation. Therefore, some feel that a single regulator might not be able to make the necessary differentiation among different types of institutions and the risks undertaken by them (Goodhart, *et al.*, 1998). Another argument relates to the 'moral hazard' problem, which is based on the premise that depositors and other creditors of all financial institutions supervised by the same regulatory authority may expect to be treated in an equivalent manner (Abrams and Taylor, 2000). The most crucial issue involved in the introduction of unified structure is whether it should be created within the central bank or outside it. This issue assumes significance mainly due to the involvement of central bank in supervision.

In between the extremes of a super regulator for all activities and separate regulator for each activity is the 'umbrella'/ 'lead' regulator. In the case of a lead regulator, individual regulatory agencies continue to exist, while one of the regulators is selected to coordinate the regulation and to have a group-wide assessment. The umbrella supervisor is an authority which is distinct from and above the functional supervisors and is fully responsible for supervision of the entire financial conglomerate. Thus, the term 'lead' regulator and 'umbrella' regulator have different meanings, although they may be performing the same functions.

References:

1. Abrams, K. Richard and Michael W. Taylor. 2000. "Issues in the Unification of Financial Sector Supervision." *IMF Working Paper, WP/00/213.* December.
2. Briault, Clive. 1999. "The Rationale for a Single National Financial Services Regulator", *Occasional Paper Series 2, Financial Services Authority*, UK, May.
3. Goodhart, C A E, P Hartmann, D Llewellyn, L Rojas, Suarez and S Weisbrod. 1998. ''The Institutional Structure of Financial Regulation'' in *Financial Regulation, Why, How and Where Now?* C.A.E.Goodhart (ed.). London. Routledge Publication.
4. Martinez, Jose de Luna and Thomas A Rose. 2003. 'International Survey of Integrated Financial Sector Supervision''. *Policy Research Working Paper 3096*, World Bank, July.
5. Merton R. C. and Z. Bodie. 1995. *A Conceptual Framework for Analysing the Financial Environment, The Global Financial System - A Functional Perspective*. Harward Business School Press.
6. Taylor, M. 1995. "Twin Peaks: A Regulatory Structure for the New Century." *Working Paper No. 20,* Centre for the Study of Financial Innovation, London, December.
7. ——.1996. *Peak Practice: How to Reform the UK's Regulatory System*. Centre for the Study of Financial Innovation, London, October.

combining all the three activities, *i.e.,* banking, insurance and securities. This has been done with the belief that an integrated supervisor is likely to be more effective in creating a level playing field across various financial sectors and limiting the possibility for regulatory arbitrage. In all, 37 countries follow the super regulator approach (Table 10.1). Of these, the super regulatory structure in 13 countries is within the central

Table 10.1: Countries with Super Regulator Structure*

Sr. No.	Country	Within the Central Bank	Outside the Central Bank
1	2	3	4
1	Austria		Financial Market Authority
2	Bahrain	Yes	
3	Belgium		Commission Bancaire, Financiere et des Assurances (CBFA)
4	Bermuda	Yes	
5	Bhutan	Yes	
6	British Virgin Islands		The British Virgin Islands Financial Services Commission
7	Brunei		Brunei International Financial Centre, Ministry of Finance
8	Cayman Islands	Yes	
9	Cook Islands		Financial Supervisory Commission
10	Denmark		The Danish Financial Supervisory Authority (DFSA)
11	Estonia		Estonian Financial Supervision Authority
12	Germany	Yes $	German Federal Financial Supervisory Authority (BaFin).
13	Gibraltar		Financial Services Commission
14	Guatemala		Superintendencia de Bancos de Guatemala
15	Guernsey		Guernsey Financial Services Commission
16	Honduras		National commission of Banks and Assurances
17	Hungary		Hungary Financial Supervisory Authority
18	Iceland		The Financial Supervisory Authority, Iceland
19	Ireland	Yes	
20	Japan		Financial Services Agency
21	Jersey		Jersey Financial Services Commission
22	Kazakhstan		Agency of Financial Supervision
23	Korea		Financial Supervisory Commission (an independent government agency) and its sub-Committee Securities and Futures Commission (SFC) as well as Financial Supervisory Service (a non-government agency)
24	Latvia		The Financial and Capital Market Commission
25	Liechtenstein		Financial Market Authority
26	Macau, China	Yes	
27	Malawi	Yes	
28	Maldives	Yes	
29	Malta		Malta Financial Services Authority for banking, investment services, offshore and insurance.
30	Nicaragua		The Superintendency of Banks and Other Financial Institutions for banks, securities and insurance.
31	Norway		Kredittilsynet (The Banking Insurance and Securities Commission of Norway)
32	Singapore	Yes	
33	Slovakia	Yes	
34	Suriname	Yes	
35	Taiwan		Financial Supervisory Commission regulates banks, securities firms and insurance companies. The Central Bank of China retains the responsibility for the stability of the financial system as a whole.
36	United Kingdom		Financial Services Authority (FSA)
37	Uruguay	Yes	

* : Combining banking, insurance and securities supervision.

$: The Deutsche Bundesbank will continue to supervise banks.

Source: Central Banking Publications. 2008. *How Countries Supervise their Banks, Insurers and Securities Markets 2008: The Who and How of Financial Supervision in more than 190 Jurisdictions*. London: Incisive Media Haymarket House.

bank, and in other countries, it is outside the central bank. However, in some of these countries such as Singapore and Norway, the super regulator structure existed long before the present wave of financial conglomerates. The rationale for combining supervision in these countries was small size of the financial sector and scarce supervisory resources.

10.52 Australia has adopted an objective-based regulatory approach. The supervisory structure followed by Australia is quite unique in the sense that it is not based on institutions or products, but rather on regulatory functions/objectives. Australia restructured the existing supervisory institutions by introducing two cross-sectoral bodies, one for prudential supervision of banks, insurance companies and pension funds and one for the supervision of securities firms and conduct of business requirements with a single overarching council above them.[1]

10.53 Most countries, however, continue to follow a system of multiple regulators. While no significant correlation between GDP per capita (a measure of the level of economic development) and the existence of multiple supervisors was found, it was observed that the existence of multiple supervisors was positively correlated with the total assets of all banks (a measure of the country's banking system) relative to GDP (Barth, *et al.*, 2006). However, in order to coordinate the supervision of financial conglomerates by multiple agencies, some countries have adopted the approach of a 'lead' regulator or 'umbrella' regulator. Under the 'lead regulator' model, one of the regulators takes responsibility for assessing the risk profile and capital adequacy of all the operations of a diversified group. Under this arrangement, if the main activity is commercial banking, the lead regulator is the bank regulator, who is then charged with the added responsibility of overseeing the entire group's operation and ensuring coordination of responses but without usurping the power of other regulators. The lead regulator's main role is to ensure that relevant regulatory information about the conglomerate is shared promptly amongst all the regulators concerned.

10.54 The Gramm Leach Bliley (GLB) Act in the US blends functional regulation with umbrella regulation. Functional regulation envisions that each subsidiary of the financial services holding company is separately regulated by financial regulator. For instance, the Securities and Exchange Commission (SEC) acts as a primary regulator of securities firms and the state insurance regulators are the financial regulators of companies engaged in insurance activities. The functional regulator has authority to set capital standards for, require reports from, and perform examination of, the particular subsidiary it oversees in the holding company structure. The functional regulator does not have authority, however, to set capital standards for, impose reporting requirements upon, or conduct examinations of, other entities in the organisation.

10.55 The Federal Reserve Board is the umbrella supervisor of both financial holding companies and bank holding companies. As an umbrella supervisor, the Federal Reserve Board can impose capital requirements on holding companies. Under the so-called "Fed-lite" provisions of the GLB Act, the Board also has the authority to require reports from and examine holding companies or their subsidiaries, subject to certain limitations. The umbrella supervision in the US is based on the premise that risks are managed on a consolidated basis by an organisation and such risks cannot be reviewed on an individual legal entity basis by different supervisors. That is, each regulator looking only at how the risk management process done in the entities they regulate may not be adequate. Consolidated oversight of such organisations is important because the risks associated with a broad range of financial activities can cut across legal entities and business lines.

10.56 In less than 10 years of putting in place the system of umbrella supervision, the regulatory structure in the US is being revisited in the light of recent financial market developments, especially the growing institutionalisation, which is pressurising the US regulatory structure, exposing regulatory gaps as well as redundancies, and compelling market participants to do business in other jurisdictions with more efficient regulation.It is now being felt that an objective-based regulatory approach would represent the optimal regulatory structure for the future. The Department of Treasury in its report released in March 2008, after exploring the various options, indicated that the US could move to an objective-based regulatory approach focusing on the goals of regulation. Such a regulatory

[1] In fact, in Australia many regulatory bodies were restructured into just four, each responsible for a particular regulatory function, *i.e.*, (i) for ensuring competition; (ii) for market conduct and consumer protection; (iii) for prudential regulation of deposit taking, insurance and superannuation; and (iv) for overseeing systemic stability. This is based on the view that markets/institutions fail on account of four main reasons, *i.e.*, anti-competitive behaviour, market misconduct, information asymmetry and systemic instability. However, the body for ensuring competition has jurisdiction not only over the financial sector but also the non-financial sector.

structure would focus on three key goals: (i) market stability regulation to address overall conditions of financial market stability that could impact the real economy; (ii) prudential financial regulation to address issues of limited market discipline caused by government guarantees; and (iii) business conduct regulation (linked to consumer protection regulation) to address standards for business practices. The Department of Treasury is of the view that in comparison with other regulatory structures, an objective-based approach is better able to adjust to changes in the financial landscape than a structure like the current US system which focuses on industry segments. The Federal Reserve should assume the role of financial market stability given its traditional central bank role of promoting overall macroeconomic stability. A new Prudential Financial Regulatory Agency (PFRA) is proposed to focus on financial institutions with some type of explicit government guarantees associated with their business operations. It also proposed a new Conduct of Business Regulatory Agency (CBRA). The CBRA should monitor business conduct regulation across all types of financial firms (Department of Treasury, 2008).

Supervision *vis-à-vis* Market Discipline

10.57 During the last fifteen years or so, increasing attention has been devoted by bank supervisors and regulatory authorities to the issue of market discipline. While different opinions exist on the best way to achieve it, most observers agree that bank supervisors should increasingly rely on market forces to supplement their traditional supervisory methods. Market discipline in the banking sector can be described as a situation in which private sector agents including depositors, creditors, and stockholders face costs that lie in the risks undertaken by banks and take action on the basis of these costs. For example, uninsured depositors, who are exposed to bank risk-taking, may penalise riskier banks by requiring higher interest rates or by withdrawing their deposits (Martinez Peria, *et al.*, 2001). Even insured depositors may respond to bank risk if there is some uncertainty or costs involved with recovering deposits in the case of bank failure. Hence, depositors who are highly sensitive to bank risk are likely to restrain banks' excessive risk-taking behavior. The direct and indirect effects of the market may be distinguished (Board of Governors of the Federal Reserve System Study Group, 1999). The direct effect is the influence that investors exercise on bank risk-taking by affecting the cost and/or quantity of funds. This may be referred to as market influence. The indirect effect is the interaction of supervisors' information with that of the market. Stakeholders in a firm can monitor and control the firm's behavior using market mechanisms. The ability of stakeholders, including debt holders and stockholders, to influence the cost and quantity of funds available to the firm and the valuation of its assets provides a market-based structure for corporate governance (market discipline). There are two interdependent reasons for the emphasis on market discipline. First, the activities of major international banks have become increasingly complex. As a consequence, the task of controlling their risk-taking behaviour has become increasingly difficult. Second, a trend towards stronger regulatory reliance on banks' own internal risk management systems has emerged.

10.58 Market discipline does not come naturally to banking. The safety net limits direct market discipline because it reduces the demand for disclosure and the risk-sensitivity of debt holders. Clearly, insured depositors have almost no incentive to penalise banks for excessive risk-taking. Further, the perceived certification of soundness provided by supervisory authorities may also reduce the demand for disclosures and the risk-sensitivity of debt holders. Compounding these disincentives for investors to evaluate bank risks, the *raison d'etre* of banks is that these institutions provide credit in environments characterised by asymmetric information. Therefore, banks are inherently opaque and difficult to assess.

10.59 Banking supervisors around the world have recognised the importance of market discipline in encouraging sound risk management practices and in promoting the stability of financial markets. Effective market discipline can complement bank supervision and regulation. But its pre-requisite is to have the information necessary to understand the risks in the entity that the market is observing. With sufficient, timely, accurate, and relevant information, market participants can better evaluate counterparty risks and adjust the availability and pricing of funds to promote better allocation of financial resources. Lenders and investors have an obvious interest in meaningfully assessing a firm's risk-management performance, underlying trends, cash flow, and income-producing potential. In this regard, transparency is essential to providing market participants with the information they need to effect market discipline.

10.60 The Basel Committee on Banking Supervision "emphasises the potential for market discipline to reinforce capital regulation and other supervisory efforts in promoting safety and soundness in banks and the financial system". The Basel Committee has taken the view that enhancing market discipline is important in a

world where supervisory resources are limited and banking activities are becoming more and more complex. This view is reflected in Pillar 3 of the new Basel Accord as detailed in Chapter V. The Basel II Accord shifts some of the burden of bank oversight from supervisors to markets. However, an important issue is whether market discipline can be effective and under what conditions it might not be.

10.61 There are some key issues that have arisen in the context of effectiveness of market discipline. The existence of moral hazard and the effectiveness of market discipline are intimately related. In the absence of bankruptcy costs and corporate governance problems between bank shareholders and bank, if bank deposits are uninsured and the bank's risk choice is observable by depositors, the bank's risk choice will be efficient. The reason is that banks internalise the impact of their risk choice on depositors since these, in turn, will demand higher compensation if the bank incurs higher risk. In such a world, there is perfect market discipline and no moral hazard (Blum, 2002 and Cordella and Yeyati, 1998). Conversely, if deposits are insured or the bank's risk choice is not observable by depositors, then the bank will choose a higher risk profile at the expense of depositors. The reason is that depositors will not demand a higher return in response to higher risk choices by the bank. In such a world, there is no market discipline and the bank's choice of its risk of default is subject to moral hazard.

10.62 Theoretically, the effectiveness of market discipline in containing excessive risk-taking hinges on (a) the extent of the government safety net (insurance); (b) the degree to which the bank is financed by uninsured liabilities (funding); and (c) the extent of observability of bank risk choices (disclosure). Market discipline is likely to be more effective, the lesser the degree of explicit or implicit government guarantees relating to bank liabilities, the greater the amount of uninsured liabilities in the bank's balance sheet and the greater the degree of bank disclosure.

10.63 Empirical evidence suggests that moral hazard exists and that market discipline plays a role in mitigating banks' risk of insolvency. It has been observed that (a) the explicit or implicit government guarantees lead banks to choose lower capital buffers; (b) a higher share of uninsured funding has a disciplining effect leading banks to choose larger capital buffers for given risk; and (c) banks which disclose more information and thus are subject to stronger market discipline limit their probability of defaults by choosing a higher capital buffer. All of these effects are weaker when one looks at the sub-sample of banks for which the market believes that government support will lead to a bail-out, effectively insuring investors.

10.64 The effect of an extensive deposit insurance scheme on bank risk is somewhat mixed – (a) there is a stronger support for the notion that implicit government guarantees, resulting from banks being too big to fail, induce these banks to choose a higher probability of default, as measured by the ratio of non-performing loans for a given capital ratio; (b) overall, it is not clear that uninsured funding sources lead to lower default risks of banks; (c) there is a strong support for the hypothesis that banks disclosing more information have lower realised risk. Furthermore, market discipline is stronger when banks are not likely to be bailed out by the government. Disclosure is of particular importance when banks approach insolvency since other measures of market discipline may be less effective.

10.65 Enhancing market discipline through more disclosure and/or uninsured liabilities has been argued to be beneficial in that both mechanisms provide incentives for firms to maintain adequate solvency standards. But the beneficial effect of these policy initiatives is likely to be stronger for banks that do not enjoy implicit government guarantees. This has important consequences on how to optimise the mix between Pillar 2 and Pillar 3 (refer Chapter V for details) of the New Basel II Accord. If implicit government guarantees cannot credibly be abolished or indeed are necessary to prevent systemic banking crises and the large economic costs that are associated with them, banks that are subject to such guarantees are likely to be less influenced by market discipline. Close supervisory oversight of these banks will, therefore, need to remain a crucial ingredient in the regulatory framework. In addition, some forms of market discipline are less effective for banks which are close to insolvency. This reinforces the importance of minimum capital requirement as a prerequisite for the effectiveness of market discipline (Pillar 1 of the New Basel II Accord).

10.66 A promising approach to enhance market discipline, which has received considerable attention of late, is to adopt a subordinated debt policy. Central bankers at the Federal Reserve System advocated a more specific policy mandating that large banks should issue subordinated debt securities. The 1999 GLB Act called for the Federal Reserve Board and the Secretary of the Treasury to study the feasibility and desirability of subordinated debt proposals. The study, released in January 2001, concluded that adoption of a subordinated debt policy might potentially improve the safety and soundness of the banking system (Box X.6).

Box X.6
Subordinate Debt as a Means of Market Discipline

Subordinated debt is bank liability representing borrowing that, in the event of default, would be paid only after all other liabilities have been discharged. Aware of the potential for significant loss, investors in subordinated debt are especially sensitive to the risk of default, and their perception of risk will be reflected in lower market valuations and hence higher yields for subordinated debt. In discussions of subordinated debt, regulators note the potential for indirect market discipline (Federal Reserve Study Group, 1999), which occurs when regulators or stakeholders use the yields on a bank's subordinated debt as a signal of its condition. If all large banks were required to issue the same type of subordinated debt, regulators would have an easy means of comparing banks' default risk. The banks with the highest yields on subordinated debt could be singled out for prompt corrective action or more rigorous supervision.

Subordinated debt is viewed as having several advantages over uninsured deposits as a means of promoting both direct and indirect market discipline.

First, subordinated debt being the most junior of all bank liabilities, its yield should be more sensitive to changes in risk than are the yields of large denomination deposits. These bondholders are the least likely to be bailed out in the event of bank failure, and the most likely to demand disclosures of a bank's condition. Subordinated debt issued in place of insured deposits thus provides an extra "cushion" for the deposit insurance fund in the event of bank failure. However, the hypothesis that the yield of subordinated debt is more sensitive to risk than the return on uninsured deposits has been found to be difficult to confirm empirically.

Second, subordinated debt, having longer maturity, is less susceptible to runs. During any month, the value of subordinated debt that needs to be rolled over would be a small proportion of the total outstanding. Hence, the bank is not pressed to redeem the debt all at once and has more time to resolve its problems. A deterioration in a bank's condition can be met with price adjustments as investors value its outstanding debt at lower prices or with quantity adjustments as investors curtail their lending.

Third, subordinated debt holders do not partake in the upside gains associated with risk-taking. Hence, in principle, the issuance and secondary market spreads on subordinated debt should be particularly sensitive to banking organisation risk. In contrast, since equity holders may also benefit from the upside gains associated with risk-taking, equity issuance may provide inadequate direct market discipline, and the signals of bank risk derived from secondary market prices may be blurred and difficult to interpret.

Fourth, subordinated debt is also attractive from a market discipline perspective because there exists a well-established, deep, and fairly liquid market for such instruments. The standardisation of publicly traded subordinated debt of banking organisations is also striking and desirable from a market discipline perspective. The majority of U.S. bank or (more commonly) holding company subordinated debt instruments being issued today are fixed-rate, non-callable, 10-year maturity bonds. These two features of the market, liquidity and standardisation, facilitate the comparison by market participants of secondary market subordinated debt spreads.

While the concept of market discipline through subordinated debt is promising, a number of practical concerns arise. First, for indirect market discipline, the signaling information from bank stocks has two advantages over the signaling information from bank debt securities. One, the number of banking organisations that issue debt publicly, including both subordinated notes and debentures (SNDs) and Certificates of Deposit (CDs), is relatively small compared to the number that have publicly traded equities. Two, because the market for bank equities is more liquid and is covered by more professional analysts than the market for bank debt, stock prices tend to be more efficient than bond prices in reflecting firm-specific information. Thus, in terms of both data availability and data quality, bank stocks are relatively more relevant than bank debt for indirect market discipline. Second, the possibility that the regulators will bail out the debt holders if a bank gets in trouble, even if the government has no explicit authority to do so. Although this is a valid concern, it is believed that the problem is with the institutional incentives during periods of crises and not with a subordinated debt *per se*. Finally, additional concerns include the costs of issuing debt and the potential for insider trading.

It is, by and large, believed that more research is needed to make the case for a policy to enhance market discipline through subordinated debt and to pin down the design features of a specific policy for such instruments. Nevertheless, the merits of subordinated debt may not be ignored in the direction of achieving market discipline in the banking sector.

References:

1. Federal Reserve Bank of San Francisco (FRBSF) Economic Letter. 2002. "The Promise and Limits of Market Discipline in Banking". No. 36, December.
2. Maclachlan, Fiona C. 2001. "Market Discipline in Bank Regulation, Panacea or Paradox?". *The Independent Review*. Vol. 6, No. 2, Fall 2001, 227–234.
3. Meyer, Laurence H. 1999. "Market Discipline as a Complement of Banking Supervision and Regulation". Remarks before the conference on Reforming Bank Capital Standards in New York, June.
4. Rodríguez, L. Jacobo. 2002. "International Banking Regulation - Where's the Market Discipline in Basel II?". *Policy Analysis*, No. 455, Cato Institute, October.

10.67 The effectiveness of market discipline crucially depends on the robustness of the financial infrastructure that underpins transactions such as the legal and judicial framework, the accounting standards used to value financial assets, the availability of relevant statistics; the payment and settlement system; and principles of corporate governance, among others. Accounting practices are another major source of problems as capital ratios do not mean very much if a bank's lending portfolio is inappropriately valued. Market discipline dependent on disclosure and transparency will be largely ineffective if faulty accounting masks the true state of balance sheets. Thus, weaknesses in the financial infrastructure can make ineffective the most careful supervisory oversight.

Principle-based Regulation

10.68 As a concept, principle-based regulation emphasises moving away from detailed and prescriptive rules and supervisory actions. It focuses more on the outcomes that the regulators want to achieve, leaving the judgement calls on how to achieve those outcomes to the management of the firms. The Financial Services Authority (FSA) of the UK, which is the integrated regulator for financial services, pioneered the shift to a principle-based approach to regulation, which complements the risk- and evidence-based models. In the last few years, the FSA has increasingly focused its supervisory and enforcement tools based on principles and the outcomes. Principle-based regulation is not new in the UK. Most of the 11 high-level principles of the FSA for firms that have been in place since 2001 were present even in the earlier regulatory system overseen by the Securities and Investments Board.

10.69 The 11 principles of the FSA are general statements of the main regulatory obligations that apply to every authorised firm. The principles set out in simple terms the high level standards that all firms must meet. If any firm contravenes one or more of the principles, it could face enforcement action, which could, for instance, result in firm's authorisation being removed. The principles focus on what FSA regulations are trying to achieve and so are expressed in terms of outcomes and behaviours rather than processes or procedures. The 11 principles of business of the FSA cover aspects of integrity, skill, care and diligence, management and control, financial prudence, market conduct, customers' interests, communications with clients, conflicts of interest, customers, clients' assets, and relations with regulators.

10.70 The implementation of principle-based regulation requires clearly articulated outcomes that regulators want to achieve and against which their performance can be measured. The FSA has increasingly become explicit to target and deliver regulatory outcomes that align to its statutory objectives. This is driven by three strategic aims that have provided a consistent framework for FSA activities since 2003. These are: (i) promoting efficient, orderly and fair markets; (ii) helping retail consumers achieve a fair deal; and (iii) making the FSA a more effective organisation that is easier to do business with. To help the FSA, both to embed principle-based regulation and to track its progress in a structured and consistent way, the FSA has now taken an additional step by defining nine outcome indicators, three under each aim (Table 10.2).

Table 10.2: Strategic Aim and Indicators of Principle-based Regulation

Strategic Aim	Indicator Number	Definition
Help retail consumers achieve a fair deal	1	Consumers receive and use clear, simple and relevant information from the industry and from us.
	2	Consumers are capable and confident in exercising responsibility when dealing with the financial services industry.
	3	Financial services firms treat their customers fairly and so help them to meet their needs.
Promote efficient, orderly and fair markets	4	Firms are financially sound and well managed.
	5	Firms and other stakeholders understand their respective responsibilities and mitigate risks relating to financial crime and arising from market conduct.
	6	Financial markets are efficient, resilient and internationally attractive.
Improve our business capability and effectiveness	7	The FSA is professional, fair, efficient and easy to do business with.
	8	The FSA is effective in identifying and managing risks to our statutory objectives.
	9	The costs and benefits of regulation are proportionate.

Source: Financial Services Authority. 2007. *Principles-based Regulation – Focusing on the Outcomes that Matter*. UK, April.

10.71 According to its proponents, there are several merits of principle-based approach to financial regulation. These are: (i) it is easier to generate a set of principles rather than a set of detailed rules; (ii) understanding a set of principles is easier for all stakeholders; (iii) it is flexible, making it particularly suitable for a heterogeneous banking industry by allowing it to develop its own compliance ethos within the context of its own markets, legislative backgrounds and cultures; (iv) it encourages a co-operative and outcome-oriented relationship between a firm and its regulator and facilitates mutual understanding among regulators; and (v) it provides a basis for open dialogue between the regulator and the regulated and promotes a co-operative and educative approach to supervision.

10.72 On the other hand, principle-based approach also means greater uncertainties for the regulated institutions and the need for having a team of highly competent examiners/inspectors who will be able to understand the business model of the regulated institutions and be able to apply principles to reach supervisory conclusions. Owing to the inherent uncertainty, the distinction between minimum standards and the best practices may start fading, leaving the institutions to work out standards for themselves. The move towards principle-based regulation could also result in concerns over accountability in a number of ways. Principle-based approach may also become open to abuse by not so well-intentioned firms for whom enforcement action based on more detailed rules could be more appropriate. Principle-based regulation imposes onerous demands on, and requires adequate protection for, the staff of supervisory agencies. They are required to understand each regulated firm, and make discretionary judgments about whether its business plan and *modus operandi* are consistent with the principles established by the regulator. This requires an elaborate system of transparency and checks and balances in order to prevent abuse.

10.73 The enabling conditions for the introduction of principle-based regulation are (i) the building up of adequate infrastructure; (ii) identifying the market activities that are amenable to regulation using high-level statements of principles; (iii) capability of the regulator to implement risk-based regulation; and (iv) the capacity of regulatory staff to operate in an environment that places a premium on analysis and the exercise of discretion in the public interest and a commitment towards principle-based regulation. Moving towards principle-based regulation also requires a change in culture for regulatory bodies as well as the firms. It has significant implications for the way in which regulators work with firms on a day-to-day basis. The regulators may look for firms to take greater responsibility in meeting their regulatory obligations. The regulators' own approach also needs to be directed away from enforcement of detailed procedural points and towards the regulatory outcomes. Well managed firms that engage positively and openly with regulators should expect to gain from the principle-based approach in the form of a regulatory dividend, for example relatively lower levels of regulatory capital, less frequent risk assessments, greater reliance on firms' senior management or a less intensive risk mitigation programme (FSA, 2007).

10.74 Rule-based and principle-based supervisory approaches are not mutually exclusive. They are rather complementary. The regulators, therefore, need to identify the areas in which these supervisory approaches are effective and boost the effectiveness of the regulations in their entirety, based on the optimal combination of these two approaches. Significantly, the FSA continues to rely on detailed rules running into over 8,000 pages and prescriptive processes in certain cases. Detailed regulatory rules can be embedded in principle-based regulation as well. The FSA is, therefore, not a purely principle-based regulator and in certain areas, it continues to rely on detailed rules and prescriptive processes to ensure adequate consumer protection or sufficient consistency and comparability between regulated entities. It is perceived that it will not be possible for the FSA to get away from detailed rules entirely and rule-based approach would have an important continuing role in certain aspects of the regulatory regime. In reality, there will always be a mixture of detailed rules and principles in the regulatory regime.

10.75 The UK is the only country that has adopted principle-based platform for financial regulation. Furthermore, one decade is not a sufficient period to draw firm conclusions about its unquestioned superiority. The recent episode of liquidity crisis in the Northern Rock has raised concerns about the effectiveness of principle-based regulation. Both rule-based and principle-based regulations have their advantages and disadvantages. While the rules provide legal certainty, they are non-flexible. In contrast, the principle-based regulation would be more adaptable, but would require active participation of management and the regulators for its successful implementation. As market players compete with one another, principle-based regulation is prone to different interpretations than what is intended. Experience indicates that it would be impractical to take a doctrinaire view on which approach is better - rule-based or principle-based. As long as the basic objectives of

banking supervision and regulation, *viz.,* maintaining financial stability, preventing crisis and bank runs, protection of depositors' money, are met, it does not matter much as to whether they are achieved by any one or combination of regulatory approaches.

Safety Net

10.76 The safety net arrangements are often provided by the Governments with the public policy purpose of promoting economic growth and financial stability. Constructing and managing a proper 'bank safety net' - a set of policies designed to protect banks from adverse shocks - presents the Government with a unique set of challenges. These policies are designed to prevent or reverse losses in bank capital, widespread disintermediation from banks and bank failures. The safety net lowers the risk premium on bank liabilities, encouraging banks to operate with higher-risk portfolios and lower capital. The safety net thus enables banks to accumulate larger, riskier asset portfolios than would be possible in an intermediation process driven solely by market forces. In the absence of safety net, these higher lending risks would have to be reflected in some combination of higher deposit costs, more liquid asset holdings, or a larger capital base. While the nature of safety net arrangements can take different forms, they typically include a combination of: (i) bank access to a lender of last resort; (ii) final, riskless settlement of payment system transactions; (iii) prudential supervision of banks; and (iv) deposit insurance.

10.77 Deposit insurance system, which was first adopted in the US in the aftermath of severe banking crises during the Great Depression, has been adopted in many other countries. The pace of adoption of explicit deposit insurance system has accelerated in the last decade (Box X.7).

Box X.7
Growth of Deposit Insurance Systems

The first national deposit insurance system in the world was the Federal Deposit Insurance Corporation (FDIC), US, which was created in 1933 during the Great Depression to restore public confidence in the US financial system and to protect small depositors. At the time of its creation, the US was in the midst of the largest financial crisis in its history. During the first few months of 1933, 4,000 US banks suspended operations and bank runs had become commonplace. The issue then was how to restore confidence in the US banking system. Without a doubt, the FDIC helped restore public confidence in the US financial system. In 1934, the year after the FDIC was created, only nine banks failed compared to 4,000 bank closures during the nine months prior to its creation. Deposit insurance effectively ended bank runs in the US. The FDIC is widely viewed as one of the most successful legacies of that era.

The adoption of explicit deposit insurance systems around the world has steadily increased since the 1960s. The number of countries adopting explicit deposit insurance increased to 10 by 1970, 18 by 1980, 36 by 1990 and 70 by 2000. According to the International Association of Deposit Insurers (IADI), as on May 1, 2008, 119 countries either have, or are considering or planning, deposit insurance schemes, *i.e.,* 99 in operation, 8 pending, 12 planned or under serious study. The pace of adoption of explicit deposit insurance systems around the world has accelerated in recent years, as many countries moved to establish systems after experiencing financial crises, or witnessing crises in other countries. The Mexican peso crisis in the early 1990s served as an impetus to the adoption of deposit insurance systems in Central and South America. The Asian financial crisis in 1997 led to the establishment or strengthening of deposit insurance systems in Asia. A number of African countries established deposit insurance systems to strengthen financial stability and depositor protection. In 1994, the European Union adopted a directive requiring the establishment of deposit guarantee schemes in its member countries. The fall of the Soviet Union led many countries in central and eastern Europe to establish deposit insurance systems as part of their financial regulatory reform programs. China, for example, has been working for some time to establish a deposit insurance system as part of efforts to strengthen its banking sector. Other countries with deposit insurance systems under study, planned or pending include South Africa, Thailand, Egypt, Bolivia, Costa Rica, and New Zealand.

Furthermore, there are a number of countries with more than one deposit insurance system in operation (for instance, Austria, Canada, Germany, Italy and the United States). On the other hand, one deposit insurance system can cover more than one country (for instance, the Marshall Islands, Micronesia and Puerto Rico are insured by the US FDIC; and Cameroon, Central African Republic, Chad, Congo, Equatorial Guinea and Gabon will be covered by a single system).

References:

1. Gruenberg, Martin J. 2007. *The International Role of Deposit Insurance.* The Exchequer Club, Washington D.C., November.
2. Website of International Association of Deposit Insurers (IADI), www.iadi.org.

10.78 In recent years, however, design of deposit insurance has come under close scrutiny. Deposit insurance systems are designed to minimise or eliminate the risk that depositors placing funds with a bank will suffer. Deposit insurance can enhance stability by preventing bank runs. Bank runs are generally caused by a combination of two factors. First, loans, the primary asset of banks, are illiquid in that they cannot be sold quickly without a loss in value. Second, the ability of most depositors to withdraw their deposits either on demand or at short notice. Public concern about the safety of deposits - whether based on fact or only on rumour - can lead to bank runs. Similarly, concerns about one bank have at times led to concerns about others, resulting in so-called 'contagion runs'. No amount of prudential supervision can provide protection against runs that is equivalent to deposit insurance. Under a formalised deposit insurance programme, all institutions have access to depositor protection in the amounts specified by the coverage rules and the explicit rules of the deposit insurance programme provide added certainty regarding the resolution process for failed banks. This can be extremely important for maintaining stability when a banking crisis threatens. By providing a guarantee that depositors are not subject to loss, deposit insurance, on the positive side, removes the incentive to participate in a bank run. However, on the negative side, it eliminates the need for depositors to monitor bank risk-taking (Box X.8).

10.79 The design of deposit insurance system differs across countries (Box X.9). When countries choose not to introduce explicit deposit insurance, insurance is implicit. In either case, the benefits banks gain depend on how effective the government is at managing bank risk-shifting. Explicit deposit insurance schemes appeal increasingly to policymakers mainly on account of two factors. First, an explicit scheme supposedly sets the rules of the game regarding coverage, participants, and funding. Second, an explicit scheme is appealing in a political economy because it protects small depositors without immediate impact on the government budget.

10.80 Despite variations in deposit insurance systems internationally, the experience has shown that there are some general principles that can maximise the effectiveness of deposit insurance in promoting stable banking systems. The specific design features that work best will vary from country to country, but the key challenges always have to be addressed. First, the deposit insurance system should function within a suitable legal framework with appropriate accounting rules, prudential bank supervision, and consumer protection. Second, the deposit insurance system should be well understood by the public. Third, the deposit insurance coverage provided by the system must be adequate to provide assurance to most depositors. Fourth, the process for closing banks and promptly paying depositors and other claimants must also be efficient and clearly understood. Fifth, the deposit insurer must have access to information on insured institutions as necessary to monitor risk exposure. Sixth, most successful deposit insurance programmes must include reliable funding sources for timely action in the event of bank failures. Seventh, a deposit insurance system should establish standards for institutions to qualify for insurance such as capital, internal controls, and sound risk management. Finally, the deposit insurance system should have strong corporate governance.

10.81 In the context of the Northern Rock crisis, the coverage of deposit insurance scheme as also speed of settlement of claims have assumed importance. First, UK depositors were only fully covered up to 2000 pounds and then for 90 per cent of the next 33,000 pounds. As a result, many if not most, depositors stood to lose some money if a bank failed in the UK. Second, depositors were apparently concerned that their insured deposits would take up to six months to be paid due to UK's deposit insurance funding scheme. As a result, the UK had to extend full blanket coverage to all Northern Rock depositors. The UK subsequently increased full deposit insurance coverage nationally for all banks to 35,000 pounds. Thus, to reduce panic among the customers, the deposit insurance coverage for Northern Rock customers was hived off by the government to guarantee all deposits in addition to the cover already available. The biggest problem in dealing with Northern Rock was the absence of a mechanism for intervening pre-emptively in a bank in trouble to separate the retail deposit book – the insured deposits – from the rest of the bank's balance sheet. The ability to do this is central to the way the US and other systems operate, where the authorities are obliged to step in early - "prompt corrective action" - to protect depositors. One tool at their disposal, currently unavailable in the UK, is a special insolvency law for

Box X.8
Deposit Insurance - Advantages and Disadvantages

A well-designed, explicit deposit insurance system that is understood by the public is likely to be the most effective in helping to prevent bank runs, limiting the severity of financial crises and the resolution costs of bank failures, and contributing to overall financial stability. The advantage of deposit insurance is that the threat of bank runs is eliminated as long as the guarantees remain credible.

The public policy motivations behind the safety net can be divided into two categories. First, it may be desirable to assist distressed banks because of the social costs to bank borrowers of the decline in bank lending. This argument presumes that lost banks and bank capital attendant to adverse shocks cannot be replaced easily by the expansion of other banks, possibly because of the high cost of raising capital in the aftermath of an adverse shock (Calomiris and Wilson, 1998). From this perspective, the purpose of the safety net is to reverse undesirable shocks (whether exogenous or the result of endogenous runs) - to provide *ex post* bailouts. Second, the safety net is designed to promote the efficiency of the banking system by limiting endogenous declines in the banking sector (avoidable disintermediation and bank failures that are attributable to asymmetric information and bank runs). These motives for bank safety net policy have been termed as the 'bank-credit" motive and the 'run-prevention' motive (Calomiris, 1999).

The protection of private savings is another argument sometimes invoked to motivate the bank safety net. One version of this argument emphasises the lack of sophistication of small savers, and hence the desirability of creating a clearly riskless depository account. The small-saver argument is probably best interpreted as a means of providing political cover for the subsidies banks receive *via* the safety net.

While deposit insurance systems as well as the other elements of a financial safety net arrangement contribute to stability and thereby promote economic growth, they can also generate perverse effects. By providing protection to market participants, costs of pursuing riskier strategies are reduced and excessive risk-taking might be incentivised - the moral hazard problem. With their deposits protected against loss, insured depositors have little incentive to monitor bank risk-taking, and may simply seek the highest return possible on their deposits. Thus, deposits may tend to flow away from conservatively managed institutions towards those willing to pay higher returns by assuming more risk. Deposit insurance can thus exacerbate moral hazard by altering the normal risk-return trade-off for banks, reducing the costs associated with riskier investment strategies. These incentives are inherent to some degree in the nature of all types of insurance, and even the best structural designs for deposit insurance systems cannot be expected to eliminate moral hazard. Therefore, supervision and regulation of insured institutions as well as some degree of market oversight are essential for controlling moral hazard in order to maintain safety and soundness.

A safety net that is structured to prevent all failures is likely to stifle innovation and reduce the responsiveness of the banking industry to changing customer needs and other developments in the marketplace. To avoid such rigidity, an exit mechanism needs to be formulated and incorporated into the system. A properly balanced deposit insurance program can provide order in winding up the affairs of a failing institution, and can thus facilitate the establishment of an effective exit mechanism.

References:

1. Ketcha Jr, Nicholas J. 1999. "Deposit Insurance System Design and Considerations". *BIS Policy Paper*, No. 7, November.
2. Calomiris, Charles W. 1999. "Building an Incentive-compatible Safety Net". *Journal of Banking & Finance*, 23,1499-1519.
3. Calomiris, Charles W. and Wilson, Berry. 1998. "Bank Capital Portfolio Management: The 1930s Capital Crunch and Scramble to Shed Risk". *NBER Working Paper,* No. 6649, July.

banks. The UK Government has already initiated measures towards review of their existing deposit insurance system.

10.82 An important development in the pricing of deposit insurance systems has been to link deposit insurance premiums to the risk posed by a banking entity. One way to control a government's exposure to deposit insurance losses and to avoid a safety net subsidy is to require the banks to pay a higher deposit insurance premium as its risk of failure increases. Risk-based premiums are similar to market discipline in that both require banks to pay default-risk premiums on their liabilities, thereby reducing the incentive for excessive risk-taking. Moreover, risk-based insurance reinforces market discipline because it reduces a bank's incentive to substitute insured deposits for uninsured debt when its risk increases.

10.83 The pricing of deposit insurance can affect the capital of the banking industry and it may be

Box X.9
The Design of Deposit Insurance

The experience of boom-and-bust banking crises of the 1990s and the severity of problems that surfaced in the national banking systems implied that a heavy price was borne by the taxpayers to resolve the problems. That is why policymakers have become strongly concerned about finding the optimal design for their national deposit insurance systems (DIS). To perform its primary function of compensating the deposits lost in failed banks, deposit insurance needs a mechanism to raise financial resources for this purpose. A DIS funding mechanism should support the public trust in the deposit insurance by ensuring that there would be enough financial resources for a timely and full compensation of all the insured deposits of a failed bank. This condition is essential because the public trust in deposit insurance is what makes the system work.

The design of the funding mechanism of explicit DIS over the world varies in several dimensions. First, by the source of premium contributions, there are systems whose expenses are covered only from private sources (the vast majority of the world DISs) and those with public or mixed financing (in Chile, Lebanon, Oman and Paraguay). In addition, the private-source contributions to a DIS are typically calculated as a fraction of either the insured deposits (42 systems) or the total deposits (41 systems). The nations, which stick to the insured deposit basis, believe that only the insured depositors who get most benefits of deposit insurance should pay. Those, which use the total deposit basis, however, find it easier operationally and regard it as preventing speculative switches by the banks between the insured and the uninsured deposits.

Second, there are differences in the way a DIS agency is provided with additional liquidity when its own resources have been depleted. In some nations, for instance, the Czech Republic, El Salvador, Latvia, Peru, Sweden, *etc.,* the DIS can borrow from the government (budgetary accounts or the central bank). In other countries, for instance, Austria, Colombia, Finland, Hungary, Lithuania, Mexico, the DIS is entitled to borrow from the markets (from the member-banks or through bond issues) but can enjoy the government's guarantee on these borrowings. In some other nations, *viz*., Argentina, Cyprus, France, Gibraltar, Greece, Iceland, Netherlands, Switzerland, *etc*., the deposit insurance legislation requires the emergency liquidity to be raised from private sources. However, only in the case of Argentina, the legislation explicitly denies public support for the DIS. In other cases, either there is an implicit public support for the largest, core national banking institutions, for instance, France, Greece, *etc*., or the DIS is entitled to reduce the payout money *pro-rata* when the system is short of funds, *e.g*., Costa Rica and Morocco. Therefore, in general, one can observe a tendency in the world's DIS design to the provision of the public liquidity support to back the ordinary (private) liquidity sources of the system.

Third, the design of a DIS funding scheme may vary depending on the strategy of reserve accumulation. While some of the countries (such as Austria, Bahrain, Cyprus, Luxembourg and Switzerland employing the so-called *ex-post* funding arrangement) explicitly link the rate of aggregate contributions to the current funding needs of the system, the other countries vary the rate of contributions depending on the level of reserve fund accumulation (such as Bulgaria, the Czech Republic, Iceland, Kazakhstan, Mexico, Ukraine, Belgium, Finland, Macedonia, Spain, the USA, *etc.).* However, some DIS do not set an explicit link between the aggregate contribution rate and funding needs and rely on a steady rate *ex-ante* funding scheme (or on *ad-hoc* adjustments).

Finally, the DIS exhibit some differences in the way the accumulated reserve fund is managed. Whereas the overall trend is to invest the premium revenues in the liquid and safe assets, countries differ in their understanding of the liquidity and safety. Besides universally used investments in government securities, at least twelve systems hold money in the interest-bearing obligations of the central banks. Other thirteen systems (those of Bulgaria, Gibraltar, Greece, Hungary, the Slovak Republic, Taiwan, Tanzania, among others) permit partial investments of the reserves in the obligations of the member-banks, but two systems (those of Poland and Portugal) go further and allow member banks to keep a part of their required contributions on books under the condition of safe securities collateral. At the same time, any investments in the member-bank obligations are prohibited in the DIS of Estonia, Finland, and Guatemala.

In sum, the experience in the DIS funding arrangements shows a general tendency towards a privately funded system with the emergency liquidity support from the government and investments in Government securities.

References:

1. Frolov, Mikhail. 2004. "Funding Deposit Insurance: Designing Options and Practical Choices". *KUMQRP Discussion Paper Series*, DP2003-21, Keio University, Market Quality Research Project, February.
2. Laeven, Luc. 2002. "Pricing of Deposit Insurance". *Policy Research Working Paper,* No. 2871, World Bank, July.
3. Chan, Yuk-Shee; Greenbaum, Stuart I and Thakor, Anjan V. 1992. "Is Fairly Priced Deposit Insurance Possible?". *The Journal of Finance*, Vol.47, No.1, March.

tempting to use pricing as an instrument of smoothing harsh swings in the financial conditions. Thus, proponents of the steady-rate approach (*e.g.*, Blinder and Wescott, 2001; and Shaffer, 1997) stress that varying the contribution rate would become procyclical, *i.e.*, falling down when the banking conditions are strong and rising up when the conditions are weak. But smoothing the variations (or even making them counter-cyclical) would create an additional breathing space for the banks encountering high loan losses due to an economic downturn. Thus, steady-rate policy could lower the probability of bank failures and (provided that there are strong contagion and other external effects of bank insolvencies) help to minimise the overall costs of the deposit insurer. Another concern regarding the variable aggregate rates is that sharp jumps in the required premiums may result in an unfair burden for some bank customers, and in particular for small business borrowers who have no financial alternative to the bank credit. Some, however, argue that risk-based deposit insurance system mitigates the procyclical impact of risk-based prudential capital requirements. The New Basel Accord has raised concerns regarding potential harm of capital regulations during business cycle downturns. Because agency costs of issuing new equity are high when financial conditions deteriorate, banks tend to shrink their risk-sensitive assets in response to higher required capital ratios, a reaction that could exacerbate a downturn by cutting off credit to bank dependent borrowers. It has been shown that setting fair deposit insurance premiums is less procyclical than setting fair capital standards (Pennacchi, 2005). Hence, procyclicality can be reduced if regulation allows increased bank risk to be reflected in higher deposit insurance premiums, not just higher capital requirements.

10.84 In view of moral hazard problem, several countries over the years have switched over to the risk-based deposit insurance system. In 1995, only the US had risk-based deposit insurance system. However, now 29 countries follow the risk-based deposit insurance system. There is, however, no uniform basis for adjusting premiums, which are linked to different parameters such as asset quality/capital adequacy and Capital Adequacy, Asset Quality, Management, Earnings, Liquidity, Systems and Control (CAMELS) rating (Table 10.3).

10.85 To sum up, several significant developments have occurred in the last few years in the area of regulation and supervision. First, in some countries such as the UK, supervision has been separated from the central bank partly due to the emergence of financial conglomerates that are seen to need unified regulation and supervision, and partly due to perceived conflict of interest between monetary policy and regulation and supervision of banks. However, the failure of Northern Rock has raised serious issues about the co-ordination mechanism between the supervisory authority and the lender of the last resort, and desirability of separation of supervision from the central bank. There are differing views on both sides and no consensus has emerged on what works better. Second, on the issue of single or multiple regulator/s for various types of financial firms, there is also no clear and conclusive evidence that one is better than the other. Experience shows that there are all kinds of models. For instance, in some countries, regulation of banking and insurance is combined in one agency, while the securities market regulation is with some other agency. In some other countries, regulation of banking and securities markets is combined in one agency, while insurance sector is with some other agency. At least, 37 countries now have combined regulators for banking, insurance and securities markets. The US has followed a system of umbrella supervision, while some other countries have a system of lead regulation. Australia has followed objective-based regulation. Third, principle-based supervision has been adopted by the FSA in the UK. It is perhaps the only country in the world to have adopted a principle-based approach. However, it has not been possible for the FSA to get away from detailed rules and is reported to have a rule book having more than 8,000 pages. Four, greater emphasis is now also being placed on market discipline to complement supervision, although its effectiveness depends on the robustness of the financial infrastructure that underpins financial transactions. Finally, in recent years, the number of countries adopting deposit insurance system has expanded significantly. Also, in the last few years, several countries have switched over to the risk-based deposit insurance system. However, on most of these aspects, it is difficult to take a doctrinaire view for at least two reasons. One, it has not been possible to establish the superiority of any one approach/structure over the other in a conclusive manner. Two, in different countries, different approaches/structures have evolved over time depending on the size and nature of the financial system and the prevailing conditions.

Table 10.3: Countries with Risk-based Premium under Explicit Deposit Insurance System

Country	Assessment Base	Annual Premium (% of assessment base)	Basis for adjusting Premiums
Argentina	Insured deposits	0.3 plus 0.36-0.72	CAMEL like ratios and risk assets
Belarus	Household deposits	Risk based: 0 for two state banks. 0.1% to 0.3% of household deposits for other banks, depending on the bank's household deposits to capital ratio	–
Bolivia	Deposits	–	–
Bulgaria	Insured deposits	Risk based to 0.5 per cent	–
Canada	Insured deposits	0.04 to 0.33	CAMEL like ratios, asset concentration, regulatory rating and adherence to standards
Colombia	Insured deposits	Risk-adjusted	Independent rating (is pending)
Ecuador	Deposits	0.65 +risk adjusted	Risk rating
El Salvador	Deposits	0.1 (can be raised to 0.3) + risk-based mark up	Sub-standard securities
Finland	Insured deposits	0.05 to 0.3	Solvency ratio
France	Deposits plus 1/3 loans	Risk-adjusted	CAMEL like ratios
Germany	Insured deposits	0.008 (statutory scheme); 0-0.1 (private sector)	Risk category and length of membership
Hungary	Insured deposits	0.16-0.19 (decreasing by size)+ risk-adjustment	Capital adequacy
Italy	Insured funds	Ex post, adjusted for size and risk	CAMEL and maturity transformation
Kazakhstan	Insured deposits	0.125-0.375	CAMEL like ratios
Macedonia	Insured deposits	0.01-0.025	CAMEL like ratios
Marshall Islands	Deposits	Risk based, 0 to 0.27 per cent	–
Mexico	Deposits & other liabilities	0.4-0.8	Determined by Ministry of Finance
Micronesia	Deposits	Risk based, 0 to 0.27 per cent	–
Norway	Risk-weighted assets and deposits	0.5 of risk-weighted assets and 0.15 of deposits	Risk-weighted assets
Peru	Insured deposits	0.65 plus risk-adjustment	Determined by supervisor
Poland	Risk-weighted assets and deposits	Up to 0.4	Risk-weighted assets
Portugal	Insured deposits	0.08 to 0.12	CAMEL like ratios
Romania	Insured deposits	0.3 to 0.6	CAMEL like ratios
Sweden	Insured deposits	0.5 (maximum)	Capital adequacy
Switzerland	Gross earnings and balance sheet items	Ex post, on demand, varies	Earnings and some discretion
Taiwan	Insured deposits	0.05-0.06	Capital Adequacy Ratio and early warning system
Turkey	Insured savings deposits	1.0-1.2	Capital adequacy
United States	Domestic deposits	0.00-0.27	CAMEL like ratios
Uruguay	–	–	–

Sources: 1. Laeven, Luc. 2002. "Pricing of Deposit Insurance". *Policy Research Working Paper No.2871*, World Bank, July.
2. Demirguc-Kunt, Asli, Karacaovali and Luc Laeven. 2005. "Deposit Insurance around the World: A Comprehensive Database". P*olicy Research Paper No.3628*, World Bank, June.

IV. EXTANT REGULATORY AND SUPERVISORY FRAMEWORK IN INDIA

Regulatory Framework for Scheduled Commercial Banks

10.86 The regulation and supervision of commercial banks in India has traditionally been carried out by the Reserve Bank as mandated in the Banking Regulation Act, 1949 and the Reserve Bank of India Act, 1934. The main elements of regulatory framework, which has evolved from time to time, comprise branch authorisation policy, prudential norms, corporate governance, foreign investment norms, priority sector norms, and statutory requirements, *viz.*, cash reserve ratio (CRR) and statutory liquidity ratio (SLR).

10.87 The minimum statutory requirements for setting up new banks in India are stipulated in the Banking Regulation Act, 1949. The Reserve Bank spells out the eligibility criteria for entry of new banks as and when fresh applications from prospective entrants are invited.

10.88 With the objective of liberalising and rationalising the branch authorisation policy, a revised policy framework was put in place in September 2005, which was consistent with the medium term corporate strategy of banks and public interest. In terms of this policy, the extant system of granting authorisations for opening individual branches from time to time was replaced by a system of giving aggregated approvals, on an annual basis, through a consultative and interactive process. Further, in terms of the revised policy, banks are not required to approach regional offices of Reserve Bank for licences for opening branches and off-site automated teller machines (ATMs). Notwithstanding the above system of submission of annual branch expansion plans by banks, they are free to approach the Reserve Bank for any urgent proposals regarding opening of branches, especially in rural/under-banked areas (districts) anytime during the year, in addition to the approvals given under the annual plan. Further, banks are not required to obtain the Reserve Bank's prior permission for installation of ATMs installed at authorised branches/extension counters (on-site ATMs). However, prior approval of the Reserve Bank is required for installation of off-site ATMs. The branch authorisation policy for Indian banks is also applicable to foreign banks, subject to certain conditions.

10.89 Banks are subject to prudential norms prescribed by the Reserve Bank on income recognition, asset classification and provisioning. These norms have been strengthened over time to match the international standards. Banks are required to classify their assets into four broad categories, *viz.*, (i) standard assets, (ii) sub-standard assets, (iii) doubtful assets; and (iv) loss assets. Other than standard assets, the remaining three categories are non-performing assets (NPAs). An asset is classified as NPA if the instalment of principal or interest remains overdue for a period of more than 90 days. A sub-standard asset is one which has remained NPA for a period less than or equal to 12 months. An asset is treated as doubtful if it remains in sub-standard category for more than 12 months. A loss asset is defined as the one where the loss has been identified by the bank or internal or external auditors or the Reserve Bank inspection but the amount has not been written off wholly. Banks are required to make a general provision of 10 per cent on total outstanding for sub-standard assets. However, in case the sub-standard exposures are 'unsecured', they would attract a provision of 20 per cent. The provisioning requirements vary from 20 to 100 per cent on secured portion of advances classified as 'doubtful' depending on the period for which an asset has remained 'doubtful', 100 per cent on unsecured portion of doubtful assets and 100 per cent on loss assets. Apart from specific provisioning for NPAs, banks are also required to make general provisioning for standard assets at the rate of 0.25 per cent to 2 per cent for the funded outstanding on a global loan portfolio basis. The standard assets provisioning is prescribed at 0.25 per cent for direct advances to agricultural and small and medium enterprise (SME) sectors; at 1 per cent for residential housing loans beyond Rs.20 lakh; at 2 per cent for advances to specific sectors, like personal loans (including credit card receivables), loans and advances qualifying as capital market exposures, commercial real estate loans, loans and advances to non-deposit taking systemically important non-banking financial companies (NBFCs); and at 0.40 per cent for all other advances.

10.90 The Indian banks with international presence and foreign banks operating in India currently follow the Basel II capital adequacy norms which came into force from end-March 2008. They are required to follow the standardised approach for credit risk and basic indicator approach for operational risk (see Chapter V for details). All other banks on Basel I are required to migrate to Basel II framework by end-March 2009. As against the international norms of capital to risk-weighted assets ratio (CRAR) of 8 per cent, the CRAR for banks in India has been stipulated at 9 per cent for banks both under Basel I and II.

10.91 In view of better risk management, banks in India are required to limit their exposure to different industries, sectors, NBFCs, individual borrowers, group borrowers and the capital market. As per the extant norms, the credit extended to a single borrower should not exceed 15 per cent of capital funds. In the case of a group borrower, this limit is fixed at 40 per cent of the total capital funds. In addition, banks may, in exceptional circumstances, with Board's approval consider enhancement of the exposure to a borrower/group of borrowers by 5 per cent of capital funds. Banks can extend an additional 5 per cent and 10 per cent to a single borrower and a group of borrowers, respectively, if the additional amount is for financing infrastructure. Further, banks

are also advised to limit their exposure to specific sectors such as textiles, jute, tea, among others, in such a manner that the risk is evenly spread over the sectors. Similarly, the exposure of the bank to a single NBFC/NBFC-Asset Financing Company (AFC) is fixed at 10 per cent/15 per cent, respectively. In this case also, an additional 5 per cent is permissible if the additional amount is going to finance infrastructure. The exposure of banks to the capital market in all forms is fixed at 40 per cent of its net worth as on March 31st of the previous year. However, within this overall ceiling, bank's direct investment in shares, convertible bonds/debentures, units of equity-oriented mutual funds and exposure to venture capital funds (VCFs) should not exceed 20 per cent of its net worth.

10.92 Banks can invest in a variety of instruments such as government securities, other approved securities, shares, debentures and bonds, subsidiaries/joint ventures and other instruments like commercial paper and mutual fund units, among others. Banks are required to classify their entire investment portfolio into 'held-to-maturity' (HTM), 'available for sale' (AFS) and 'held for trading' (HFT) categories. Banks are required to follow the prudential norms for the classification, valuation and operation of investment portfolios as laid down by the Reserve Bank from time to time. As per the extant guidelines, banks are allowed to frame their own investment policies stating clearly the broad investment objectives to be followed while undertaking transactions on their own and on behalf of clients, procedures to be followed by various functionaries, prudential limits and reporting system.

10.93 In order to attain a well-diversified ownership structure, no single entity or a group of related entities can have shareholding or control, directly or indirectly, in excess of 10 per cent of the paid-up capital of a private sector bank. A bank cannot have shareholding in excess of 5 per cent in any other bank in India. Private sector banks are required to undertake a process of due diligence to determine the suitability of the person for appointment/re-appointment as a director on the Board based on qualification, expertise, track record, integrity and other 'fit and proper' criteria and also obtain necessary information and declaration from the directors for the purpose. Fit and proper criteria are also applied to elected directors on the boards of nationalised banks under Banking Companies (Acquisition and Transfer of Undertakings) Act, 1970/ 1980 and associate banks of State Bank of India (SBI) under the State Bank of India (Subsidiary Banks) Act, 1959. Foreign investment limit from all the sources in private banks cannot exceed 74 per cent. Foreign banks are permitted to operate in India through one of the three channels, *viz*., (i) branch/es; (ii) a wholly owned subsidiary; or (iii) a subsidiary with aggregate foreign investment up to a maximum of 74 per cent in a private bank.

10.94 The Banking Regulation Act provides the legal framework for the merger and amalgamation of banking companies in India. There are two types of amalgamations, *viz*., voluntary and compulsory. Under the voluntary amalgamation, the amalgamation policy has to be approved by two-third of the shareholders of both the banking companies and approved by the Reserve Bank. Under the compulsory amalgamation, the Central Government, on an application made by the Reserve Bank can announce moratorium on a banking company for a certain period. During the period of moratorium, the Reserve Bank is required to prepare an amalgamation/reconstruction plan. The plan is submitted to the Government of India and if approved by the Government, amalgamation comes into force (see Chapter VIII for details).

10.95 Banks in India are required to meet the prescribed targets for lending to the priority sector. The overall ceiling on priority sector lending has been fixed at 40 per cent and 32 per cent for the domestic and foreign banks, respectively. These targets are calculated as a percentage of adjusted net bank credit (NBC) or credit equivalent amount of off-balance sheet exposures, whichever is higher.

10.96 All commercial banks, including the branches of foreign banks functioning in India, local area banks and regional rural banks are covered under the Deposit Insurance Scheme. All eligible co-operative banks as defined in Section 2(gg) of the Deposit Insurance and Credit Guarantee Corporation (DICGC) Act are covered under the Deposit Insurance Scheme. Under the provisions of Section 16(1) of the DICGC Act, the insurance cover is limited to Rs.1,00,000/- only per depositor for deposits held in 'the same capacity and in the same right' at all the branches of the bank taken together. The DICGC insures all bank deposits such as savings, fixed, current, recurring, except the deposits of (i) foreign Governments; (ii) Central/State Governments; (iii) State Land Development Banks with the State co-operative banks; (iv) inter-bank deposits; (v) deposits received outside India; and (vi) deposits specifically exempted by the DICGC with the previous approval of the Reserve

Bank. The DICGC collects insurance premia from insured banks for administration of the deposit insurance system. The premia to be paid by the insured banks are computed on the basis of their assessable deposits at the flat rate of 10 paise per Rs.100 assured. The premium paid by the insured banks to the DICGC is required to be borne by the banks themselves and is not passed on to the depositors.

10.97 The asset-liability management (ALM) framework is in place to guard against asset liability mismatches. It is complemented by a comprehensive risk management system to take care of credit risk, market risk and operation risk. A system of prompt corrective action (PCA), involving initiation of certain structured actions in case of banks which hit trigger points in terms of three parameters, *viz.*, (a) CRAR; (b) ratio of net NPAs to net advances; and (c) return on assets, is in place.

10.98 Banks are required to maintain CRR which is currently 9.0 per cent of net demand and time liabilities, and the SLR which is currently 25 per cent of their net demand and time liabilities. Banks are free to decide their deposit interest rates, except the saving deposit interest rate, which has been fixed at 3.5 per cent. Banks are also free to decide their lending rates, except those pertaining to exports, small loans up to Rs. 2 lakh and the differential rate of interest (DRI) scheme.

Supervisory Framework for Scheduled Commercial Banks

10.99 The supervisory jurisdiction of the commercial banks laid down in the Banking Regulation Act, 1949 requires the Reserve Bank to inspect the banking companies[2] both inside and outside India. Such powers, however, are exercised by the Board for Financial Supervision (BFS) constituted as a Committee of the Central Board of Directors of the Reserve Bank in 1994 (Box X.10).

10.100 As on March 31, 2007, the BFS had supervisory jurisdiction over 82 scheduled commercial banks (52,036 branches), 1,813 urban co-operative banks (7,453 branches), 12,968 NBFCs, 7 financial institutions (FIs) and 6 primary dealers. The BFS was assisted by 3,326 officials (Department of Banking Supervision – 1,037; Department of Non Banking Supervision – 456; Internal Debt Management Department – 44; Department of Banking Operations and Development – 330; Rural Planning and Credit Department – 751; and Urban Banks Department -738).

10.101 The supervisory framework that operates under the aegis of the BFS has complex and multiple objectives. First, the basic strategy of the BFS is to provide an integrated supervisory focus on the financial system. In the individual sectors, while the supervision of the individual banks/FIs/NBFCs is the primary target, an equally important objective of the BFS is the intra-sector integrated supervision.

10.102 At present, the supervisory approach of the Reserve Bank in respect of commercial banks is to exercise oversight through two tracks – formal and informal. While the formal track comprises on-site inspection and off-site monitoring, the informal/ unstructured approach includes interactions with the banks' executives at the senior and top management level, including those in the quarterly informal discussions with the Chief Executive Officers (CEOs) of the banks, market intelligence and *ad hoc* collection of information, among others.

10.103 The basic objective of supervision of banks is to assess the solvency, liquidity and operational health of banks. The on-site inspection of banks referred to as Annual Financial Inspection (AFI) is conducted annually (except in the case of SBI in which case it is done once in two years). A team of inspecting officers from the Reserve Bank led by the Principal Inspecting Officer (PIO) visits the bank and conducts the inspection based on the CAMELS, the modified version of internationally adopted CAMEL model to suit the needs of the Indian banking system. The focus of the AFI in recent years has been on supervisory issues relating to securitisation, business continuity plan, disclosure requirements and compliance with other existing guidelines. In order to have an overall perspective, operating units such as branches, treasury units, dealing rooms and other offices such as controlling offices of the bank throughout the country are also taken up for inspection generally by additional teams. The operating units and other offices are selected through sampling techniques largely to cover the major part of the banks' credit portfolio. Such on-site inspections mostly involve examination of the

[2] For the purpose of this section, the expression "banking company" shall include-
(i) in the case of a banking company incorporated outside India, all its branches in India; and
(ii) in the case of a banking company incorporated in India- (a) all its subsidiaries formed for the purpose of carrying on the business of banking exclusively outside India; and (b) all its branches whether situated in India or outside India

Box X.10
Board for Financial Supervision and its Major Initiatives

The Board for Financial Supervision (BFS) was constituted in November 1994 as one of the Committees of the Central Board of Directors of the Reserve Bank. The Board is drawn from the members of the Central Board of the Reserve Bank with the Governor as Chairman and one of the Deputy Governors as full time Vice-Chairman. Other Deputy Governors of the Reserve Bank are its *ex-officio* members and four non-official directors of the Central Board of Directors of the Reserve Bank are co-opted as members.

The BFS functions under the RBI (BFS) Regulations, 1994. The provisions of these regulations are in addition to and not in derogation of the RBI General Regulations, 1949. The Board exercises the powers of supervision and inspection under the RBI Act, 1934 and the Banking Regulation Act, 1949 in relation to the different sectors of the financial system. It also performs other functions and exercises powers as specified by the Central Board of Directors from time to time. Three members of whom one has to be the Chairman or Vice Chairman form a quorum for transacting the business of the Board. The Board submits a report to the Central Board every half-year. The Board ordinarily meets at least once every month. As of June 30, 2008, the Board has held 161 meetings.

The BFS was initially given the mandate for supervision of commercial banks, FIs and NBFCs. Subsequently, urban co-operative banks and primary dealers were also brought under the purview of the BFS. The BFS considers inspection reports and other supervisory issues placed before it by the supervisory and regulatory departments. Subject to the provisions of the RBI (BFS) Regulations, 1994, an Advisory Council consisting of five members, eminent in the fields of law, accountancy, banking, finance and management for tendering advise to the BFS was constituted. When the tenure of the Council expired in March 1998, the need for the continuation of the Advisory Council was reviewed and it was decided to discontinue the institutional arrangement in the form of Advisory Council.

The Board has the powers to constitute sub-committees as deemed necessary to assist it in its work. Accordingly, the BFS constituted an Audit sub-Committee in January 1995 with the Vice Chairman of BFS as the Chairman of the sub-Committee and two non-official members of the BFS as other members. The sub-Committee has been reconstituted from time to time. The main focus of the Audit sub-Committee is on up-gradation of the quality of the statutory audit and concurrent audit/internal audit function in banks, NBFCs and FIs, fixing remuneration, approval of the panel of the statutory auditors and branch auditors as also the accounting and the disclosure standards. The Audit sub-Committee meets as and when detailed examination on these issues is required. The Audit sub-Committee of the BFS has reviewed the system of concurrent audit, norms of empanelment and appointment of statutory auditors, the quality and coverage of statutory audit reports, and the important issue of greater transparency and disclosure in the published accounts of supervised institutions.

Prior to the constitution of the BFS, the supervision of commercial banks was mainly through the on-site inspections conducted at periodical intervals. The BFS, in its first meeting, approved a new strategy of supervision, the key elements of which included (i) the setting up of an off-site surveillance function based on in-house monitoring of banks and other credit institutions; (ii) building a "memory" on all supervised institutions and setting up a market intelligence and surveillance unit; (iii) restructuring the system of bank inspections in terms of focus, process, reporting and follow up; (iv) strengthening the statutory audit in banks and enlarging the role of auditors in the supervisory process including using them as agents; and (v) strengthening the internal defences within the supervised institutions such as corporate governance, internal control and audit function, and management information and risk control systems, as an extension of the task of supervision. The BFS has taken several other initiatives to strengthen the supervisory framework (Annex X.1).

operating processes and the transactions. For the purpose of sampling, reported incidents of fraud, level of NPAs and exposure to sensitive sectors, among others, are also factored. Major findings of these inspections are documented separately and communicated to banks for necessary rectification. At the same time, the findings are taken by the Inspection Team of the bank as critical inputs for the inspection of the bank as a whole. The timeframe for carrying out the inspection of the corporate head office of the bank generally ranges between two to three months. The inspection report is generally finalised within four months.

10.104 On completion of the inspection, the inspection report is issued to the bank for perusal, corrective action and compliance. Further, a detailed discussion on the findings of the inspection and the road ahead is laid down by the Reserve Bank with the CEO/Chairman-cum-Managing Director (CMD) and other senior functionaries of the bank and a monitorable action plan is decided and/or supervisory action is taken, wherever warranted. The major findings recorded in the inspection report along with the responses of the CEO/CMD of the bank are placed before the BFS. Based on the findings of the inspection and other inputs, a supervisory rating is assigned to the bank.

10.105 All inspection findings on banks and FIs are brought before the BFS in the form of bank/FI-wise memorandum for review and directions. Based on the inspection observations, the BFS can direct placing of weak banks/certain banks with critical concerns under a monthly monitoring mechanism for more focused and consistent monitoring and follow-up. The progress in compliance to the issues plaguing these banks is reviewed by the BFS on a monthly basis till the bank/s is/are brought out of the monthly monitoring mechanism. A "prompt corrective action" framework was also operationalised under the aegis of the BFS in 2002 so as to trigger corrective action on banks at the earliest possible sign of weakness and to prevent any major deterioration in a bank's performance.

10.106 Off-site monitoring involves assessment of the financials at quarterly intervals and in some cases at monthly intervals. The off-site surveillance and monitoring system (OSMOS), which was set up in 1995 as part of crisis management framework for early warning system and as a trigger for on-site inspections of vulnerable institutions, is based on the prudential supervisory reporting framework covering capital adequacy, asset quality, loan concentration, operational results, connected lending, profile of ownership, control, management, liquidity and interest rate risks. The primary objective of the off-site returns is to estimate the financial condition of the banks in between on-site examinations of banks and to set priorities for the allocation of scarce supervisory resources.

10.107 The current supervisory strategy of the Reserve Bank in respect of the commercial banks is to make the supervisory process as continuous as possible even while continuing with the CAMELS model of on-site supervision, which is an annual evaluation of the financial health of the banks. To render the process continuous, banks are required to submit quarterly and in some cases monthly returns in structured format on their capital adequacy position *vis-à-vis* risk weighted assets, liquidity position, large exposures and non-performing assets. These returns are analysed and supervisory concerns are conveyed to the banks for taking action as appropriate. These data and the observations arising out of the analysis are used as inputs by the inspection teams at the time of inspection of the head office or the corporate office of the banks.

Regulatory and Supervisory Framework for Regional Rural Banks

10.108 Regional Rural Banks (RRBs) are established by notification of the Government of India under the Regional Rural Banks Act, 1976. As such, these banks do not require any license from the Reserve Bank for the conduct of banking business. The capital for these banks is contributed by the Union Government, the State Government and a sponsor bank in the ratio of 50:15:35. While the RRB itself does not require a license, opening of branches requires license from the Reserve Bank. The regulation of these banks is vested in the Reserve Bank by virtue of powers vested in it under the Banking Regulation Act, 1949 and the Reserve Bank of India Act, 1934. The supervision of these banks has been entrusted to National Bank for Agriculture and Rural Development (NABARD) under Section 35(6) of the Banking Regulation Act, 1949, without prejudice to the similar powers of the Reserve Bank.

10.109 While income recognition and asset classification norms are applicable to RRBs as in the case of commercial banks, capital adequacy norms have so far not been made applicable to them. However, RRBs are required to disclose their capital adequacy in their balance sheets with effect from the year ended March 31, 2008. As compared with requirement of 40 per cent for domestic commercial banks, RRBs are required to lend 60 per cent of their advances to the priority sector. However, there are no penal provisions for not achieving the norms.

Regulatory and Supervisory Framework for Urban Co-operative Banks

10.110 The urban co-operative banks (UCBs) along with other co-operative banks were brought under the regulatory ambit of the Reserve Bank by extending the provisions of the Banking Regulation Act, 1949 with effect from March 1, 1966. As per the statutory provisions, while banking related activities such as issue of license to start new banks/branches, matters relating to interest rates, loan policies, investments, prudential exposure norms *etc*. are regulated and supervised by the Reserve Bank, powers in connection with the issues such as incorporation, registration, management, amalgamation, reconstruction or liquidation are exercised by the Registrar of Co-operative Societies of the State concerned in terms of the respective Co-operative Societies Act of the State and Central Registrar in the case of Multi-State banks.

10.111 The current regulatory regime for UCBs is based on the 'Vision Document' released in March 2005, which, *inter alia,* provides for a two track differentiated regulatory framework for UCBs categorised as Tier I and Tier II based on deposit level and areas of operation. In order to achieve the objective

of rationalising the regulatory and supervisory framework for UCBs, they were classified as Tier I banks (unit banks, *i.e.*, banks having branch/es within a single district, with deposits up to Rs.100 crore) and Tier II banks (*i.e.*, all other UCBs). While both Tier I and Tier II UCBs are subject to the same capital adequacy requirement and prudential guidelines on exposure norms, Tier I UCBs are subject to stricter loan impairment norms, provisioning requirements on standard advances, enhanced risk weight on commercial real estate advances and disclosures in their balance sheets.

10.112 The 'Vision Document' also provides for Memoranda of Understanding (MoU) between the Reserve Bank and the other regulators, *viz.*, the State Governments and the Central Registrar of Co-operative Societies (CRCS). The MoU is a working arrangement between the Reserve Bank and the State Government/ CRCS to ensure that the difficulties arising out of duality of control over UCBs are suitably addressed and resolved. In terms of the MoU, the Reserve Bank undertakes to constitute a State Level Task Force for Urban Co-operative Banks (TAFCUB) with representatives from the Reserve Bank, State Government and the urban co-operative banking sector for identification and drawing up of a time bound action plan for the revival of potentially viable UCBs and providing non-disruptive exit route for non-viable UCBs. The MoU also seeks to encourage and facilitate human resources development and information technology (IT) initiatives in UCBs. So far, nineteen State Governments comprising 1,597 UCBs have entered into MoU with the Reserve Bank, thereby covering 90.0 per cent of the total number of UCBs representing 95 per cent of the total deposits of the sector.

10.113 In order to take appropriate supervisory steps based on banks' financial conditions, banks are classified into four grades, *viz.*, Grade I, II, III and IV on the basis of capital adequacy, level of NPAs, history of profit/loss and, statutory inspections or scrutiny of books of accounts of UCBs conducted by the Reserve Bank[3]. The measures taken by the Reserve Bank insofar as the banks in Grades II, III and IV are concerned can be grouped broadly into two categories; (a) those aimed at strengthening the financial position of the banks; and (b) those aimed at limiting the growth of assets and liabilities. The periodicity of on-site inspections of UCBs is as follows: once in a year for scheduled UCBs; once in a year for Grade III/IV non-scheduled UCBs; once in 18 months for Grade II banks; and once in two years for other banks. A system of graded supervisory approach is followed while taking supervisory action in respect of Grade III and IV banks in non-MoU States. The Reserve Bank has also evolved a supervisory rating system based on CAMELS methodology to assess the aggregate strength and soundness of the urban co-operative banking system as a whole.

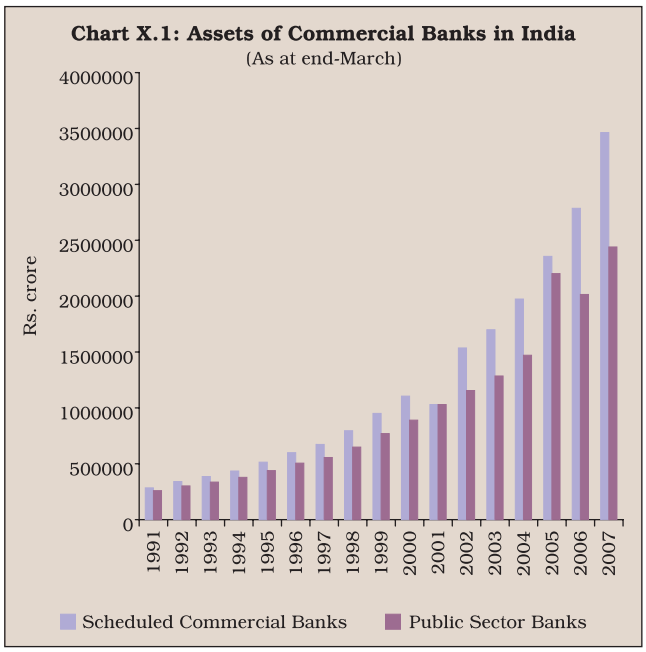
V. REGULATORY AND SUPERVISORY CHALLENGES

10.114 The primary objective behind regulation and supervision of banks has been to promote the safety and soundness of the financial system. The banking sector in India has witnessed a rapid growth in terms of volumes and spread of business. The range of products that banks deal in has also expanded substantially. The domestic banking system is increasingly getting integrated with the global banking system. The distinctions among banks and other financial service providers are also getting increasingly blurred. All these pose new challenges for the banking regulator in India.

Supervisory Challenges Posed by the Expanding Banking Sector

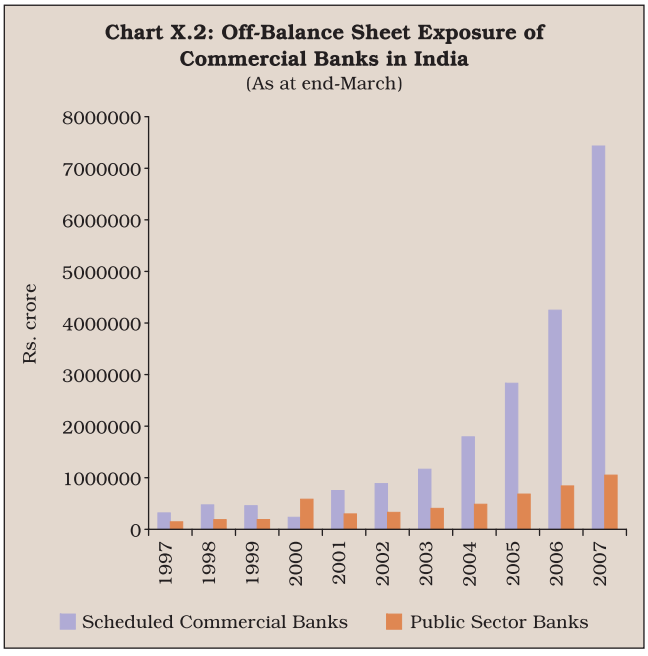
10.115 Progressive de-regulation, cross-border dealings and globalisation, wider range of products and services, and improvement in technology and communication over the years have brought about several changes in the operations of banks – both balance sheet and off-balance sheet. The size of the balance sheet of banks in India has expanded significantly, especially in the last few years (Chart X.1).

[3] Sound banks having no supervisory concerns are classified as Grade I. Banks meeting any one of the following parameters are classified under Grade II (problem banks): (i) CRAR of one per cent below the prescribed norms, or (ii) net NPAs of 10 per cent or more, but below 15 per cent, or (iii) incurred a net loss for the previous financial year, or (iv) defaults in the maintenance of CRR/SLR in the previous financial year and/or there is more or less a continuous default in maintenance of CRR/SLR during the current year. Banks meeting any two of the following conditions are classified under Grade III: (i) CRAR of less than 75 per cent of the minimum prescribed but 50 per cent or above the level required; or (ii) net NPA of 10 per cent or more, but less than 15 per cent; or (iii) incurred net losses for two years out of the last three years. Banks meeting the following conditions are classified under Grade IV: (i) CRAR of less than 50 per cent of the prescribed limit, and (ii) net NPA at 15 per cent or more or incurred net losses for the last three consecutive years.



10.116 Along side assets, off-balance sheet exposures of scheduled commercial banks have also increased sharply over the years (Chart X. 2).

10.117 The risks faced by banks have also increased manifold. Banks have spread their presence geographically in terms of branch networks organically and through third party service providers inorganically. Aided by technology and telecommunication, banks have reached out to millions of customers through the internet, mobile



connectivity and ATMs at places even where they may not have physical presence. Number of ATMs increased by 53.5 per cent from 17,642 at end-March 2005 to 27,088 at end-March 2007. With each new customer added to the banks' books either on the liability side or the asset side or off-balance sheet through contracts for some financial service, banks' business is expanded. There has been increasing use of third party service providers by the banks for transaction processing, data processing, document processing and storage, loan application processing and internal audit, among others. Indian banks are also venturing overseas and setting up offices/ branches in more and more countries. Banks have also expanded beyond the national boundaries to set up branches abroad. Several foreign banks are showing willingness to set up office in India. Besides the geographical expansion, banks have expanded across the sectors of the financial system through product innovations, cross-selling of products and financial conglomeration. The business and risk profile of banks is also undergoing a change with more and more banks expanding into newer areas. The number of subsidiaries set up by banks, which were 37 at end-March 1998, increased sharply to 131 by end-March 2008. Banks have also, of late, been bringing in new products/innovative financial instruments. The expansion of banks across geographical locations and products has not only added complexity to their operations but has also tended to make their operations somewhat obscure.

10.118 The rapid expansion of the banking sector poses a challenge to the Reserve Bank/BFS. Given the limited supervisory resources, it becomes a challenging task to exercise oversight on the expanding banking sector. This is especially because the Reserve Bank subjects all the banks to annual inspections under the CAMELS model and inspects a sizeable number of branches, controlling offices and other operating units of each bank in every inspection cycle in a very extensive manner, replicating the CAMELS model as far as applicable.

10.119 Apart from the expanding size, the increasing complexity of operations also poses a challenge. Over and above the traditional skills, the supervisor is required to possess specialised skills relating to financial risk management. The growing complexity also requires supervisors to possess quantitative skills to examine/validate various risk models evolved/ adopted by the banks. The demand for supervisory resources, which are already scarce, is expected to rise once Basel II becomes fully operational. The need

for specialised skills both by the Reserve Bank and banks is expected to increase competition for skilled persons between the supervisor and the industry. Therefore, attracting and retaining the skilled staff would be a major challenge that the Reserve Bank would have to contend with.

10.120 In view of the increased competition, the supervisor would need to make difficult choices as to how much it should invest in which staff and for what skill, given the increased probability of losing supervisors with enhanced skills. Some supervisory agencies have evolved a strategy of not recruiting highly skilled people but people having potential to develop skill. As the scheme operates, they recruit ordinary graduates but later encourage and finance them to acquire professional qualification from universities through tie-ups. While this removes the constraints supervisors would otherwise face in the open market recruitment for skill, the risk of losing the qualified personnel to the market subsequently still remains a real one.

10.121 These solutions are, however, not easy to adopt as the public policy agencies need legal and political mandate for such engagements. Moreover, the outside staff will have to adapt to the regulator's work culture and acquire regulator's domain knowledge before they appreciate the regulatory objectives and deliver the regulatory outputs as needed. Also, inducting the external resources, *albeit* for short-term, in itself is a costly process. Besides, the real utility of the outcomes insofar as supervisory objectives are concerned is yet to be established.

10.122 Many jurisdictions all over the world have sought to rationalise the supervisory processes to address the paucity of resources *vis-à-vis* increasing supervisory responsibility. The Core Principles of Bank Supervision issued in October 2006 explicitly set out in Principle 24 that the supervisory resources should be allocated as per the risk profiles of the supervised entities. The risk-based approach to supervision aims at differentiating banks in accordance with their risk profiles and induces a flexible approach in deciding the quantum of supervisory attention and application of supervisory tools. To be specific, the concept of risk-based supervision (RBS) moves from a broad-based, uniform, annual, on-site inspection focused on verification of transactions and asset valuation to a discriminatory cycle of supervision focused on targeted areas of operations identified by the risk perceptions of the supervisor. Another characteristic of this supervisory process is that it mostly does not target the evaluation of the financial health or soundness of the supervised entity unless there are clear circumstances and information indicating significant deterioration in the health of the institution. Therefore, generally, the supervision is mostly confined to the examination of the management and control processes with certain samples of transaction testing at varying degrees, depending on the area under examination. Many jurisdictions have adopted the RBS model to achieve optimum allocation of resources.

10.123 In India, while the traditional CAMELS process is still in use, there is a definite move towards more rational allocation of supervisory resources through the risk oriented approach. Under the guidance of the BFS, the Reserve Bank has been attempting to shift to the RBS. The process involves continuous monitoring and evaluation of the appropriateness of the risk management system in the supervised institution in relation to its business strategy and exposures with a view to assessing its riskiness. The parallel pilot run of the RBS has continued along with the CAMELS model of supervision. After assessing the preparedness of banks, RBS has been taken up for 27 banks so far. Based on the experience gained through the pilot run of RBS, it has been decided to review the model that was attempted to be used in India for making the supervisory process risk-based. Accordingly, an internal working group has been set up to study systems in other countries and recommend an appropriate framework in the Indian context for risk- based supervisory process. Recent events in the financial systems of the matured markets, including the Northern Rock crisis in the UK, have raised the key questions about the efficacy of supervisory processes adopted in those countries. Besides, a more fundamental question that has come to the fore and has generated considerable debate is whether there can be a 'one-size-fits-all' model for all countries for risk-based approach to banking supervision. In fact, the revised Core Principles have explicitly made reference to this issue and have given up RBS as one of the principles with the observation that there is no universally acceptable model for risk-based approach to supervision. Currently, the Reserve Bank is revisiting its own supervisory processes which have evolved over the years. A preliminary evaluation suggests that India has to evolve its own approach to risk-oriented supervisory process suited to its socio-cultural and economic settings.

10.124 Given the state of evolution of risk management standards, risk orientation in the banking system, including the supervisory structure, the approach will have to be very gradual. It is also difficult to accept some of the key characteristics of the advanced countries' model. For instance, the advanced countries' model envisages, for the sake of optimal utilisation of resources, no on-site supervision of some low risk banks, or on-site visits instead of on-site examination. These differentiations are made on the ground that some banks are not needed to be evaluated repeatedly in a routine manner for ascertaining their financial health. This strategy may not be an optimal solution for India for two reasons. One, the past events have shown that there could be rapid deterioration of health of a bank even days after supervisory evaluation had shown that the bank was in very good health. The complex products, leveraged exposures and complex inter-linkages that banks have established with the non-banking sector and other entities in the financial sector could suddenly generate huge risks for a bank and make them illiquid, which, in turn, could drive it to the state of insolvency in no time. Therefore, simple process evaluation envisaged in respect of low risk banks or high risk banks with good risk management processes may not be suitable for India. In India, the statute coupled with the evolved supervisory policy (delegated legislation) requires the Reserve Bank to make the solvency evaluation of all banks at same frequency/periodicity and intensity. Two, the advanced countries' model envisages politically mandated supervisory regime that does not guarantee zero failure banking system. This may not be acceptable in the Indian conditions.

10.125 Though the risk based allocation of resources is one of the solutions, it may not be the only solution. Conducting the supervision off-site through automated means and using the IT solutions could be more effective and less time consuming without deployment of many supervisors. In fact, the on-site part of the RBS is reinforced through the off-site supervision. This is a typical example of how the supervisory processes can be internally integrated to achieve greater output than what each of the processes would deliver (Box X.11).

Issues Relating to Financial Conglomerates and the Supervisory Structure

10.126 Banks in India started diversifying by setting up subsidiaries/affiliates in the 1980s when the Banking Regulation Act, 1949 was amended to allow banks to conduct non-traditional businesses. Similar changes also occurred in other sectors. Mutual funds were initially allowed to be set up by public sector banks in the late 1980s and subsequently in the private sector in the early 1990s. The insurance sector was also thrown open to the private sector in the 1990s. As a result, many groups/financial conglomerates emerged over the years. Since a non-bank member of a group can endanger the stability of a bank, the Reserve Bank in 2000 mandated that a parent bank should consolidate all subsidiaries, barring those specifically permitted to be excluded under Accounting Standard (AS) 21. In 2006, NBFCs promoted by the parent/group of a foreign bank operating in India, which is a subsidiary of the foreign bank's parent/group or where the parent/group is having management control, were brought under the ambit of consolidated supervision. Consequently, the concerned foreign banks are required to submit the consolidated prudential returns and also comply with the prudential regulations/norms prescribed to the consolidated operations of that bank in India. These foreign banks in India need not prepare 'consolidated financial statements' under AS 21. They may consolidate the NBFCs with the bank's Indian operations on a line by line basis for the purposes of consolidated prudential regulations by adopting the principles of AS 21 as applicable to consolidation of subsidiaries. Consolidated supervision signifies a comprehensive approach to banking supervision which seeks to evaluate the strength of the entire group, taking into account all the risks which may affect a bank, regardless of whether these risks are carried in the books of the bank or related entities.

10.127 In view of the intra-group transactions and exposures (ITEs) and their ability to exploit regulatory gaps, the segmented approach to regulation of financial conglomerates had serious limitations. Therefore, in order to address these broad supervisory issues, the three major financial sector supervisors in India, *viz.,* the Reserve Bank, Securities and Exchange Board of India (SEBI) and Insurance Regulatory and Development Authority (IRDA), decided to establish a special monitoring system for systemically important financial intermediaries (SIFIs). The financial conglomerate (FC) monitoring framework was put in place in India in June 2004. The FC monitoring framework was further fine-tuned during 2006-07 based on the experiences gained in the course of the supervision of FCs in India. The definition of FCs was also revised. In terms of the revised definition, an FC is defined as

Box X.11
Integration of Supervisory Methodologies

Supervisory tools include on-site examinations and off-site surveillance from both macro and micro perspectives. On-site examinations are particularly important in developing countries, because insolvency of financial institutions in developing countries usually occurs due to credit losses. Proper understanding of credit losses in general and assessment of asset quality leading to supervisory demand for additional provisioning for NPAs is best achieved through on-site examination and verification. By determining asset quality and the condition of an institution, bank supervisors provide critical information to policymakers on the health of the financial system.

Traditional on-site examination tools which are generally employed in many countries focus on compliance with banking regulations and directives. As a result, prudential concerns for safety and soundness are often understated in the supervisory documents. Even in cases where supervisors attempt to address safety and soundness concerns, the examination process only provides a "snapshot" of the institution's condition as on a particular date without addressing potential risks and the management systems needed internally by the bank to control risk in a dynamic environment. For example, examiners may determine the condition of a bank's loan portfolio but may not evaluate the lending policies and practices that lead to loan problems or that may give rise to future loan problems.

To improve the effectiveness of on-site examination activities, supervisors need to move away from checking compliance with laws to assessing risk. To accomplish this, bank supervisors need to embrace a top-down approach that places emphasis on the direction and policies formulated by the board of directors and executive management. It is also important to review the business and strategic plans of individual banks and assess the capabilities of management to fulfill objectives. Banks need to be encouraged to establish and strengthen their own internal management systems as the first lines of defense against unsound, unsafe, or illegal banking practices. Management systems must encompass written policies and procedures, formalised planning and budgeting, internal loan review, compliance systems, internal and external audit activities, and internal controls.

Since the task of bank supervisors is to ensure the safety and soundness of the financial system – as opposed to individual banks – and to protect depositors - as opposed to shareholders of banks - supervisory activities should focus on the areas of greatest risk to the system, for example, large financial institutions or banks whose activities may lead to contagion. Within individual banks, efficient use of scarce supervisory resources should be made by targeting examination efforts to the areas of greatest risk, for example, asset quality, interest rate risk, foreign exchange activities, and so on. The examination should focus on the condition of the consolidated institution by examining those branches that have a significant impact on the institution's overall position, while the remaining branches could be evaluated on a sample basis.

In most developing countries, written examination procedures are less than adequate, or lacking altogether, so that the examiner must rely on his or her experience, knowledge, and skills. This leads to lack of uniformity and consistency in the conduct of on-site examinations from one examiner to the other. The lack of written examination procedures also deprives new staff of an essential training tool. A complementary aspect to written examination procedures is the documentation of work performed. Documentation may also be necessary to support legal enforcement actions proposed by the supervisors.

Off-site surveillance complements the on-site examinations by providing early warning of actual or potential problems and a means for monitoring and comparing financial performance. However, off-site surveillance should not be viewed as a means to replace on-site examination as the primary form of supervision in a developing country. The quality of information and integrity of data provided by banks in all countries must be verified. In developing countries, the information is often incomplete and inaccurate. Often, banks do not have the internal accounting and control systems to ensure timely and accurate preparation of information. In most developing countries, prudential reports, which form the basis for most off-site surveillance activities, are limited to those concerning liquidity, reserve requirement computations, and credit guidelines. Analysis often consists of simply checking compliance with certain balance sheet ratios. Rarely is information gathered to meaningfully appraise risk. Therefore, in most cases, it would be inappropriate to rely on off-site surveillance as more than a complement to on-site examinations.

a cluster of companies belonging to a Group[4], which has significant presence in at least two financial market segments. Banking, insurance, mutual fund, NBFC deposit taking and non-deposit taking are considered as financial market segments. The FC monitoring framework provides for a 'designated

[4] A Group is an arrangement involving two or more entities related to each other through any of the following relationships: Subsidiary - parent (defined in terms of AS 21), Joint venture (defined in terms of AS 23), Associate (defined in terms of AS 27), Promoter-promotee, a related party (defined in terms in AS 18), common brand name, and investment in equity shares of 20 per cent. A Group entity is any entity involved in the above arrangement.

entity' (quite often the parent or the dominant entity in the Group) which is entrusted with the task of collection and submission of data/information in the prescribed format to the principal regulator of the group. The Reserve Bank, SEBI and IRDA, the regulators for banking, securities and insurance market segments, respectively, are the three principal regulators for the present. There is, however, a provision to co-opt Pension Fund Regulatory and Development Authority (PFRDA) at a later stage as another principal regulator. The FC monitoring framework comprises three components (i) off-site surveillance through receipt of quarterly FC returns; (ii) periodic review by a Technical Committee having members from the Reserve Bank, SEBI and IRDA on concerns arising out of analysis of FC data, and other significant information in the possession of the principal regulators, which might have a bearing on the group as a whole; and (iii) holding of half-yearly discussions by the principal regulator, with the CEO of the FC in association with other principal regulators to address outstanding issues/supervisory concerns.

10.128 While the consolidated supervision framework focuses on the consolidated financial position of the banking group, the conglomerate monitoring mechanism is broader in scope and coverage. The conglomerate supervision tracks the ITEs, financial and non-financial linkages amongst the group entities and commonality of directors, among others. However, at present, there are no prudential regulations for undertaking supervision of FCs. An internal group in the Bank is studying the supervisory practices across the countries for regulation and supervision of the FCs. Their recommendations would be examined in consultation with SEBI and IRDA and appropriate action would be initiated to strengthen the conglomerate monitoring mechanism.

10.129 Several issues have arisen relating to operations of FCs and the monitoring arrangement evolved for them. First, the system of sectoral supervision provides opportunity for regulatory/ supervisory arbitrage. The issue is how to reconcile the differences in approach to prudential regulations/ norms followed by sectoral regulators. Second, while consolidated supervision guidelines are applicable to banking groups where bank is a parent/controlling entity, it excludes insurance entity from its prudential regulations. Consolidated supervision also does not look at ITEs for supervision purpose. The conglomerate monitoring mechanism, in turn, focuses on ITEs, but group-wide prudential regulations are not in place.

10.130 Third, there are important cross-border supervision issues associated with conglomerate supervision. Principles 23 to 25 of Basel Core Principles for Effective Supervision (BCP), *inter alia,* reiterate that as part of consolidated banking supervision, banking supervisors must monitor and apply appropriate prudential norms to all aspects of the business conducted by their banking organisations worldwide, including at their foreign branches, joint ventures and subsidiaries in order to ensure that these activities are conducted in a safe and sound manner. This entails establishing contacts and exchange of information with various other supervisors involved, including host country supervisory authorities. In many jurisdictions, bilateral arrangements have been made between supervisors for defining the scope of information to be shared and the conditions under which such sharing would normally be expected.

10.131 A more fundamental issue that has arisen recently is the appropriate structure of FCs in the Indian conditions. India has followed parent-subsidiary structure. Many of the issues arising from the operations of financial conglomerates stem from the basic character of FCs themselves as they deal with banking, insurance and other financial products within the same group but under different corporate structures. In view of these concerns, the Reserve Bank, in September 2007, released a discussion paper on 'Holding Companies in Banking Groups', wherein it was indicated that it will be useful to explore the possibility of adopting a bank holding company (BHC)/financial holding company (FHC) model.

10.132 As alluded to earlier, the holding company structure of financial conglomerates poses the least risk and avoids the benefit of safety net subsidy being passed on to the subsidiaries. Purely from the standpoint of safety and soundness and the level playing field between banks and non-banks, the holding structure is more appealing. However, from the organisational flexibility standpoint, the parent-subsidiary structure is found to be a more efficient way of delivering various financial services.

10.133 Under the present parent-subsidiary structure, the parent company is required to raise resources not only for its own expansion but also invest in subsidiaries. The holding company structure frees up the bank capital as the holding company will directly invest in various subsidiaries. In the holding company structure, risks are isolated from one another with regard to their losses and obligations and allow the group to undertake various activities. This, therefore, could facilitate faster expansion of financial services.

However, at the same time, the requirement of holding company structure may discourage, especially, small players to diversify. The parent-subsidiary structure itself entails some costs and duplication of efforts (for instance, multiple boards of directors, multiple establishments and multiple advertising). The empirical findings also suggest that branch banking organisations (integrated structure) exhibit significantly greater overall efficiency, suggesting that fully integrated structure are better able to control costs than holding companies (Berger, *et al.,* 1993). However, given the serious risks posed by the fully integrated structure, the additional costs of operating subsidiary structure are fully justified. That is, efficiency gains of fully integrated structure are foregone for the sake of stability. However, it is difficult to say the same thing about the parent-subsidiary structure and the holding company structure. Therefore, at this stage, it is not clear as to how the requirement of holding company structure would impact the further expansion of the financial sector.

10.134 The FC structure in India is also complex. There are both bank-led and non-bank-led FCs. Also, while some banks/non-banks have set up wholly owned subsidiaries for undertaking non-traditional activities, others have only majority stake in the subsidiaries floated. In the case of some FCs, promoters have only a minority stake in the promoted entities but share a common brand. For instance, HDFC Ltd., a housing finance company, has set up affiliates to engage in banking and insurance activities. HDFC, together with two wholly owned subsidiaries, however, holds 23.7 per cent equity in its promoted bank, but shares a common brand name with it as also with its insurance subsidiary in which it holds 79 per cent equity.

10.135 The holding company structure also raises several other issues. At present, there are foreign direct investment (FDI) limits in banks and insurance companies. The limits are 74 per cent in private banks and 26 per cent in insurance companies. How such FDI limits are to be fixed in a holding company is not clear. The holding company structure might also raise some taxation issues. For instance, whether tax would be payable at the subsidiary level or the holding company level. Taxation at the holding company level would allow losses in one subsidiary to be set off against the profits of another subsidiary. However, if such tax is to be paid at the subsidiary level, no such benefit may be available. Likewise, there would also be an issue whether dividend distribution tax would be payable only at the subsidiary level or it would be payable by the holding company. It is also not clear as to how public sector banks would form a holding company.

10.136 The adoption of the holding company structure would require supervision of the holding company for group-wide perspective and for prescribing capital requirements for the holding company. This, in turn, would require that one of the supervisors is designated as the umbrella supervisor. This would require legislative amendments. That is, while the parent-subsidiary structure is consistent with the multiple regulators framework, the introduction of the holding company structure would require appropriate legislative amendments.

10.137 In response to the emergence of FCs, some countries have adopted the institution of a super regulator. There have been some suggestions that India should also follow a system of super regulator (Mor and Nitsure, 2002). It is the blurring of distinctions among providers of various financial services and the complexity, which have led a unified regulatory body in some countries. Although there has been some blurring of distinctions among providers of various financial services and emergence of FCs in India, the blurring has not been to the extent so as to introduce a super regulator (Raj, 2005). The financial structure in India has not yet become as complex as in developed countries and there has been more reliance on standard commercial banking than in developed economies. The arguments in terms of efficiency for a unified financial supervisory authority are not so strong for a developing country like India as for other countries. A crucial issue to be addressed while creating unified supervisory structure is whether it should be created within the central bank or outside. If the unified structure is created within the central bank, it would lead to a serious moral hazard problem. On the other hand, if the unified structure is created outside the central bank, it would adversely affect Reserve Bank's supervisory capacity in respect of the banking sector and the ability to effectively manage the crisis situations. Thus, the answer to the question whether unified supervisory structure should be created within the central bank or outside is not an easy one and presents two very difficult choices with serious ramifications for the stability of the financial system. In the UK, where banking supervision has been separated from the central bank, a mechanism by involving the central bank has been worked out for managing the crisis situations. However, the failure of Northern Rock in the UK exposed serious limitations of such an arrangement. There are also

some serious practical problems faced by the policy-makers in unifying different supervisory agencies. A survey shows that legal constraints, departure of experienced personnel, lack of vision and clarity during their early years of existence as well as serious budgetary problems affecting the ability to operate efficiently were some of the major problems faced while creating unified structures (Martinez and Rose, 2003). It is possible that a single regulator that is to supervise all types of intermediaries, loses focus of the banking sector, which is most important from the systemic point of view and which dominates the Indian financial sector. The institution of a single regulator has not been tested of any serious crisis as yet. A single regulator also means that the responsibility of monetary stability and financial stability vests with two separate authorities. They may, at times, work against each other.

10.138 While several arguments have been advanced in favour of and against the super or integrated supervisor, the following points are important in assessing the model of integrated supervisor. First, the merging of standalone agencies into an integrated supervisory structure involves a major reorganisation of functions and is fraught with serious risks. Second, there is no single best form of integrated regulatory agency. Unified supervisory structure has been adopted differently in many countries, its application has varied from country to country and there is no single right way of introducing or implementing unified model of financial services supervision. Factors that accounted for the differences include differences in starting points, differences in industry structures and differences in objectives. For instance, Australia has adopted a unique supervisory structure, which is not based on institutions or products, but rather on regulatory objectives. Likewise, some countries have created unified structure within the central banks such as Singapore, others have created outside the central bank such as the UK. Third, notwithstanding the integrated supervisory structures created in some countries, it continues to be believed that while supervisory structure within the central bank creates a serious moral hazard problem (which is based on the premise that public will tend to assume that all creditors of institutions supervised by the central bank will receive the same protection), integrated supervisory structure outside the central bank erodes the synergies between banking supervision and monetary policy. Finally, a very strong argument against the integrated supervisory structure is that the nature of risks is sufficiently different to warrant a differentiated approach to prudential regulation. That is, while banking institutions have to be supervised for prudential reasons, other institutions such as mutual funds and securities firms are required to be supervised for providing adequate disclosures to investors. Therefore, it is strongly felt by many experts that a single regulator might not be able to make the necessary differentiation among different types of institutions and the risks undertaken by them, which could be detrimental to the overall stability of the financial system.

Challenges of Electronic Banking

10.139 Electronic banking (or e-banking) revolution has changed the entire spectrum of banking business in a fundamental way. Under this system, the banking business can be done even without the physical contact of the customer and the bank, and from anywhere in the world. E-banking encompasses a wide range of activities such as internet banking, ATMs, credit/debit cards, electronic fund transfer, *etc*. Of late, mobile banking has also emerged as a popular mode of banking. E-banking offers many benefits to both banks and customers. While the banks reap advantages such as lower cost of banking operations (or conversely economies of scale) and greater reach to the customers, the customers reap advantages such as easy access to banks, saving of time and faster response from the banks, among others.

10.140 It is evident from the experiences of different banks that along with the benefits, e-banking carries many risks. In particular, e-banking increases and modifies some of the traditional risks associated with banking such as strategic risk, operational risk and reputational risk. Some of the banking risks raised/heightened by the e-banking services are operational risk, security risk, legal risk and cross-border risk. The operational risk arising from technological failure may take the form of inaccurate processing of transactions, non-enforceability of contracts, compromises in data integrity, data privacy and confidentiality, and unauthorised access/intrusion to bank's systems and transactions, among others.

10.141 Confidentiality, integrity and authentication are very important features of the banking sector and were successfully managed in the traditional banking (Nitsure, 2003). The consumer expects efficient management of these features in the e-banking system. The failure of the underlying technology may pose serious challenges in managing these features of the banking sector raising serious security issues for the banks. This may arise on account of unauthorised access to a bank's critical information

stores such as accounting system, risk management system, portfolio management system either internally or externally. Outsourcing of e-banking services can also heighten the security risk involved in the e-banking business. The risk involved in outsourcing may be higher for those banks whose in-house technical expertise is poor. The in-house technical expertise can always be an overseer for the performance of the third party involved in the transactions.

10.142 Importantly, apart from modifying the banking risks, e-banking services raise some macroeconomic challenges. First, the mode of financial operation of the households and firms may take a variety of different forms in the e-banking system. This may delink the financial operations of the households and firms from the purely financial operations of the central bank, making the monetary policy of the central bank weaker. Second, in e-banking, the cost of financial transactions is very low as compared to the traditional banking. Further, cross-border transactions may also become much cheaper and easier under the e-banking operations. Thus, the movement of international capital flows may become much smoother and faster making the monetary policy less effective. Third, e-banking services are mainly confined to the educated elite of the society. Thus, while the educated elite group of the society enjoys the low transaction costs of the financial operations, the poorer classes may have to bear the major part of the cost of financial transactions (Nitsure, 2003).

10.143 In the context of developing countries, e-banking may raise some additional challenges due to the general technological backwardness and the lack of awareness of the population. Unless a country has the ability to adapt the global technology to the local circumstances, the country will not be in a position to reap the advantages of e-banking. An adequate level of infrastructure and human capacity building would be required for adapting the global technology to the local circumstances. It is observed that many of the corporates and consumers in some of the developing countries either do not trust or do not have access to the necessary infrastructure to be able to process e-payments. The ability to strengthen public support for e-finance is also important for developing trust among the people on e-banking services. The developing countries will also need to develop a necessary level of regulatory and institutional framework to handle the challenges posed by e-banking. Further, since the labour-intensive SMEs have a greater role to play in the economic development of developing countries through employment generation, they may take additional measures to mainstream SMEs towards e-banking (UNCTAD, 2002).

10.144 There is considerable ambiguity and uncertainty regarding the legal rights and obligations relating to e-banking since it is a relatively new development. The potential sources of legal risks are laws regarding protecting consumer privacy, disclosure of information, validity of some agreements formed *via* electronic media and authentication of system by digital signature. Another risk involved in e-banking is the identity of the person making a request for a service or a banking transaction over the internet. This information is crucial to the legal validity of a transaction and thus, the lack of it is a source of risk to a bank. Non-repudiation is another source of risk, which involves creating a proof of communication between the two parties, which cannot be denied later. Anybody can make a proof of such communication between a bank and its customer raising many security issues for the bank. Thus, the bank's system must be technologically equipped to handle these aspects.

10.145 Cross-border e-banking may raise some legal issues because of the jurisdiction ambiguities with respect to the responsibilities of different national authorities and uncertainty about the legal requirements in different countries. The legal risk associated with cross border e-banking transactions may also arise with non-compliance of different national laws and regulations, including consumer protection laws, record-keeping and reporting requirements, privacy rules and money laundering laws. Cross-border e-banking may also accentuate credit risk, since it is difficult to appraise an application for a loan from a customer in another country as compared to a customer from a familiar customer base.

10.146 In the pre-internet era, innovations in banking were implemented over a long period of time after doing sufficient trials and in-depth testing. However, in the e-banking era, banks are under tremendous competitive pressure to provide innovative services to customers. Thus, in most cases, in-depth testing of the new technology may be compromised to survive in the highly competitive environment. Any of the above mentioned problems may significantly impact the reputation of a bank. Customer dissatisfaction in respect of the online services provided by the bank, security breaches, fraud, identity misrepresentation, *etc.* may lead to negative opinion about the bank among customers (Schaechter, 2002).

10.147 It is obvious that banks as well as the regulators have to equip themselves before getting into the business of e-banking. Recognising this, Electronic Banking Group (EBG) of the Basel Committee on Banking Supervision (BCBS) released a report of Risk Management Principles for e-banking in 2003 (Box X.12). The EBG has focused on Board and management oversight, security controls and legal and reputational risk management while presenting the risk management principles for e-banking. The report calls for additional attention of the board of directors on the important aspects of the regulation and supervision of e-banking such as the overall risk appetite of the bank, integration of e-banking risks to the overall risk profile of the bank, in-house technical expertise and security control procedures, among others. For ensuring security of the e-banking transactions, banks should emphasise on

Box X.12
Report of the Electronic Banking Group of BCBS on "Risk Management Principles for Electronic Banking"

The principles put forward by the Electronic Banking Group (EBG) of Basel Committee on Banking Supervision (BCBS) can be categorised into three groups: (1) board and management oversight, (2) security controls, and (3) legal and reputational risk management.

According to the EBG, vigilant management oversight of the board of directors is very important in facing the challenges posed by e-banking. Since e-banking modifies and raises some of the risks faced by the banking operations, the board of directors should undertake a review of the risk appetite of the bank before entering into the e-banking business. Further, the additional requirements for the risk management of e-banking operations should be tailored with the overall risk management strategy of the bank. Additional care may be taken to explore the risks related to cross border e-banking services before getting into the business abroad. EBG further emphasised that the expertise of the staff and management should be commensurate with the technical nature and complexity of e-banking services. The vigilant monitoring of systems operability, customer satisfaction and appropriate incident reporting to the board are very important to maintain the reputation of the bank. The board of directors should take adequate interest in maintaining security control infrastructure with the latest available technological innovations to safeguard the bank's electronic data base and e-banking operations from both internal and external threats. Further, the board of directors should also establish 'comprehensive and ongoing due diligence and oversight process' for managing the risks related to outsourcing of some of the e-banking services to the third parties.

As a first measure to manage the security risks raised by e-banking services, EBG suggested that the banks should have measures to authenticate the identity of the customer. This is extremely important in the case of cross border e-banking operations where the probability of unauthorised persons getting access to the bank's system is very high. The EBG suggested that the banks can use a variety of methods such as personal identification numbers (PIN), passwords, smart cards, biometrics, digital signature, *etc.* for ensuring the identity of the customer. Equally important is the authentication of the transaction, *i.e.*, proof of origin and delivery of the electronic transaction. The segregation of duties, especially between those who initiate static data and those responsible for verifying its integrity within the e-banking operations is important in eliminating the fraud. Thus, banks should ensure that appropriate measures are in place to promote adequate segregation of duties. Further, banks should ensure that proper authorisation controls and access privileges are in place for e-banking systems, databases and applications. The failure to ensure this may allow unauthorised individuals to alter their authority, circumvent segregation and gain access to e-banking systems. Banks should also give adequate attention to maintain the data integrity of e-banking operations, records and information. Proper audit trails and measures to preserve the confidentiality of key banking information should be in place for all e-banking transactions.

To protect the legal and reputational risks of the bank, the banks should provide adequate information about the bank's identity and its regulatory status in the website to allow the customers to take an informed decision whether to avail the e-banking services of the bank. Further, banks should adhere to the customer privacy requirements of each jurisdiction, wherever the bank is providing e-banking services. Another important factor in maintaining the reputation of the bank is the consistency and timeliness in providing the e-banking services to the customers. Thus, the banks should ensure that they have adequate capacity to provide e-banking services in a timely and consistent manner in accordance with the customer expectations. Further, the bank should also have adequate infrastructure to handle any type of contingency that may hamper the smooth functioning of e-banking operations.

Reference:

Basel Committee on Banking Supervision. 2003. *Risk Management Principles for Electronic Banking.* BIS, July.

the identification of the customer, authentication of the electronic transaction, segregation of duties and data integrity. The Report also emphasised the need to take additional measures to appropriately handle the legal and reputational risk of the bank. The broad tools to address these new dimensions of risks raised by e-banking services may be categorised into adaptation, legalisation, harmonisation and integration (Nsouli and Schaechter, 2002).

10.148 In India, the Information Technology Act, 2000 is an Act meant for providing legal recognition to electronic commerce which, *inter alia,* includes the electronic mode of transaction, electronic storage of information and electronic filing of documents, among others. Since electronic commerce is widely used in the banking business, the provisions of this Act become relevant for the effective functioning of e-banking in the country. The Act laid down the basic contours of the legal framework conducive to e-commerce in India. Since the Act provides only a basic legal framework for the e-commerce in the country, it may not be useful to handle all specific challenges faced by e-banking *per se*.

10.149 The Reserve Bank also issued guidelines to handle the challenges raised by internet-banking. In particular, the guidelines focused on technology and security issues, legal issues and regulatory and supervisory issues. According to the Reserve Bank's approach, only such banks which are licensed and supervised in India and have physical presence in India will be permitted to offer internet banking products to residents of India. The products should be restricted to account holders only and should not be offered in other jurisdictions. The services should only include local currency products. The "in-out scenario" where customers in cross-border jurisdictions are offered banking services by Indian banks and the "out-in scenario" where Indian residents are offered banking services by banks operating in cross-border jurisdictions are generally not permitted and this approach will apply to internet banking also. Overseas branches of Indian banks will be permitted to offer internet banking services to their overseas customers, subject to their satisfying, in addition to the host supervisor, the home supervisor.

10.150 Banks need not obtain permission from the Reserve Bank for providing e-banking services to the customers. However, banks' internet policy should be approved by its board with the following broad elements: (i) the policy should fit into the bank's overall IT and information security policy and ensure confidentiality of records and security systems; (ii) policy should also take into account the operational risk; (iii) policy should clearly lay down the procedure to be followed in respect of 'know your customer' requirements; and (iv) it should also meet the other parameters laid down by the Reserve Bank.

10.151 In India, public sector banks are in the process of transforming their vast customer base into electronic format, which is a necessary condition for providing e-banking services to the customers. However, public sector banks are faced with the challenge of 'system hanging' due to their large size. However, private sector banks and the foreign banks are far ahead in providing services electronically to their customers.

10.152 E-banking services would continue to pose several challenges for the banks and the Reserve Bank, especially because the underlying technology itself is in a state of constant flux. There is a need for each bank to understand the changing technology, the likely impact of the new technology on the risk profile of the bank and device appropriate mechanisms to take care of the new dimensions of risk profile to handle the emerging situation successfully. The failure to understand the new dimensions of technology may increase the risk involved in providing e-banking services by the bank. Owing to the cross-border risks associated with the e-banking services, international harmonisation of e-banking regulation is necessary. This can be achieved by increasing the co-operation among the regulators of different countries. Developing international best practices on the regulation and supervision of e-banking services may also help in harmonising the regulation of e-banking services across countries. The risks raised by e-banking services need to be integrated to the overall risk profile of the bank. The bank's management should have a strategic view regarding the business plans for the e-banking services. Risks associated with the outsourcing of activities should also be considered while planning the overall risk management strategies of the bank. Though the proliferation of mobile banking poses same risks as e-banking, these risks are magnified in respect of mobile phones on account of its greater spread.

Home-Host Country Issues

10.153 In view of the rapid integration of financial markets across borders, cross-border supervision has assumed importance of late. While supervisors across different countries have been evolving practices and processes for mutual co-operation, the need for putting in place a formal and structured framework

for co-operation is increasingly being felt by the supervisors worldwide.

10.154 The internationalisation of financial operations poses several challenges. One, as the interdependence among different countries increases, the problems in the banking system in one country are more likely to spill over to the other countries where the bank or group is active. The cross-border contagion effects are likely to be larger as banks are actively involved in several countries. Second, decisions and actions by national authorities are likely to have considerable implications for the financial stability in foreign economies. This is, of course, particularly true in cases where foreign operations are run through branches, meaning that they are subject to foreign supervision. Three, the practicalities of supervision and crisis management become greatly complicated as the number of relevant authorities increase. In normal times, this means that the regulatory burden for the financial firms increases. Also, the need for supervisory co-operation increases, which demands new supervisory procedures and the creation of common supervisory cultures. In times of financial crises, sharing information and coordinating action becomes a difficult priority. Four, conflicting national interests emerge as banks become truly cross-border. The national authorities are unlikely to take the full external effect of their actions in other countries into account. Different countries may also have different priorities in terms of resources for supervision and crisis management or in terms of their regulatory structures. One reason may be that the financial systems differ quite significantly between countries. Additionally, in crisis management, the use of public funds can never be completely ruled out. In a cross-border context, serious conflicts of interest can arise when it comes to agreeing on how to share the potential burden of such interventions.

10.155 All these challenges have a common theme – domestic financial stability is increasingly becoming dependent on the activities of banks and authorities in foreign countries. Also, given the roles and responsibilities of these authorities, conflicts of interest are likely to occur. The typical illustration of this problem is a bank being of limited size in the home country while having a systemically important branch abroad. While a potential failure of the bank would not create any substantial disturbance in the home-country, the consequences to the host country could be serious. In the event of failure, the host country is likely to end up with the bulk of the responsibility for resolving the crisis and the incentives to conduct close supervision of the bank would be substantial. For the home country, on other hand, the same incentives may not exist.

10.156 These challenges are being addressed through various means. One alternative is to prohibit foreign branches from doing business domestically or extending home-country responsibility. Another alternative would be to gradually move towards the creation of a common international body with a mandate to conduct supervision of banks with substantial cross-border activities. The simple rationale of this is that the creation of such a body is the only way to fully manage the conflicting national interests. Further, a single authority supervising cross-border banking groups would most certainly increase the comprehensiveness and the effectiveness of the supervision. For the firms subject to supervision, it could mean that the regulatory burden would eventually be reduced considerably.

10.157 The ongoing financial crisis provides an example of the role of cross-border co-operation especially in times of crisis. When the international financial markets turned volatile in mid-2007 on account of uncertainties about the size and distribution of losses from the US sub-prime mortgage market, the fallout from strains in the US sub-prime mortgage market led to spikes in yields on structured credit products and in other high risk credit markets, particularly in the US and the Euro area. Rising concerns about counterparty risks led to the drying up of liquidity in various segments of the financial market, which forced major central banks to step in to inject liquidity to manage volatility. Central banks in the US and other affected economies took measures by injecting liquidity to stabilise inter-bank markets. Open market operations of increased size and maturity were also undertaken by the Bank of England, the European Central Bank and the US Federal Reserve System. However, actions by central banks individually failed to quell the markets. In the situation of heightened tensions and serious impairment of functioning of the money markets, five central banks, *viz*., the Bank of Canada, the Bank of England, the European Central bank, the US Federal Reserve System and the Swiss National Bank announced measures on December 12, 2007 in a collaborative manner to address elevated pressures. The European Central Bank, the Federal Reserve and the Swiss National Bank announced an expansion of their liquidity measures in May 2008 in view of the persistent liquidity pressures in some term-funding markets.

10.158 The Basel Core Principles for Effective Bank Supervision in 1997 highlighted the importance of

cross-border supervision through Principles 23-25. Banking supervisors were advised therein to practice global consolidated supervision over their internationally active banking organisations, adequately monitoring and applying appropriate prudential norms to all aspects of the business conducted by these banking organisations worldwide, primarily at their foreign branches, joint ventures and subsidiaries by establishing contact and information exchange with the various other supervisors involved, primarily host country supervisory authorities. Similarly, it recommended banking supervisors to require the local operations of foreign banks to be conducted in the same high standards as those required of domestic institutions and have powers to share information needed by the home country supervisors of those banks for the purpose of carrying out consolidated supervision.

10.159 Recognising that the Basel II Accord would require more co-operation and co-ordination between home country and host country supervisors, especially in the case of complex banking groups, the BCBS in its paper on 'High-level principles for the cross-border implementation of the New Accord' issued in 2003, accentuated the need for such co-operation. The Committee believed that fostering closer practical co-operation between supervisors was essential to implement the New Accord as effectively and efficiently as possible. In its paper on 'Home-Host Information Sharing for Effective Basel II Implementation' issued in June 2006, the BCBS observed that the need to develop cross-border understandings on the application of capital standards to international banking groups was recognised as an essential element of the successful implementation of Basel II.

10.160 The revised Core Principles for Effective Banking Supervision in 2006 have retained the focus of cross border supervision. Principle 25 thereof, relating to Home-Host relationships, has mentioned that cross-border consolidated supervision requires co-operation and information exchange between home supervisors and the various other supervisors involved, primarily host banking supervisors. It has reiterated the contents of the 1999 Core Principles that banking supervisors must require the local operations of foreign banks to be conducted on the same standards as those required of domestic institutions.

10.161 Under Pillar 2 of Basel II, in order to make a supervisory assessment of the internal capital adequacy assessment process (ICAAP) of banks, there would be a need for formal dialogue between home and host country supervisors in order to make a subjective and qualitative assessment. Potentially, there could be significant conflicts between rules/regulations as well as supervisory assessments of home/host country supervisors. Such conflicts would need to be resolved/reconciled expeditiously. Keeping these issues in view, the Reserve Bank, in its Mid-Term Review of the Annual Policy, October 2007, announced the constitution of a Working Group to lay down the road-map for adoption of a suitable framework for cross-border supervision and supervisory co-operation with overseas regulators, consistent with the framework envisaged by the BCBS.

Flat Rate and Risk-based Premium Deposit Insurance System

10.162 In India, DICGC charges premium from the insured banks on a flat rate basis. The advantage of the flat rate premium system mainly lies in the relative ease in its administration. The main disadvantage of this system is that it involves cross-subsidisation of deposit insurance by the low risk banks to high risk banks, encouraging excessive risk taking by the latter. However, it may also be argued that the cross-subsidisation of premium on account of the flat rate system is the price paid by low risk banks for ensuring a more stable and equitable banking system. This is perhaps more relevant in an environment where different non-competing categories of banks co-exist and it is not possible to apply the same set of prudential norms for their regulation and supervision.

10.163 Several deposit insurance systems, including the Federal Deposit Insurance Corporation (FDIC) of the US, have switched over to a system of premium based on risk profile of individual banks. With the sophistication in techniques for risk management and banking supervision, more and more countries are adopting the system of risk-based premium. At present, the differential premium system administered by FDIC incorporates a matrix comprising mainly capital adequacy and supervisory rating for assessing the premium. For institutions that have at least US$10 billion in assets and one or more current long-term debt issuer rating assessment, premium rates are based on these ratings and weighted average CAMELS component ratings. The differential premium system currently in vogue in Canada Deposit Insurance Corporation (CDIC) categorises member institutions into one of four premium categories. Except under special circumstances, the classification is based on a system that scores a member institution

according to a number of factors, including capital adequacy, profitability, asset quality and concentration. In the case of France, the assessment of differential premium is done on the basis of a combination of prudential and financial risk analysis ratios, which are applied to the amount of deposit with each member bank. In Argentina, all institutions contribute a basic premium to the deposit insurer with additional premia determined by a combined qualitative/quantitative differential premium system. Although several deposit insurance systems across the world have adopted the risk-based premium system, a large number of countries continue to follow the flat rate system.

10.164 The most difficult task in developing a system of differential premium based on risk profile of banks pertains to finding appropriate methods for quantifying the risk posed by any individual bank. Also, such a system is not easy to administer as it is highly information intensive. However, with an increasing move towards risk-based premium system across the globe, considerable work has been done for developing methodologies for this purpose.

VI. THE WAY FORWARD

10.165 There have been several episodes of banking crisis in various parts of the world in recent years. Such episodes have brought to the fore the loopholes in the regulatory and supervisory frameworks that partly allowed such episodes to occur. At times, the lagged response of the regulators failed to prevent banking crises from spreading to other segments of the financial system and to the rest of economy. The increased complexity of financial products and markets poses several challenges to the regulators and supervisors. As reported in the Report of the Financial Stability Forum[5], supervisors and regulators need to make sure that the risk management and control framework within financial institutions keeps pace with the changes in instruments, markets and business models, and that firms do not engage in activities without having adequate controls.

10.166 The turmoil in international financial markets since the middle of 2007 has also raised several concerns relating to financial stability and financial regulation. The sudden loss of confidence among traditional counterparties once the crisis surfaced reflected extreme information asymmetry arising from the complex layering of risk diffusion and high leveraging and the breakdown of risk assessment by reputed agencies and the like. The speed with which the crisis unfolded and the extensive involvement of large, reputed and regulated financial institutions reflected regulatory shortcomings, which necessitated unconventional responses from central banks. These developments have raised serious concerns relating to the ability and flexibility of national financial systems to withstand shocks emanating from such unusual developments. They have also spurred rethinking on some aspects of financial regulation, particularly as they relate to the maintenance of financial stability (Mohan, 2007).

10.167 The ongoing financial crisis, apart from exposing various sources of market failures, has brought to light several regulatory shortcomings. First, the regulators recognised some of the underlying vulnerabilities in the financial sector but failed to take effective action, partly because they may have overestimated the strength and resilience of the financial system or they assumed that the risks were well distributed among entities outside the banking system. Many analysts and policymakers had raised concerns about excessive risk taking, loose underwriting standards, and asset overvaluations, all of which, in the absence of timely effective actions, laid the seeds for crisis. Second, the limitations in regulatory arrangements, including the capital adequacy framework, contributed to the growth of unregulated exposures, excessive risk-taking and weak liquidity risk management. Third, weaknesses in the application of accounting standards and the shortcomings associated with the valuation and financial reporting of structured products played a significant role in the current turbulence through pro-cyclical valuations and lack of full disclosure of banks' true risk profile through the cycle. Fourth, the crisis revealed the need to adapt some of the tools and practices of central banks to manage system liquidity in the light of banks' cross-border operations. The recent experiences have highlighted the differences in emergency liquidity frameworks of central banks, on aspects such as range of collateral, range of eligible counterparties, and the differences in central bank practices. Fifth, supervisors did not adequately address deterioration in risk management standards in the regulated entities and shortcomings in consolidated supervision. Sixth, deficiencies in crisis management and bank resolution frameworks, including deposit insurance, have been observed,

[5] Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience, April 2008.

especially where central banks do not have a central supervisory role. Finally, the complex inter-relationship between regulation, the inappropriate accounting practices, and regulators' excessive dependence on external ratings may have exacerbated the market turbulence (Reddy, 2008).

10.168 Several important issues have been thrown up by the ongoing financial crisis, which are currently being debated. First, an unresolved issue is how to cope with liquidity stresses under unusual circumstances. The regulators need to judge the effectiveness of emergency policies, like deposit insurance and central bank funding. The regulators have to be more vigilant about maturity mismatches between banks' assets and liabilities and look at cash flows in off-balance sheet as well as on-balance sheet liabilities. How banks manage liquidity internally may also require closer attention of the regulators. Second, it is also being debated whether 'procyclicality' of capital requirements is one of the factors with inherent tendency to escalate the impact of booms and busts. It is being argued that defences should be built before the need to put them in use arises rather than after the event. A related issue is mark-to-market accounting for assets in a situation when there isn't any functioning market. In severe 'bust' scenarios, marking down may raise concerns which may lead to more marking down potentially beyond the real value of the asset. Third, the role of non-banks in the financial system is also being examined from a regulatory perspective. While banks have traditionally been heavily regulated, there was no regulatory control or relatively little regulatory or supervisory control over non-banks, even though non-banks had become a much more important element in the financial system. There are questions whether non-banks should also be bailed out by the central banks and governments, which raise serious moral hazard concerns (Volcker, 2008). Fourth, it is being debated whether institutions should be allowed to become so big and so complex that their problems can have system-wide repercussions. A rethinking is, therefore, taking place on the advantages of smaller banks though in bigger numbers. Finally, the role of credit rating agencies is being subjected to critical reassessment. There is active discussion on the need for credit rating agencies to clearly differentiate the ratings for structured products, improve the disclosure of their rating methodologies, and assess the quality of information provided by originators, arrangers, and issuers of structured products.

10.169 In order to respond to the crisis, a wide menu of solutions and prescriptions has been offered by various stakeholders. First, risk management frameworks, including the governance arrangements in banks and financial institutions, need to be reviewed by the managements in the light of recent experiences. Second, supervisors need to play a more active role in scrutinising the risk management practices, including stress testing and governance arrangements, off-balance sheet entities and structured products. At the same time, it is crucial to recognise that risk management cannot be achieved solely by regulation. Consolidated supervision and prudential reporting need to be applied to off-balance sheet entities associated with financial institutions and to loans sold with implicit or explicit recourse. There is a need to review the prudential norms linked to external ratings assigned by the credit rating agencies (CRAs). Third, supervisors should encourage institutions to develop more robust models which use more prudent and reliable assumptions and stress testing methodologies; and monitor more closely the internal processes and controls for managing risk. Fourth, there is a need to rationalise the regulatory and supervisory prescriptions with a view to reducing the scope for arbitrage. This also calls for closer coordination of the relevant supervisors/supervisory arms. Fifth, it is necessary to correct the imbalances in the incentive mechanisms at various levels. Sixth, greater transparency is not only necessary to make the markets more efficient and to optimise the allocation of capital, but it is also considered to be the best insurance policy against irrational herd behaviour and unjustified contagion in times of stress. Seventh, there is a need to collectively review and resolve the element of pro-cyclicality in prudential regulations, accounting rules, and the attitude of the authorities that tend to apply these. Eighth, it is necessary for the CRAs to improve their governance and rating methodologies. Ninth, arguably it is useful to re-visit the relevant accounting standards and explore the scope for applying fair value accounting through the cycle so as to mitigate pro-cyclicality. Tenth, supervisors should have clear authority to intervene at the first sign of weakness, preferably much before the institution's net worth turns negative. Finally, deposit insurance systems should aim to limit the likelihood of retail depositor runs in troubled banks through adequate coverage, and have the capacity to pay depositors quickly (Reddy, 2008). It is also being postulated that regulatory instruments should be used to address financial asset market bubbles and credit booms. It has been suggested that supplementary capital requirements and liquidity requirements should be imposed on all systemically important highly leveraged institutions – commercial

banks, investments banks, hedge funds, private equity funds, among others. These supplementary capital and liquidity requirements could either be managed by the central bank in counter-cyclical fashion or be structured as an automatic financial stabiliser (Buiter, 2008).

10.170 Several measures have been initiated to strengthen the banking system in India recently. One, banks were urged to review large foreign currency exposures and put in place a system for monitoring such unhedged exposures on a regular basis so as to minimise risks of instability in highly uncertain conditions. Banks were also urged to carefully monitor corporate activity in terms of treasury/trading activity and sources of other income to the extent that embedded credit/market risks pose potential impairment to the quality of banks' assets. Two, comprehensive guidelines on derivatives, laying down broad generic principles for undertaking all derivative transactions, management of risks and sound corporate governance requirements as also adoption of suitability and appropriateness policy, were put in place.

10.171 In the wake of the turmoil in global financial markets, the FSF brought out a report in April 2008 indentifying the underlying causes and weaknesses in the international financial markets. The Report contained, *inter alia,* proposals of the FSF for implementation by end-2008 regarding strengthening prudential oversight of capital, liquidity and risk management, enhancing transparency and valuation, changing the role and uses of credit ratings, strengthening the authorities' responsiveness to risk and implementing robust arrangements for dealing with stress in the financial system. The Reserve Bank has put in place regulatory guidelines covering many of these aspects, while with regard to others, actions are being initiated. In many cases, actions have to be considered as work-in-progress. In any case, the guidelines are aligned with global best practices while tailoring them to meet country-specific requirements at the current stage of institutional development.

10.172 The regulatory and supervisory framework in India as evolved from time to time has served the country well. However, going forward, there will be several issues that would need to be addressed to ensure the stability and long-term growth of the banking sector.

Supervision needs to continue with the Reserve Bank

10.173 Some countries have separated the supervision from the central bank and entrusted it to an independent authority primarily to avoid the conflict between regulatory function and the objectives of monetary policy. Separation of banking supervision from the central bank may adversely affect its information flows. As generally Governments want the central banks to act on their behalf, central banks with supervisory functions in developing economies are likely to have better funding, more reliable and better expertise in the areas of financial supervision and regulation. Here, it needs to be noted that in recent years in at least two countries (Finland and Hong Kong in 1993), a shift in institutional responsibility for bank supervision has occurred. Banking supervision in these countries outside the central banking was not working satisfactorily and, therefore, it was moved to the central bank or a subsidiary of the central bank. In both Finland and Hong Kong, the decision to move banking supervision into the central bank reflected the view that there were important synergies between bank supervision and monetary policy responsibilities, apart from the dissatisfaction with the performance of the previous supervisory arrangement.

10.174 Emerging countries have been more prone to systemic disturbances, especially in the aftermath of an initial liberalisation of the banking system. Therefore, the main focus of banking supervision in such countries has perforce been on systemic stability rather than on customer protection and conduct of business issues. Thus, the connections between supervision and monetary policy, including LoLR operations, are more frequent and evident than in developed countries. In the case of less developed countries, more weight needs to be placed on ensuring the quality of the supervisory staff, *i.e.,* professional skills, independence from external pressures and adequate funding. These considerations point strongly towards retaining banking supervision with the central bank in emerging countries (Goodhart, 2000a).

10.175 The supervisory activities of the Reserve Bank have benefited from its price stability objective and it is recognised that safety and soundness of banks must be evaluated jointly with its responsibility to ensure stability and growth in the economy. The Reserve Bank with joint responsibility for monetary policy and supervision has both the insight and the authority to use techniques that are less blunt and more precisely calibrated to the problem at hand. Such tools improve its ability to manage crises and, more importantly, to avoid them. In this backdrop, the suggestions of separating banking sector regulation from the conduct of monetary policy by some

observers needs to be judged in light of the history, legacy and efficiency of the current regulatory system in India. In this context, it is also relevant to note that the UK itself has now been subject to severe criticism in the episode involving the Northern Rock for failure of coordination among the regulators (Mohan, 2007).

10.176 Since the Reserve Bank has the joint responsibility of monetary policy and supervision, it is also in a position to adopt prudential measures aimed at strengthening the financial system in combination with monetary policy tools. For instance, provisioning requirements for banks' exposure on standard advances in specific sectors were enhanced along with the increase in the repo rate and the CRR. When the central bank has proximity to markets and to banks, there are important synergies for the formulation of monetary policy because the central bank will be sensitive to key financial sector developments. Moreover, the central bank's supervisory role also makes it easier to get useful information for monetary policy from banks. The Reserve Bank as banking regulator and supervisor receives continuing information on banking activities. It can also obtain information quickly from leading systemically important institutions on exposures of relevance in times of turmoil. Thus, there is a high scope for prompt corrective action (Mohan, 2007).

Financial Conglomerates

10.177 The boundaries between banks and non-bank financial institutions have blurred as the banks have forayed into different types of non-banking financial services. Similarly, non-banking financial institutions have been dealing in various products resembling banking products. Several financial conglomerates have also emerged. In view of such 'conglomerisation' of financial activity, co-ordination among the regulators assumes paramount importance. To meet this challenge, some countries have instituted a 'super regulator' system. Some countries such as the US have instituted a system of umbrella supervision. Australia has followed an objective-based regulation. Although there has been blurring of distinctions among providers of various financial services in India, it has not been to the extent so as to replace the existing multiple regulators with a single regulator or any other regulatory structure. There are several issues involved in the institution of super regulator or any other structure as alluded to before, for which it is felt desirable to maintain the existing system of institution-based regulation. However, at the same time, in future the major challenge would be to ensure that financial conglomerates are regulated adequately. The existing monitoring mechanism for financial conglomerates has some limitations, although an attempt is being made to take a group-wide perspective through inter-regulatory discussions and co-operation.

Consolidated Supervision

10.178 The Core Principles for Effective Banking Supervision issued by the Basel Committee on Banking Supervision have included consolidated supervision as an independent principle. In view of increased focus on empowering supervisors to undertake consolidated supervision of bank groups, the Reserve Bank had introduced, as an initial step, consolidated supervision, consolidated accounting and prudential measures, including the group capital adequacy and other prudential ceilings (quantitative methods) for aggregated risks for the banking group such as concentration risk (prudential ceilings for individual borrowers and borrowers belonging to business groups) and risk of exposures to the sensitive sectors. There is need to enhance the consolidated supervision by prescribing more prudential measures such as prudential ceilings for sectoral and geographical concentrations for the bank groups.

10.179 There is also need to enhance the effectiveness of the supervisory system for bank-led conglomerates by integrating the process of consolidated supervision with the financial conglomerate monitoring mechanism. While the banking groups are covered under the consolidated supervision, the Reserve Bank, in consultation with other sectoral regulators, has put in place an off-site monitoring mechanism for the financial conglomerates. This also included the monitoring of financial conglomerates which are bank-led.

Principle-based Regulation

10.180 The UK has pioneered a move towards "principle-based" regulation from the traditional "rule-based" regulation. The perceived merits of principle-based regulation are that it provides more flexibility and is easier to understand and implement. It, however, pre-supposes greater reliance on the discretion and judgement of the supervisors and regulators in interpreting the broad principles. It, therefore, imposes onerous demands on the staff of supervisory agencies, who need to be technically skilled to understand the business model of the regulated institutions and apply principles to reach supervisory conclusions.

10.181 Despite its perceived advantages, the UK is the only country to have implemented principle-based regulation and that too only about a decade ago. The effectiveness of principle-based regulation has come under severe criticism following the Northern Rock crisis. A principle-based approach can complement the use of rules, which can provide needed clarity. The FSA itself has not dispensed with detailed rules entirely. Like all other banking regulators, India has followed a rule-based regulatory approach, though it has been argued in certain quarters that the Indian regulatory framework should migrate to principle-based regulation. The migration to an entirely principle-based regulatory regime may neither be desirable nor practical, given that there is very limited experience available internationally on its practicality and that too only in the UK. However, an appropriate mix of the rule-based and principle-based regulatory regimes needs to be explored.

Deposit Insurance

10.182 Deposit insurance serves two different but interrelated purposes (i) to protect small and unsophisticated bank depositors against losing a potentially important part of their wealth; and (ii) to avoid bank depositor runs. While there is no doubt that the deposit insurance is a necessary element of the regulatory framework, it is increasingly being realised that a deposit insurance scheme can have serious adverse effects. The system of deposit insurance should be designed in such a way that it mitigates the problem of moral hazard associated with it.

10.183 The deposit insurance system, which, at present, is being followed in India, is based on a flat rate of premium applicable to all banks taking insurance from DICGC. The system covers scheduled commercial banks, urban co-operative banks and RRBs. Competition in the banking sector has been intensifying and it may encourage banks to undertake riskier activities. It is, therefore, felt that it may be desirable to move to a risk-based system of deposit insurance. To begin with, such a system could be introduced for scheduled commercial banks. Subsequently, it could be considered for urban co-operative banks and RRBs.

10.184 The integration of risk-based deposit insurance with risk-based capital standards reduces procyclicality as alluded to before. Given the premise that deposit insurance should be subsidy-free or 'fair', the procyclical impact on banks from setting risk-based deposit insurance premiums is lower than the procyclical impact from setting risk-based capital requirements. The implication is that, from a procyclicality point of view, it is better to allow both insurance premiums and capital requirements to vary over the business cycle rather than fix insurance premiums and vary only capital requirements.

10.185 The feasibility of moving to risk-based premium may also have to be examined in the light of adequacy of the Deposit Insurance Fund. It may be mentioned that deposit insurance premium is exempt from income tax in most of the countries. However, in a few countries, including India, it is treated as income of the deposit insurer, resulting in outgo of a substantial part of the premium receipts for payment of income tax, inhibiting the growth of Deposit Insurance Fund to the desired level.

Home-Host Co-ordination Issues

10.186 The internationalisation of the banking sector requires greater cross-border co-operation in supervision of banks. While globalisation of financial activity brings efficiency gains, it also enhances contagion risk. The smooth operation of the financial system, therefore, requires exchange of information and coordination in decision making among home and host countries. In a crisis, it is essential that the authorities in different countries understand each other's assessments of the situation and, if possible, reach a common view. Globally, it is being felt that the present supervisory arrangements are not designed to prevent the cross-border externalities that financial crises may result in. Furthermore, there are deficiencies in how the supervision of internationally active banks works in practice, which can partly be explained by limitations in legislation and partly by lack of enough co-ordination among supervisors.

10.187 In the Indian context, though there has been exchange of supervisory information on specific issues between the Reserve Bank and a few other overseas banking supervisors, no formal arrangement/MoU has so far been entered into between the Reserve Bank and outside supervisory authorities for cross-border supervisory cooperation. This is because of the legal impediments with regard to sharing of credit information and permitting an agency other than the Reserve Bank to inspect a bank in India.

10.188 With Indian banks expanding their scope and scale of operations abroad through their branch network or through their subsidiaries, there is a need to subject such operations to comprehensive on-site

inspection in order to meet the demands of consolidated supervision. This need is felt all the more in respect of banking conglomerates having overseas offices, subsidiaries and associates. Further, with the implementation of Basel II norms, Indian banks operating abroad/foreign banks operating in India would be subjected to dual (home/host) country regulatory and supervisory prescriptions for all the three Pillars. This would necessitate (i) dialogue between the Reserve Bank and other overseas regulators for harmonisation/reconciliation; (ii) exchange of supervisory information between the Reserve Bank and other overseas regulators; and (iii) formal visits/information sharing by local supervisors to the overseas branches/offices of Indian banks and *vice versa*.

E-banking

10.189 E-banking opens up many opportunities for the banking sector through technological innovations. However, along with the benefits, it carries many risks too. Thus, the success of e-banking lies in effectively utilising the benefits offered by it, while successfully tackling the risks associated with the financial operations. Such risks are greater in the case of mobile banking as it involves much larger number of people as also greater spread. The challenge both for the bank and the Reserve Bank would be to remain vigilant to the risks posed by technological innovations.

VII. SUMMING UP

10.190 A series of banking crises that occurred in the last two decades around the world have shown that banking crises have systematic and disruptive effects on the financial system as well as the real economy. The fact that the economies have become more dependent on the financial systems implies that, if the financial system malfunctions, the adverse consequences are likely to be more severe than they used to be. The past decade or so has provided ample evidence of the costs of financial instability. To avoid or lessen the likelihood of a banking crisis and its negative impact on the economy, almost all the countries in the world have regulated banks by restricting their activities and entry, imposing capital adequacy requirements, and supervising their operations and management. Most countries have explicit or implicit deposit insurance in place as also the resolution procedures, including bailouts, of insolvent banks.

10.191 The basic rationale for exercising fairly close regulation and supervision of banking institutions, all over the world, has been their "special" nature as they accept uncollateralised public deposits, are part of the payment and settlement systems, and are an important channel for monetary policy transmission. Preventing the spread of contagion through the banking system, therefore, becomes an obvious corollary of regulating the banks to pre-empt any systemic crisis. Of course, a well-regulated and efficient banking sector also enhances the allocative efficiency of the financial system, thereby facilitating economic growth (Leeladhar, 2007). Ensuring safety and soundness of the banking system, therefore, becomes a predominant objective of the financial regulators. While the framework for exercising regulation and supervision over banks has evolved over the decades in tandem with the market and technological developments, the fundamental objective underlying the exercise has hardly changed.

10.192 In recent years, new thinking has emerged on several aspects of regulation and supervision. A major challenge faced by the regulators all over the world is to design an appropriate regulatory structure that takes care of the rapidly changing financial landscape. Some countries have adopted a single regulator approach to mirror the changes in the corporate structure. Australia has followed a unique objective-based regulatory structure. The US, which followed an umbrella supervisory approach a few years ago, now feels that in the long-run, the regulatory structure could move to objective-based regulation. Some countries such as the UK hived off supervision from the central bank to avoid conflict of interest with monetary policy. However, the recent Northern Rock experience shows that such a system has its own shortcomings as lack of co-ordination between the lender of the last resort and the supervisory authority was believed to be one of the factors behind the failure of the bank. Given the scarce supervisory resources and rapid product innovations, increased emphasis is being placed on market discipline to complement supervision. The fast evolving financial sector and the ever expanding rule books of regulatory bodies have forced some countries to adopt principle-based regulation. Another major development relates to the safety net. In recent years, the number of countries introducing the explicit deposit insurance system has increased sharply. While the design of the deposit insurance system is country-specific, many countries have switched over from the flat deposit insurance system to a variable rate deposit insurance system.

10.193 The Reserve Bank has progressively refined the regulatory and supervisory framework to ensure a safe and sound banking system comparable with

the best in the world. However, new challenges keep emerging following the fast pace of financial sector developments. Going forward, the Reserve Bank faces several challenges. These would be to (i) find appropriate mechanism to regulate the financial conglomerates; (ii) evolve home-host country co-operation for resolving issues arising from growing cross-border operations of banks; and (iii) build safeguards against risks arising out of rapidly growing e-banking, especially mobile banking services. These challenges could be met by initiating appropriate measures. Given the synergies between formulation of monetary policy and supervision, it is felt that the supervision of the banking sector should continue to remain with the Reserve Bank. Going forward, it would have to be ensured that financial conglomerates are regulated adequately. Several home-host country issues would arise which would necessitate dialogue and exchange of information with other overseas regulators. The use of e-finance products in the coming years is expected to increase significantly, which could expose banks to certain risks. It is, therefore, necessary for the Reserve Bank and the banks to be vigilant against such risks.

ANNEX X.1
Major Initiatives by the Board for Financial Supervision

The Board for Financial Supervison (BFS) has played a major role in strengthening the financial sector. Some of the decisions/directions given by BFS, since its inception, are as under:

Supervision

- An off-site surveillance function for banks in India was set up, the major components of which included establishing a system for in-house monitoring of banks and other credit institutions based on a prudential supervisory reporting framework, building a "memory" on all supervised institutions, and setting up a market intelligence and surveillance unit.
- The system of bank inspections in terms of focus, process, reporting and follow-up based on CAMELS model was set up, which evaluates banks' Capital Adequacy, Asset Quality, Management, Earnings, Liquidity and Systems and Control, but excludes the audit elements existing under the earlier inspection system. Subsequently, this was extended to financial institutions as well.
- The role of statutory auditors of banks was enlarged in the supervisory process by using them as agents. The Audit Sub-Committee reviewed, *inter alia*, the position and the need for more disclosure and transparency in the final accounts of banks and decided that seven additional financial ratios should be disclosed in the 'notes on account' in the Annual Reports of banks from the year 1997-98. All Indian private sector banks were advised about the minimum eligibility norms prescribed for audit firms to be appointed as their statutory auditors from 2001-02 onwards.
- The internal defenses within the supervised institutions such as corporate governance, internal control and audit function, and management information and risk control systems, were strengthened as an extension of the task of supervision.
- The system of half-yearly review introduced for the listed scheduled commercial banks in September 2001 and the format of review reports approved by the Sub-Committee was finalised in consultation with the Securities and Exchange Board of India (SEBI).
- To ensure consistency in the regulatory intervention process across banks, in December 2002, the BFS approved a framework for prompt corrective action containing a schedule of corrective structured actions and discretionary actions at different trigger points. Keeping in view the emerging supervisory concerns, the BFS also decided to place banks which were showing serious concerns under monthly monitoring. Under this system, certain key financial parameters of the banks like capital to risk-weighted assets ratio (CRAR), exposure to sensitive sectors, managerial problems and promoters' share holdings are analysed at the end of each month to monitor the progress made by them. Supervisory concerns in respect of these banks identified through the analysis of key financial parameters are placed before the BFS every month for its consideration and for providing guidance.
- BFS provided significant thrust for improving housekeeping in banks by reviewing analytical reports on balancing of books, reconciliation of inter-branch and Nostro accounts and providing further necessary direction. As part of monitoring of frauds, banks were advised to implement the recommendations of the Committee on Legal aspects of Bank Frauds (Chairman: Dr. Mitra) that could be implemented without any legislative changes.
- Under the BFS guidance, the RBS process was introduced on a pilot basis in select banks during 2003-04, initially in parallel with the present system of inspection under CAMELS/ Capital Adequacy, Asset Quality, Liquidity, Compliance and System (CALCS).
- In 2006-07, the BFS directed that the second round of supervisory review process (SRP) with regard to banks' exposures to sensitive sectors be initiated for select banks, based on off-site data. The process covered on-site focused examination to assess the risk exposures of the individual banks with reference to their actual control environment, procedures, and compliance with internal and regulatory norms. Accordingly, on-site scrutinies were conducted in select banks, which brought out that banks had put in place certain policies to mitigate the risks associated with their increased exposure to the real estate sector.
- In order to capture the vast and significant changes taking place in the banking sector, the supervisory rating model based on CAMELS/CALCS used for the purpose of rating the commercial banks in India during the Annual Financial Inspection (AFI) was revised comprehensively to ensure greater objectivity in assessment by introducing benchmarks based on industry averages/frequency distributions.
- The risk profile templates and supervisory risk rating system were revised and a new methodology for risk mapping and risk aggregation was formulated. Banks were advised to use the revised format for undertaking risk profiling exercise.

Prudential Measures

- The capital adequacy standards and disclosure parameters for banks were set up. A new supervisory mechanism for NBFCs and methodology for supervisory on-site through outside chartered accountants were also instituted. The BFS also approved the modalities for issuance of certificates of registration to NBFCs.
- In 2004, taking note of the large UCBs facing serious problems with regard to solvency and liquidity, the State Governments concerned were advised to infuse capital funds to ensure that the banks attained the minimum CRAR level.
- Recognising the risk facing the banks due to their exposures to the real estate sector, provisioning requirements and risk weights on real estate exposures were tightened.
- Taking note of the need for enhanced capital funds under Basel II, banks' capital raising options were considered by the BFS and detailed guidelines on introduction of additional instruments for raising capital, *i.e.*, Innovative Tier 1 instruments and upper Tier 2 instruments were issued to banks. Detailed guidelines were also issued to banks rationalising the usage of floating provisions and it was stipulated that the floating provisions could be used only for contingencies under extra-ordinary circumstances for making specific provision in the impaired assets after obtaining the board's approval and with prior permission of RBI, and that the banks' boards should lay down an approved policy defining extra ordinary circumstances and regarding the level to which floating provisions should be created. As regards appropriation of reserves, it was decided that in order to ensure that recourse to drawing down the Statutory Reserves is done prudently and is not in violation of any of the regulatory prescription. Banks, in their own interests, should take prior approval from the Reserve Bank before any appropriation is made from the statutory reserves.
- Under the Basel framework, the adequacy of capital and the probability of losses incidental to a bank's operations are related to the riskiness of its assets. This weighted assets approach did not give adequate attention to the concentration of risk on the liability side of banks. In the context of the increasing importance and awareness of the concentration risk on the liability side of banks, the Board examined the matter in detail and in order to reduce the extent of concentration on the liability side of the banks, more particularly Inter-Bank Liabilities (IBL), it was prescribed that IBL of a bank should not exceed 200 per cent of its networth as on 31st March of the previous year. However, individual banks may, with the approval of their boards of directors, fix a lower limit for their inter-bank liabilities, keeping in view their business model. The banks whose CRAR is at least 25 per cent more than the minimum CRAR (9 per cent), *i.e.*, 11.25 per cent as on March 31, of the previous year, are allowed to have a higher limit up to 300 per cent of the net worth for IBL. The limit prescribed above includes only fund-based IBL within India (including inter-bank liabilities in foreign currency of banks operating within India). In other words, the IBL outside India are excluded. The existing limit on the call money borrowings prescribed by the Reserve Bank operates as a sub-limit within the above limits.
- While the risk weights on housing loans extended by banks to individuals against mortgage of housing properties and investments in mortgage-backed securities (MBS) of Housing Finance Companies (HFCs), recognised and supervised by NHB were increased to 75 per cent for capital adequacy purposes, they were reduced to 50 per cent in respect of housing loans up to Rs. 20 lakh to individuals (subsequently raised to Rs.30 lakh) against the mortgage of residential housing properties, banks' investment in mortgage backed securities, which are backed by housing loans and are issued by the housing finance companies regulated by the National Housing Bank (NHB). Risk weight for commercial real estate was set at 150 per cent. Further, provisioning requirement for 'standard assets' was increased from 0.40 per cent to 1 per cent for commercial real estate loans and individual housing loans beyond Rs.20 lakh.

Corporate Governance

- Based on the recommendations made in the report of the Consultative Group of Directors of Banks/FIs (Chairman: Dr. A S Ganguly) on Corporate Governance, public and private sector banks were advised in June 2002 to initiate necessary actions for setting up an effective corporate governance framework.
- A comprehensive policy framework was formulated with regard to ownership of and governance in private sector banks envisaging diversified ownership and restrictions on cross-holding by banks.
- During the year 2004-2005, the BFS turned its attention towards ownership and governance in banks; further progress towards international best practices in prudential norms; greater deregulation and rationalisation of banking policies; and compliance with know your customer (KYC) norms. It was decided that banks that have governance concerns because of dominant ownership or other reasons should be kept under close monitoring. The

BFS, therefore, emphasised the desirability of diversified ownership in banks, 'fit and proper' status of important shareholders, directors, CEO and the need for a minimum capital/net worth criteria. Guidelines on credit cards were issued in November 2005 covering issues such as unsolicited cards and disclosure of various charges including interest charged on an annualised basis. Guidelines were also issued laying down the process for mergers, determination of swap ratios and disclosures. Furthermore, guidelines for purchase/sale of non-performing financial assets by banks, including valuation and pricing aspects and prudential norms were finalised. Guidelines on outsourcing of services by banks were also issued.

Local Area Banks

- In 1996, based on the recommendation of a Review Group, it was decided that issue of licenses be suspended till the existing Local Area Banks are brought to function on a sound basis.

VRS for Public Sector Banks

- The BFS recommended measures to deal with the accounting and regulatory implications of implementing voluntary retirement scheme (VRS) in public sector banks (PSBs). These broadly related to disclosures, allocation of expenditure and providing relief to banks as one-time burden without compromising regulatory standards.

Financial Conglomerates

- The BFS also took note of the risks arising on account of the intra-group transactions of banks. A monitoring mechanism for entities identified as Financial Conglomerates was put in place. As part of operationalisation of the same, the Reserve Bank obtains data/ information from the Designated Entities (DEs) for the 17 FCs (presently 8 FCs) under its purview. The analysis of FC returns raised certain issues like commonality of auditors, commonality of directors, certain directors being employees in other group companies, intra-group movement of executives having implications for 'arm's length' relationship/confidentiality of customer data, commonality of back-office arrangements/service arrangements between group companies, significant investments in the units of group mutual fund company and mortgage-backed securities issued by group company, non-reporting of certain intra-group transactions, including large Letter of Comfort transaction, *etc.* The half-yearly discussions held with the CEO of the DEs in association with other principal regulators to address outstanding issues/ supervisory concerns and for strengthening of the FC monitoring mechanism had thrown up certain issues, *viz*., absence of group-wide oversight mechanism, absence of enterprise-wide risk management, lack of group compliance policy, absence of a policy on intra-group transactions and exposures, lack of group-wide capital assessment, applicability of "fit and proper" criteria for the directors, CEO and shareholders, issues relating to group-wide liquidity management policy, identification and management of concentration risk, implementation of RBI's guidelines on outsourcing/ capital market exposure, frauds in the group entities, among others.

Urban Co-operative Banks

- The role and importance of urban co-operative banks (UCBs) in the Indian banking system has been duly recognised. However, several of the UCBs were found to be not having adequate capital funds. The issue of augmenting the capital funds of UCBs was considered. It is felt that UCBs should be allowed to issue four new instruments, *viz*., non-convertible debentures/bonds, special shares, redeemable cumulative preference shares and long-term deposits. The special shares, which are non-voting in nature and perpetual, are suggested to keep them different from ordinary shares to enable UCBs to raise capital at a premium. It was further felt that the Reserve Bank may make an exception with regard to rating requirement to enable the commercial banks to invest in the special shares and Tier II bonds issued by UCBs within the ceiling prescribed for investment in unlisted securities and that funds raised through new instruments should be exempted from CRR/SLR. The issues are under further deliberations of the Board.

Training Policy

- A training policy for officers was initiated to enable the officers to achieve the level of competence required to fulfill their individual roles and career expectations.