Banking Developments and Policy Perspectives (Part 2 of 2)

5. Financial Performance of Scheduled Commercial Banks during 1998-99

1.50 The working results of scheduled commercial banks (SCBs) during the year 1998-99 were somewhat mixed, and elaborate details of the results are given in Chapter II. Here the essence of the financial performance is captured for quick reference. Profits of banks came under pressure due to the rise in interest expended, deceleration in non-interest income, and increase in provisions and contingencies. Bank group-wise analysis indicates that the public sector banks recorded better performance as compared to the private sector banks.

Profitability

1.51 Operating profits of scheduled commercial banks declined by 4.4 per cent from Rs.14,640 crore in 1997-98 to Rs.13,992 crore in 1998-99. However, the operating profits of public sector banks increased by 3.0 per cent from Rs.10,274 crore in 1997-98 to Rs.10,578 crore in 1998-99 (Table I.9). The operating profits of old private sector banks, on the other hand, registered a significant decline of 26.9 per cent from Rs.1,082 crore in 1997-98 to Rs.791 crore in 1998-99. Similarly, the operating profits of new Indian private sector banks declined by 7.5 per cent from Rs.740 crore in 1997-98 to Rs.684 crore in 1998-99. In the case of foreign banks too, operating profits declined sharply by 23.8 per cent from Rs.2,545 crore in 1997-98 to Rs.1,940 crore in 1998-99.

1.52 With the exception of PSBs, provisions and contingencies as a proportion to total assets of all bank groups declined during 1998-99. The net profits of SCBs declined sharply by 28.3 per cent from Rs.6,502 crore in 1997-98 to Rs.4,660 crore in 1998-99. The ratio of net profits to total assets declined from 0.8 in 1997-98 to 0.5 in 1998-99. The net profits (as a percentage of total assets) of PSBs declined from 0.8 per cent in 1997-98 to 0.4 per cent in 1998-99. Among PSBs, the decline in net profit ratio was more pronounced in the case of SBI and its Associate banks.

1.53 Bank group-wise analysis indicated that nearly 50 per cent of both public sector and private sector banks showed rise in their net profits. An analysis of the public sector banks indicated that 13 out of 27 PSBs (48 per cent) have recorded increase in their net profits. Of these profits, the share of the nationalised banks was significant at 77 per cent. As regards foreign banks, 18 banks out of 44 (41 per cent) could achieve increase in their profits.

Spread

1.54 The spread i.e. net interest income (interest income minus interest expended) witnessed a decline in 1998-99 in almost all bank groups, except for the nationalised banks. For the nationalised bank group, the spread increased marginally from 2.78 per cent in 1997-98 to 2.79 per cent in 1998-99. Among other bank groups, foreign bank group witnessed largest decline (46 basis points) followed by old private sector bank group (41 basis points), SBI group (29 basis points), and new private sector bank group (25 basis points). For the SCBs, the spread declined from 2.95 per cent in 1997-98 to 2.78 per cent in 1998-99.

Non-Performing Assets

1.55 An important parameter in the analysis of financial performance of banks is the level of non-performing assets. The information on non-performing assets (NPAs) helps the commercial banking supervisors to monitor and discipline errant banks and helps investors to decide on the true financial worth of the banks. The prudential guidelines on asset classification and income recognition norms of the Reserve Bank have been complied with by all the commercial banks in order to present the real position of loan assets and also to come closer to the international accounting standards of banking operations.

1.56 During the year 1998-99, while Gross NPAs as a percentage to Gross advances of SCBs increased from 14.4 per cent in 1997-98 to 14.6 per cent in 1998-99, the net NPAs as a percentage of net advances also increased from 7.3 per cent in 1997-98 to 7.5 per cent in 1998-99. In absolute terms, NPAs of SCBs at Rs.58,554 crore as at the end of March 31, 1999 showed an increase of Rs.7,739 crore or 15.2 per cent over the previous year (Table I.10). Bank group-wise NPA position is discussed in detail in Chapter II.

Capital to Risk-Weighted Assets Ratio

1.57 One of the major determinants of soundness and viability of banks is the level of capital, and more pragmatically the level of capital weighted by the associated risks. As per the prudential norms, the commercial banks are required to achieve 9 per cent Capital to Risk-Weighted Assets Ratio (CRAR) by March 31, 2000. Capital adequacy ratio of public sector banks has declined marginally from 11.5 in 1997-98 to 11.2 in 1998-99.

1.58 In the period ahead, attempts must be made to consolidate the gains of earlier reform measures and in this context, attention needs to be focussed on factors which enhance competitiveness and efficiency of the banking sector (Box I.3). This is essential both to broaden and deepen the sector and enhance its role in economic development.

Table I.9: Bank Group-wise Financial Performance of Scheduled Commercial Banks-Some Important Financial Indicators: 1996-97, 1997-98 and 1998-99

(Rs. crore)

	Operating Profit (3+10)	Net Profit (4-7)	Income (5+6)	Other Income	Other Income	Expenditure (8+9+10)	Interest Expended	Operating Expenses	Provisions & Contin gencies
1	2	3	4	5	6	7	8	9	10
Scheduled Commercial Banks *									
1996-97	12,239.49	4,504.24	76,225.15	66,483.93	9,741.22	71,720.91	44,838.51	19,147.15	7,735.25
	(1.82)	(0.67)	(11.33)	(9.88)	(1.45)	(10.66)	(6.66)	(2.85)	(1.15)
1997-98	14,640.15	6,501.84	85,856.98	73,750.62	12,106.36	79,355.14	50,299.42	20,917.41	8,138.31
	(1.84)	(0.82)	(10.79)	(9.27)	(1.52)	(9.98)	(6.32)	(2.63)	(1.02)
1998-99	13,992.31	4,659.50	1,00,077.61	87,370.07	12,707.54	95,418.11	60,904.99	25,180.31	9,332.81
	(1.47)	(0.49)	(10.52)	(9.19)	(1.34)	(10.03)	(6.40)	(2.65)	(0.98)
Public Sector Banks (27)									
1996-97	8,887.18	3,152.17	61,260.52	53,900.34	7,360.18	58,108.35	36,338.62	16,034.72	5,735.01
	(1.60)	(0.57)	(11.01)	(9.69)	(1.32)	(10.45)	(6.53)	(2.88)	(1.03)
1997-98	10,273.72	5,029.67	67,706.58	59,076.17	8,630.41	62,676.91	40,173.57	17,259.29	5,244.05
	(1.58)	(0.77)	(10.42)	(9.10)	(1.33)	(9.65)	(6.19)	(2.66)	(0.81)
1998-99	10,577.50	3,258.09	78,867.07	69,474.31	9,392.76	75,608.98	47,839.75	20,449.82	7,319.41

	(1.37)	(0.42)	(10.24)	(9.02)	(1.22)	(9.82)	(6.21)	(2.65)	(0.95)
Nationalised Banks (19)									
1996-97	4,429.37	1,445.12	37,983.67	33,977.29	4,006.38	36,538.55	23,519.18	10,035.12	2,984.25
	(1.26)	(0.41)	(10.79)	(9.65)	(1.14)	(10.38)	(6.68)	(2.85)	(0.85)
1997-98	5,541.38	2,569.90	42,835.47	37,867.33	4,968.14	40,265.57	26,269.42	11,024.67	2,971.48
	(1.33)	(0.62)	(10.28)	(9.09)	(1.19)	(9.66)	(6.30)	(2.65)	(0.71)
1998-99	5,929.44	1,792.43	49,517.66	44,348.16	5,169.50	47,725.23	30,856.91	12,731.31	4,137.01
	(1.22)	(0.37)	(10.22)	(9.15)	(1.07)	(9.85)	(6.37)	(2.63)	(0.85)
State Bank Group (8)									
1996-97	4,457.81	1,707.05	23,276.85	19,923.05	3,353.80	21,569.80	12,819.44	5,999.60	2,750.76
	(2.18)	(0.84)	(11.39)	(9.75)	(1.64)	(10.56)	(6.27)	(2.94)	(1.35)
1997-98	4,732.34	2,459.77	24,871.11	21,208.84	3,662.27	22,411.34	13,904.15	6,234.62	2,272.57
	(2.03)	(1.06)	(10.68)	(9.11)	(1.57)	(9.63)	(5.97)	(2.68)	(0.98)
1998-99	4,648.06	1,465.66	29,349.41	25,126.15	4,223.26	27,883.75	16,982.84	7,718.51	3,182.40
	(1.63)	(0.51)	(10.27)	(8.79)	(1.48)	(9.75)	(5.94)	(2.70)	(1.11)
Old Indian Private Sector Banks(25)									
1996-97	839.51	405.69	5,388.93	4,732.56	656.37	4,983.24	3,431.20	1,118.22	433.82
	(1.89)	(0.91)	(12.12)	(10.65)	(1.48)	(11.21)	(7.72)	(2.52)	(0.98)
1997-98	1,082.33	442.68	6,437.80	5,496.15	941.65	5,995.12	4,083.77	1,271.70	639.65
	(1.97)	(0.81)	(11.71)	(10.00)	(1.71)	(10.91)	(7.43)	(2.31)	(1.16)
1998-99	790.92	310.99	7,361.03	6,497.75	863.28	7,050.04	5,087.73	1,482.38	479.93
	(1.21)	(0.48)	(11.25)	(9.93)	(1.32)	(10.78)	(7.78)	(2.27)	(0.73)
New Indian Private Sector Banks (9)									
1996-97	481.02	280.08	1,967.20	1,638.55	328.65	1,687.12	1,172.64	313.54	200.94
	(2.98)	(1.73)	(12.17)	(10.14)	(2.03)	(10.44)	(7.26)	(1.94)	(1.24)
1997-98	739.56	399.52	3,015.07	2,395.21	619.86	2,615.55	1,819.79	455.72	340.04
	(2.86)	(1.55)	(11.67)	(9.27)	(2.40)	(10.12)	(7.04)	(1.76)	(1.32)
1998-99	684.28	397.05	4,130.49	3,540.88	589.61	3,733.44	2,776.94	669.27	287.23
	(1.78)	(1.03)	(10.72)	(9.19)	(1.53)	(9.69)	(7.21)	(1.74)	(0.75)
Foreign Banks **									
1996-97	2,031.78	666.30	7,608.50	6,212.48	1,396.02	6,942.20	3,896.05	1,680.67	1,365.48
	(3.62)	(1.19)	(13.57)	(11.08)	(2.49)	(12.38)	(6.95)	(3.00)	(2.44)
1997-98	2,544.54	629.97	8,697.53	6,783.09	1,914.44	8,067.56	4,222.29	1,930.70	1,914.57
	(3.91)	(0.97)	(13.36)	(10.42)	(2.94)	(12.39)	(6.49)	(2.97)	(2.94)
1998-99	1,939.61	693.37	9,719.02	7,857.13	1,861.89	9,025.65	5,200.57	2,578.84	1,246.24
	(2.53)	(0.90)	(12.68)	(10.25)	(2.43)	(11.78)	(6.79)	(3.37)	(1.63)

Notes: 1. * The number of Scheduled Commercial Banks in 1996-97, 1997-98 and 1998-99 were 100, 103 and 105 respectively.
** The number of Foreign Banks in 1996-97, 1997-98 and 1998-99 were 39, 42 and 44 respectively.
2. Figures in brackets are percentages to Total Assets.

Table I.10: Gross and Net NPAs of Scheduled Commercial Banks: 1997 to 1999
(As at End-March)

(Amount in Rs. crore)

Year	Gross Advances	Gross NPAs			Net NPAs			
		Amount	Per cent to Gross Advances	Per cent to Total Assets	Net Advances	Amount	Per cent to Net Advances	Per cent to Total Assets
1	2	3	4	5	6	7	8	9
1997	301,698	47,300	15.7	7.0	276,421	22,340	8.1	3.3
1998	352,696	50,815	14.4	6.4	325,522	23,761	7.3	3.0
1999	401,252	58,554	14.6	6.2	370,397	27,774	7.5	2.9

6. Rural Credit and Credit to Small Scale Industries

Rural Credit

1.59 In the light of the need for rural sector development, the Reserve Bank is taking a series of measures for the timely and adecquate developmental credit flows to the rural sector through the National Bank (NABARD). Consequent to the announcement made by the Finance Minister in his budget proposals for 1996-97, the capital of NABARD has been significantly strengthened. Over a period of 5 years, it was expected to reach Rs.2,000 crore with the contributions from the Central Government and the Reserve Bank. During 1998-99, the Central Government and the Reserve Bank contributed Rs.100 crore and Rs.400 crore, respectively. This would take NABARD's capital to Rs.2,000 crore by March 31, 1999 (the additional contribution released in advance subject to amendment of NABARD Act, 1981). The limit under the General Line of Credit (GLC) to NABARD has also been enhanced. For the year 1998-99 (July-June), the Reserve Bank renewed the General line of credit (GLC) limit of Rs.5,700 crore, consisting of Rs.4,850 crore under GLC I (for seasonal agricultural operations) and Rs.850 crore under GLC II (for various other approved short-term purposes).

Credit to Small Scale Industries

1.60 The assistance provided by PSBs to small-scale industries has shown some improvements during 1998-99. According to available data, the credit facilities extended by PSBs constituted 17.3 per cent of net bank credit and 39.8 per cent of the total priority sector advances. A Committee headed by S.L. Kapur submitted its Report in June 1998 and suggested several measures for improving the credit delivery system and simplifying the procedures for credit to SSI sector. After examining the recommendations of the Committee, 64 of them have been accepted and recommended to banks for immediate implementation.

Box I.3: Factors Affecting Competitiveness and Efficiency in Banking

The financial sector plays a major role in the mobilisation and allocation of financial savings. Financial institutions, instruments and markets which constitute the financial sector act as a conduit for transfer of financial resources from the net savers to net borrowers. The gains to the real sector of the economy, therefore, depend on how efficiently the financial sector performs this basic function of intermediation so that the transaction cost is kept at the minimum. The banks form the most important segment of the financial sector. However, till the 'seventies, government regulations in most of the countries shielded the banks from the forces of competition. This policy was advocated keeping the 'safety and soundness' aspect of the banking institutions in mind. The market imperfection, however, led to operational inefficiency in the banks as under the administered interest regime, they could earn adequate spreads to cover their high operational costs. Consequent to various developments covering, inter alia the tremendous growth in Information Technology which dismantled the geographical boundaries and the prolific growth of the non-bank financial companies which made a dent on the banks' assured clientele, the competitive environment in the banking industry has increased.

Changes in the banking policy further facilitated the creation of a competitive environment. Deregulation of banking industry through abolition of administered rates for deposits and loans gave the banks the freedom in fixing prices for their products. To compete effectively with non-bank intermediaries, the banks were permitted to undertake newer activities like investment banking, securities trading, insurance business, etc., though on a selective basis. The number of players in the market was increased by easing entry barriers. In this set up, margins on traditional banking business declined prompting the banks to look for more fee-based services, and simultaneously, the banks were forced to pay maximum attention to operational efficiency so that their transaction costs remained at the minimum. Increased competitiveness led to inevitable changes in the market. The weak players were either crowded out or they were amalgamated with the strong ones.

Measurement of efficiency is generally done with reference to the production function. Koopmans (1951) provided a formal definition of technical efficiency where an increase in any output requires a reduction in at least one other output or an increase in at least one input and vice versa. Farrell (1957) suggested that one could usefully analyse technical efficiency in terms of realised deviations from an idealised frontier isoquant. It is also possible to define the optimum in terms of the behavioural goal of the production unit. In such a case, the efficiency is economic and is measured by comparing actual and optimum cost, revenue or profit - whichever the production unit is expected to pursue. Estimation of the frontier function is at the centre of studies on measurement of efficiency[1] . This approach has been extended to the banking industry also. The major issue in such exercises has been to identify suitable indicators for banks' outputs and inputs. As an alternative to measuring efficiency using frontier function approach, banks' efficiency can also be measured in terms of certain ratios of costs to assets or operating revenues. In a recent study, Rhoades (1998) has examined the efficiency effects of bank mergers using the ratios of (i) non-interest operating expenses/ total expenses to assets, (ii) total expenses to total revenue, (iii) non-interest expenses to adjusted operating revenue (net interest income+non-interest income), and (iv) staff expenses to assets. A decrease in the above ratios post-merger was indicative of improvement in efficiencies.

While different methods have been adopted to estimate the efficiency components, a number of studies have also attempted to explain the efficiency differences among the banks through various bank-specific, market-specific and regulatory characteristics. These studies have important implications for public policy and bank management. A review of these studies indicated that no consistent relationship emerged between variables like asset size, organisational form, market concentration and efficiency; however, the well capitalised banks were found to be more efficient and these efficient banks had lower levels of non-performing loans (Berger and Mester, 1997).

In India, till the 'eighties, the banks were operating in a protective environment characterised by administered interest rates, high levels of pre-emptions in the form of reserve requirements and directed credit. Banking sector reforms were initiated in India in 1992 against the backdrop of challenges faced by the Indian banks from within and outside the banking system in the country as well as forces of globalisation operating worldwide. The accent of the reform process was to improve productivity and efficiency of the financial system. The major policy initiatives taken under the financial sector reform included a planned reduction in the level of statutory pre-emptions and a gradual deregulation of interest rates. As part of financial sector reform, effective pre-emption level has been brought down from 54 per cent to less than 35 per cent (Reddy, 1999). The structure of administered interest rates has been almost totally dismantled. Competition among the banks was sought to be fostered by two different policy measures. First, with the amendment of the Nationalisation Act, State owned banks were allowed to access the market to raise funds from the public. Having public as part of the ownership of the bank makes it more conscious of the need to run the institution efficiently and earn profit. Accountability in that sense increases. Secondly, new banks in the private sector were allowed to be set up and entry of foreign banks was liberalised. The decision to allow the setting up of Local Area Banks was taken with the purpose of creating a more competitive environment in rural and semi-urban areas. Simultaneously with the deregulation measures, capital adequacy measures and prudential norms relating to income recognition, asset quality and provisioning requirements were introduced so as to strengthen the safety and soundness of the banking system.

Induction of information technology and communications networking system is set to change the operating environment of banks drastically. Technology has already enabled some of the banks to introduce innovative products to their customers in the form of ATM facility, telebanking, homebanking, 'anytime' and 'anywhere' banking, etc. Technology can also be harnessed in automating and networking the branches that will ensure timely flow of information and aid decision making process. A proper Management Information System can make a major impact on the pricing of deposits, loans and other services provided by banks. The Committee on Technology Upgradation in the Banking Sector, appointed by the Reserve Bank, in its Report submitted in July 1999 has provided a medium term road map for absorption of technology by banks and financial institutions. The banks that can adopt and absorb the new technology faster will have a competitive edge over their rivals.

While the enabling policy framework and the operating environment provide a platform for improving the efficiency of the banking sector, its ultimate success depends on how individual banks respond to the competitive environment, identify their core competencies and reposition themselves effectively. These issues have been adequately addressed by the Second Narasimham Committee (1998) and according to the Committee will form part of the agenda of the second generation of reforms in the banking sector. One of the major factors affecting

efficiency is the organisational structure of the banks. With a view to reaping full benefits of liberalisation, the organisational structures of the banks need to be studied carefully. In this context, the chain of command needs to be shortened with adequate authority delegated to the branches. This would also help to enhance efficiency. In addition to the organisational structure, adoption of proper internal systems and methods can greatly help in efficient functioning of the banks. Another issue that assumes importance in improving the efficiency of the banks is the human resource development. Recruiting the right people, training/ retraining them on a continuous basis keeping in view the changing environment and increasing complexities, and having a remuneration/incentive structure conducive to keeping their morale high, are considered integral part of the process. Another significant factor determining the competitiveness is the customer service. The realisation that customer satisfaction is essential for survival and growth has dawned on all the banks. The banks that will emerge as the winners in the impending era will be truly customer-centric banks.

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1. There are two competing paradigms on how to construct frontiers. One uses mathematical programming techniques; the other employs econometric techniques. The chief advantage of the mathematical programming or Data Envelopment Analysis (DEA) approach is that no explicit functional form need be imposed on the data. However, the calculated frontier may be warped if the data are contaminated by statistical noise. The parametric approach can handle the statistical noise, but it imposes an explicit, and possibly overly restrictive, functional form for technology. Unless panel data are available, an explicit distribution for the inefficiency term must be imposed as well.

7. Technology and Payment System

1.61 Banks play an important role in the payment and settlement system of financial transactions. The introduction of liberalisation measures in the banking sector and the emergence of new private sector and foreign banks equipped with latest technology, led to an increase in competition in the banking sector. Technology upgradation is taking place in PSBs in a phased manner. Computerisation is increasingly being applied in day to day deposits and loan operations, but the pace at which it has moved so far, has been somewhat limited. Moreover, there is a need for computerisation in a large number of areas of operations of banks, with customer service as the main focus. Management information system could be further improved by affecting modern information technology methods. In the case of many industrial countries,

due to advancement of information technology, virtual banking has gained more prominence and in the days to come, banks have to hasten the process of the computerisation with a view to improving competitiveness (Box I.4).

1.62 To further upgrade the existing technology in the banking sector and also to suggest measures for implementation, the Reserve Bank appointed a "Committee on Technology Upgradation in the Banking Sector". The Committee in its Report, submitted in July 1999, recommended a new legislation on Electronic-funds-transfer system to facilitate multiple payment systems to be set up by banks and financial institutions. The major recommendations of the Committee are summarised in Box I.5.

Box I.4: Virtual Banking

The practice of banking has undergone a significant transformation in the nineties. While banks are striving to strengthen customer relationship and move towards 'relationship banking', customers are increasingly moving away from the confines of traditional branch-banking and are seeking the convenience of remote electronic banking services. And even within the broad spectrum of electronic banking, the aspect of banking that has gained currency is virtual banking.

Broadly speaking, virtual banking denotes the provision of banking and related services through extensive use of information technology without direct recourse to the bank by the customer. The origin of virtual banking in the developed countries can be traced back to the seventies with the installation of Automated Teller Machines (ATMs). Subsequently, driven by the competitive market environment as well as various technological and customer pressures, other types of virtual banking services have grown in prominence throughout the world.

It is possible to delineate the principal types of virtual banking services. These include Automated Teller Machines (ATMs), Shared ATM networks, Electronic Funds Transfer at Point of Sale (EFTPoS), Smart Cards, Stored-Value Cards, phone-banking, and more recently, internet and intranet banking. The salient features of these services are the overwhelming reliance on information technology and the absence of physical bank branches to deliver these services to the customers.

Three evolutionary phases of virtual banking services, which represent the impact that the particular application has achieved within the industry have been described in the literature. These include (a) the inception phase, where the technology behind the application is in its infancy and a substantial amount of investment is required so as to make the application widely available commercially; (b) the growth phase, where the application is increasingly available to the customers and the technology behind the application is widely available; and (c) the maturity phase, wherein the application is in widespread use and institutions not offering such applications are likely to be at a competitive disadvantage.

The financial benefits of virtual banking services are manifold. Firstly, virtual banking has the advantage of having a lower cost of handling a transaction via the virtual resource compared to the cost of handling the transaction via the branch. Secondly, the increased speed of response to customer requirements under virtual banking vis-à-vis branch banking can enhance customer satisfaction and, ceteris paribus, can lead to higher profits via handling a larger number of customer accounts. It also implies the possibility of access to a greater number of potential customers for the bank without the concomitant costs of physically opening branches. Thirdly, the lower cost of operating branch network along with reduced staff costs leads to cost efficiency under virtual banking. Fourthly, virtual banking allows the possibility of improved quality and an enlarged range of services being available to the customer more rapidly and accurately and at his convenience. On the flip side of the coin, however, it needs to be recognized that such high-cost technological initiatives need to be undertaken only after the viability and feasibility of the technology and its associated applications have been thoroughly examined. It is not the inherent sophistication of technology, but the usefulness it offers to customers and, by extension, the commercial advantage it provides to institutions that needs to be kept in mind before going ahead with such technological practices.

Virtual banking has made some beginning in the Indian banking system. ATMs have been installed by almost all the major banks in major metropolitan cities, the Shared Payment Network System (SPNS) has already been installed in Mumbai and the Electronic Funds Transfer (EFT) mechanism by major banks has also been initiated. The operationalisation of the Very Small Aperture Terminal (VSAT) is expected to provide a significant thrust to the development of INdian FInancial NETwork (INFINET) which will further facilitate connectivity within the financial sector.

The popularity which virtual banking services have won among customers, owing to the speed, convenience and round-the clock access they offer, is likely to increase in the future. However, several issues of concern would need to be pro-actively attended. While most of electronic banking have built-in security features such as encryption. Prescriptions of maximum monetary limits and authorizations, the system operators have to be extremely vigilant and provide clear-cut guidelines for operations. On the large issue of electronically initiated funds transfer, issues like authentication of payments instructions, the responsibility of the customer for secrecy of the security procedure would also need to be addressed.

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8. WTO and Financial Services

1.63 It is well recognised that financial services play an important role in the overall economic development of a country. The scope for international trade in financial services has grown rapidly over the last two to three decades influenced by the development of new technologies, especially in telecommunications, the spread of financial libralisation as a means of achieving the financial policy objectives and the expansion of foreign investments.

1.64 Financial services covered under WTO commitments including insurance, banking telecommunications, and maritime transport were left unfinished at the end of Uruguay round negotiations held in 1993. The delay in reaching commitments in financial services brought about an interim agreement in 1995 negotiations by WTO Members. In this round, improvement took place in the schedules of specific commitments made by 29 WTO Members (counting the European Union as one) in financial services. However, the commitments made by Member countries remained unsatisfactory and finally the negotiations on financial services in the context of the General Agreement on Trade in Services (GATS) were concluded in December 1997 after several rounds of negotiations. These negotiations brought under its umbrella the largest service sector, including all banking and other financial services, and all insurance related services, fully subject to multilateral rules.

1.65 Financial services include two broad categories of services: insurance and insurance-related services and banking and other financial services. These two categories are further subdivided as detailed below:

Insurance and insurance-related services

1.66 Insurance and insurance-related services cover life and non-life insurance, reinsurance, insurance intermediation such as brokerage and agency services, and services auxiliary to insurance such as consultancy and actuarial services.

Banking and other financial services

1.67 Banking includes all the traditional services provided by banks such as acceptance of deposits, lending of all types, and payment and money transmission services. Other financial services include trading in foreign exchange, derivatives and all kinds of securities, securities underwriting, money broking, asset management, settlement and clearing services, provision and transfer of financial information, and advisory and other auxiliary financial services.

1.68 While certain GATS obligations apply across-the-board, others depend on the sector-specific commitments assumed by individual members. The liberalising content of the GATS depends on the extent and nature of sector-specific commitments assumed by individual members. The core provisions of the GATS in this context relate to market access, national treatment and additional commitments. The GATS Schedule of commitments are complex documents containing, for each member, market access, national treatment and additional commitments, up to sixteen sub-sectors of financial services. WTO commitments of India on Financial Services are given in Appendix Table I.1.

Box I.5: Major Recommendations of Vasudevan Committee on Technology Upgradation in the Banking Sector (1999)

1. Communication infrastructure and usage of INFINET

- The approach that could be considered for improving the effectiveness of VSAT network aim at enhancing the transponder capacity to the extent feasible and the number of outroutes as the demand grows.
- For both inter-bank and intra-bank applications, it is necessary to have an application architecture keeping in mind that the INFINET backbone network will be VSAT based.

2. Standardisation and Security

- There should be an appropriate institutional arrangement for key management and authentication by way of a certification agency. RBI may consider appointing IDRBT as the certification agency for security management.
- Banks should adopt widely used standard of cryptography procedures to prevent data tamper during transmission.
- The technology should be allowed to evolve into standard-based solutions for multi-vendor heterogeneous environment working co-operatively and collectively for EFTPOS, including the debit, credit and Smart cards based operations.

3. Computerisation of Government Transactions

- There is a need to computerise all branches of banks dealing with Government transactions.
- The computerisation of Government departments should be synchronised with the computerisation of bank

branches dealing with Government transactions.

- All PAOs/Circle offices should be computerised not later than March 31, 2001 and DDO/Treasury offices before March 31, 2002 in alignment with the computerisation of FPBs and dealing branches.

4. Data Warehousing, Data Mining and Management Information System

- A robust MIS founded on data warehousing and data mining at individual bank level is essential for implementing various regulatory guidelines including the latest one on ALM.

- A Task Force may be set up by IBA to explore feasible methodology for working out a unique identification system for individual customer data bases at banks.

5. Legal Framework for Electronic Banking

- The Reserve Bank may promote amendment to the Reserve Bank of India Act, 1934 and assume the regulatory and supervisory powers on payment and settlement systems. Simultaneously, the RBI may promote a new legislation on Electronic Funds Transfer System to facilitate multiple payment system, to be set up for banks and financial institutions.

- The RBI and IBA should pursue with the Department of Telecommunications (DoT)/ other competent Authority to permit encryption of data files/messages transmitted through communication channels for facilitating easier access to remotely located branches to the INFINET network.

6. Other Related Issues

- Re-engineering: Banks may choose the branches and areas of operation where they have already introduced a certain degree of automation and computerisation and review the systems and procedures in these branches/areas to adapt them to the technology that is newly introduced.

- The newly established private banks which have the advantage of starting with the latest technology from the very beginning, should take up the process re-engineering in right earnest.

- Each bank should chalk out a time-bound programme, synchronising with the level of computerisation being planned by it, stemming from the directions of the top management.

7. Issues Relating to Human Resource Development

- Education of staff on IT should be given due importance. The training establishments of the banks should be strengthened with adequate personnel and other infrastructure facilities, to impart necessary IT training to all levels of staff.

8. Sharing of Experiences on Technology Implementation

- The meetings of CPPD Chiefs should be sufficiently frequent enough to be effective. Meetings by the IBA for this purpose, once in two months would be useful.

9. Perspectives

1.69 The present section places in perspective both the macro and micro economic issues which have a bearing on the banking (and financial) system *vis-à-vis* the best international standards. The major macroeconomic policy issues in this sphere would relate to (i) strengthing the foundations of the banking system, (ii) streamlining banking procedures, (iii) encouraging human resource development, and (iv) bringing structural change in the banking system.

Strengthening the Banking System

Capital Adequacy

1.70 The efforts at strengthening the capital base of the banking system need to be continued so as to cope up with any additional risk factors. In the Monetary and Credit Policy of October 1998, banks have been advised to achieve a minimum capital adequacy ratio of 9 per cent by March 31, 2000. About the need, as emphasised in the second Narasimham Committee Report, for raising Capital to Risk-weighted Assets Ratio to reach 10 per cent by 2002 is to be duly recognised. The proposed capital accord of BIS (June 1999) further suggests that banks have to provide additional charge on capital for various kinds of risks including credit risk, market risk, operation risk, interest rate risk, etc. at an early date.

Risk Management

1.71 The mismatch between assets and liabilities has serious implications for interest rate risk, liquidity risk, foreign exchange risk, credit risk, etc. To manage these risks properly, risk management skills on the part of banks need tobe enhanced. The recent experience of banks facing assets-liability mismatches in the South East Asian countries provide enough evidence on the need for putting in place necessary asset-liability management (ALM) practices. The second Narasimham Committee has also addressed this issue and brought into focus the dangers to liquidity and solvency due to mismatches between assets and liabilities, in terms of either maturity and currency or value. The Committee recommended that banks are required to put in place ALM System with effect from April 1, 1999. The initial teething problems in adapting ALM would have to be addressed expeditiously. The Reserve Bank has complemented the ALM guidelines with guidelines on risk management on October 21, 1999 (Box I.6). Together the guidelines would serve as a benchmark to banks and help to establish an integrated risk management system.

Non-Performing Assets

1.72 A major issue challenging the performance of banks is the accumulation of non-performing assets (NPAs). While the gross NPAs of the banking sector have been reduced from 23.2 per cent in 1992-93 to 14.6 per cent in 1998-99, efforts need to be continued to reduce the ratio further. Besides, the net NPA ratios need to be brought down from 7.5 per cent in 1998-99. In this context, it may be recalled that for banks with international presence, the Narasimham Committee recommended the reduction of gross NPAs to 5 per cent by 2000 and 3 per cent by 2002; and net NPAs to 3 per cent by 2000 and 0 per cent by 2002 ratio. The feasibility of this recommendation would have to be explored, keeping in view the need to ensure adequacy of credit flows to all production activities of the economy. It is also necessary to work out the levels of NPAs at which the confidence in banking can be maintained at high levels as recommended by the Committee.

Asset Reconstruction Company

1.73 To address the problem of accumulated NPAs, the first Narasimham Committee, suggested the setting up of an Asset Reconstruction Fund, but this suggestion could not be implemented. Reiterating this arrangement, the second Narasimham Committee suggested the setting up of an Asset Reconstruction Company (ARC). The ARC, which would take over all loan assets in the doubtful and loss categories, would issue to the banks NPA Swap Bonds representing the realisable value of the assets transferred, provided the stamp duties are not excessive.

1.74 The international experience with such arrangements has, however, been mixed. In India, progress in setting up of ARCs, is yet to be seen partly because the Debt Recovery Act and other relevant legislations are yet to be strengthened. Besides, the ARCs could engender *moral hazard* problems. It is, therefore, necessary to attempt to make Debt Recovery Tribunals (DRTs) more effective in their operation. More importantly, debt recovery systems need to be improved across the board to ensure efficiency of the financial sector.

Problem of Weak Banks

1.75 While strong banks are able to consolidate the gains of the so far implemented reform measures, weak banks are grappling with the twin objectives of achieving profitability and ensuring compliance with the prescribed norms. The major challenge of the next few years relates to recovery of loans and viability of banks, in particular of those identified as 'weak' ones. Both legal changes and restructuring plans need to be put in place in these areas, recognising that the strength of the banking system is, often, no more than that of the weakest bank allowed to survive through regulatory forbearance. A Working Group (Chairman: Shri M.S. Verma) which was constituted by the Reserve Bank, to identify weak Public Sector Banks (PSBs), undertook a case by case examination and suggested a restructuring plan for the weak PSBs (October 1999) (Box I.7).

Box I.6: Reserve Bank Guidelines for Risk Management System in Banks

According to the guidelines the management of credit risk should receive the prime attention of the top management. The banks should put in place the loan policy, approved by the board of directors covering the methodologies for measurement, monitoring and control of credit risk. Banks should also evolve comprehensive risk rating system that serves as a single point indicator of diverse risk factors of counterparties in relation to credit and investment decisions. The Reserve Bank guidelines have stated that the activities of Asset-Liability Management Committee and Credit Policy Committee for management of credit and market risks need to be integrated.

The guidelines also require banks to evaluate portfolio quality on an on going basis rather than near about balance sheet date. The proposals for investment should be subjected to the same degree of credit risk analysis as loan proposals. The risk evaluation should also include total exposure, including investments. As regards off-balance sheet exposures, the current and potential credit exposures may be measured on a daily basis. Banks have also been asked to evolve a suitable framework to provide a centralised overview of the aggregate exposure on other banks' endeavour to develop an internal matrix that reckons the counterparty and country risks. To manage liquidity risk, banks have been asked to consider putting in place prudential limits on inter-bank borrowings, especially call fundings, purchased funds, core deposits to core assets, off-balance sheet commitments, swapped funds, etc.

Banks have been asked to evaluate liquidity profile under bank-specific and market crisis scenarios. They have also been asked to prepare contingency plans to measure the ability to withstand sudden adverse swings in liquidity conditions. Banks have been asked to fix definite a timeframe for moving over to Value at Risk (VaR) and duration

approaches for measurements of interest rate risk. The guidelines also mention that it would be desirable to adopt international standards on providing explicit capital cushion for the market risk to which banks are exposed. Banks should also adopt proper systems for measurement, monitoring and control of operational risk that is emerging in the wake of phenomenal increase in the volume of financial transactions. Banks operating in international markets have been asked to develop by March 31, 2001 suitable methodologies for estimating and maintaining economic capital. The other banks have been asked to formulate a medium-term strategy to comply with these requirements.

The guidelines on risk management have placed the primary responsibility of laying down risk parameters and establishing the risk management and control system on the board of directors. They have, however, stated that the implementation of the integrated risk management could be assigned to a risk management committee or a committee of top executives that reports to the board. The risk management guidelines also require banks to constitute a high level credit policy committee to deal with issues pertaining to credit sanction, disbursement and follow-up procedures and to manage and control credit risk on a whole bank basis. The Reserve Bank has further asked banks to concurrently set up an independent credit risk management department to enforce and monitor compliance of the risk parameters and prudential limits set by the board/credit policy committee.

The Reserve Bank has, however, stated that due to the diversity and varying size of balance sheet items between banks, it may neither be possible nor may it be necessary to adopt a uniform risks management system. The design of risk management framework should, therefore, be oriented towards the bank's own requirement dictated by the size and complexity of business, risk philosophy, market perception and the existing level of capital. In other words, banks can evolve their own systems compatible with the type and size of operations as well as risk perception. While doing so, banks may critically evaluate their existing risk management system in the light of the guidelines issued by the Reserve Bank and put in place a proper system for covering the existing deficiencies and requisite upgradation. The Reserve Bank has also asked banks to place the circular together with the guidelines before the board of directors at its next meeting. The bank should identify the gaps in the existing risk management practices and the policies and strategies for complying with the guidelines. The bank should report to the board the progress in implementation of the guidelines at half-yearly intervals.

Strengthening the Co-operative Structure

1.76 The reform measures adopted so far have focussed mainly on the commercial banking segment of the banking sector, without providing matching attention to the co-operative sector. Financial and managerial weaknesses of cooperatives have been a matter of concern for quite some time. State Governments and co-operatives have been demanding capital infusion for wiping out past losses. Unless the inherent weaknesses are adequately addressed, funds infusion alone may not solve the problem. In this respect, the areas that need careful examination include: (i) the existing branch network of co-operatives, (ii) the pattern of resources of co-operatives (owned funds, deposits, borrowings), (iii) the deployment of resources, (iv) the management and supervision, (v) the role of co-operative banks in the financial system and (vi) the regulatory framework for co-operatives. These issues relate to both urban and rural co-operatives. The essential spirit of the regulatory and reform measures adopted for the commercial banks should be extended to the co-operatives as well with necessary adaptations to suit the circumstances in which co-operative banks operate. This would imply that areas such as (i) strengthening of the regulatory and supervisory framework, and (ii) enhancing transparency and disclosure norms as the points of supervisory and regulatory reform should be focussed on in respect of co-operative banking system as well.

Box I.7: Report of the Working Group on Restructuring Weak Public Sector Banks

One of the major issues confronting the banking sector internationally is how to strengthen the capital base of banks and how to make them resilient to rising risk exposures. Goldstein (1996) had shown that in industrial countries, total capital-asset ratios have fallen from around 50 per cent in the early 'nineties to around 15 per cent presently. The study further argued that this led the Basle Committee on Bank Supervision to impose minimum risk-weighted capital-asset ratio of 8 per cent since 1988 and strengthen the capital base of financial institutions depending on their risk exposures.

It is widely agreed that the build-up of non-performing loans (NPA) has been an important factor that has eroded the profitability of public sector banks (PSBs) in India. As pointed out in the previous year's Report, gross NPAs of PSBs has moved up from Rs.39,253 crore in 1993 to Rs.45,653 crore in 1998. As percent of gross advances, NPAs of public sector banks stood at 16 per cent as at end March 1998, and these were significantly higher than that of the developed economies like the U.S. (1.1 per cent), Finland (2.7 per cent), Norway (3.2 per cent) and even the Asian economies like Malaysia (3.9 per cent) and Japan (3.4 per cent).

Subsequently, the Report of the Committee on Banking Sector Reforms (1998) (Chairman: Shri M. Narasimham) has acknowledged the import of the fact that NPAs of large magnitudes are a major impediment to the healthy performance of the banking sector. The Committee had underlined the need to reduce the average level of net NPAs for all banks to 3 per cent by 2002 and to zero for banks with international presence. Accordingly, the Committee, in its Report, provided two quantifiable definitions of weak banks which internalize the concept of NPA. Accordingly, a weak bank is one whose accumulated losses and net NPAs exceeds its net worth (definition 1); alternately, a weak bank is one whose operating profits less its income on recapitalisation bonds is negative for three consecutive years (definition 2).

Given that a high level of NPAs acts as a major hindrance to the profitability of banks, the Government has resorted to recapitalisation of banks in order to shore up their capital adequacy ratios (CAR). The recapitalisation of 19 nationalised banks was undertaken on January 1, 1994, and the recipient banks were required to invest the Government's capital subscription in Government bonds known as '10 per cent Recapitalisation Bonds, 2006'. Till 1998-99, an amount of Rs.20,446 crore has been expended as part of the process of recapitalisation of nationalised banks. Such recapitalisation has been widely used at different points of time in several countries including Chile (1984), Philippines (1986), Finland (1991), Hungary (1992-94) and Argentina (1994-95). However, as Sundarrajan and Balino (1991) have observed, the use of public money for recapitalisation often endangers efforts to rein in budget deficits. And even if budget deficits are viewed as (domestic) transfers rather than as real economic costs, it can compel the authorities towards less benign ways of deficit financing (e.g., an inflation tax); the rescue process itself can weaken the incentives for creditors to monitor the behaviour of banks in the future.

The problem of weakness in the banking sector has also been recognized in the Indian context. In view of the adverse implications that weak banks might have on the stability of the banking system, the Reserve Bank, in consultation with the Government of India, established a Working Group in February 1999 under the Chairmanship of M. S. Verma to suggest measures for the revival of weak public sector banks. The Working Group, in its Report submitted in October 1999, suggested a combination of seven parameters covering the three major areas of solvency, earnings capacity and profitability for identifying bank weakness. The parameters under solvency included the capital adequacy ratio and the coverage ratio[1] , those under earnings capacity included return on assets and net interest margin, whereas the parameters under profitability included ratios of operating profit to average working funds, cost to income and staff cost to net interest income plus all other income. The Group was of the opinion that criteria for detecting bank weakness, as provided by the Narasimham Committee, supplemented by an analysis of the performance based on the seven parameters detailed above, would serve as the framework for identifying weakness in banks in the future. Based on the aforesaid criteria, PSBs were classified into three categories: banks where none of the seven parameters were met (category 1), banks where all the parameters are met (category 2) and banks where some of the seven parameters are met (category 3).

The primary focus of the Group was restructuring of those banks which did not satisfy any (or most) of the seven parameters. For these banks, the Group suggested a two-stage operation. In stage one, the focus was to ensure restoring competitive efficiency through a four-pronged strategy consisting of operational, organisational, financial and systemic restructuring. Operational restructuring would comprise (i) basic changes in the mode of operations, (ii) adoption of modern technology, (iii) resolution of the problem of high non-performing assets through the setting up of a government-owned Asset Reconstruction Fund (ARF) and (iv) drastic reduction in the cost of operations,

through, among others, staff rationalisation measures. Organisational restructuring encompassed improved governance practices of the banks and enhancement in management involvement and efficiency. Financial restructuring was sought to be tackled via the recapitalisation route, which may be done for specific purposes and with conditions which the banks' management, including its Board of Directors, and the employee unions agree to fulfill before the restructuring process is initiated. Finally, systemic restructuring necessitated, inter alia, changes in the legal system and formulation of appropriate measures aimed at institution-building so as to support the restructuring exercise. The overall cost of restructuring of weak banks over the next three years is estimated to be of the order of Rs.5,500 crore, of which capital infusion would constitute Rs.3,000 crore, the NPA buyout process would constitute Rs.1,000 crore, the staff rationalisation measure would constitute Rs.1,100-1,200 crore and the remaining Rs.300-400 crore would be required for technology upgradation. Of these, the amounts for technology upgradation and staff rationalisation would be required to be provided in cash. For speeding up the recovery process of weak banks and the ARF, the Committee suggested that an arrangement should be worked out so that the Debt Recovery Tribunals (DRTs) attend to their cases on a priority basis. The options of privatisation and/or merger would assume relevance only in stage two of the restructuring process.

References

Goldstein, M. (1996), *'The Case for an International Banking Standard'*, Washington, D.C.: Institute for International Economics.
Government of India (1998), *'Report of the Committee on Banking Sector Reforms'*, (Chairman: Shri M. Narasimham).

Reserve Bank of India (1999), *'Report of the Working Group on Restructuring Weak Public Sector Banks'* (Chairman: Shri M.S. Verma).

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1. Coverage ratio is defined as the ratio of equity capital and loan loss provisions,less non-performing loans to total assets.

1.77 Improving the credit delivery system of cooperatives is vital for reaping productivity and employment gains and for strengthening the cooperative credit structure. The second Narasimham Committee has recommended the delayering of the co-operative credit institutions, keeping in view the need for reducing the intermediation cost and extending the benefit of cheaper RBI credit (through NABARD) to the ultimate borrowers. It is necessary to explore mechanisms by which credit delivery could be improved and the Primary Agricultural Credit Societies and ultimate borrowers could benefit from such initiatives.

Streamlining the Banking Procedures

Role of Auditors

1.78 In the context of the increasing adoption of international standards in banking operations and accounting methods in India, the system of audit plays an important role in ensuring a proper functioning of the banking system. After the recent experience of many East-Asian countries, external audit has emerged as an important factor in determining the soundness of the banking system. In India, auditors nominated by the Reserve Bank have played an important role in maintaining the overall soundness of the banking system. However, in view of the increasing role and operations of the banking system, the system of audit needs to be made more extensive and accountable, and needs to be in line with the internationally accepted standards.

Assets Classification and Income Recognition

1.79 It is essential to take steps towards proper classification of assets so as to improve efficiency and to ensure proper accounting of transactions into various categories viz, standard, sub-standard, doubtful, loss making, etc. as per international norms. The present norm of 18 months for categorising a sub-standard asset as doubtful, needs to be brought down to make it at par with the international practice of 12 months. As regards income recognition norms, it is important to pursue the implementation of international norm of 90 days in a phased manner by 2002, as against the current practice of 180 days, as recommended in the second Narasimham Committee Report.

Transparency and Disclosure in Final Accounts

1.80 Transparency and disclosure of bank accounts play an important role in encouraging healthy competition among the market players. One of the characteristic features of a perfectly competitive market model is the free flow of information or the transparency of business operations. Transparency not only helps the creditors whose funds are at risk to make optimal decisions regarding their investment portfolio, but also imposes market discipline on banks to perform well in a competitive manner. Accordingly, the banking sector's allocative efficiency and the enhanced private sector participation would be best facilitated if there is increased transparency in banking operations. In the case of highly diversified banks, it becomes difficult to make a priori judgements regarding their ability to control the risk component. Therefore, public disclosure acts as a speed breaker in funding risky activities by banks. Adequate and timely disclosures can help to reduce the probability of bank failures.

1.81 The second Narasimham Committee has already suggested larger disclosure of accounts by banks in a phased manner. Banks are now required to present classified accounts of both their assets and liabilities including foreign currency holdings in terms of maturity pattern. Banks are also required to disclose information relating to movements in provision accounts, in NPAs, lending to sensitive sectors and lending to related companies. Banks need to publish consolidated balance sheet of all entities whenever banks are subsidiaries in a conglomerate structure. Such disclosures and transparency practices would help to improve the process of expectation formation by the market players and the effectiveness of policies of banks. The progress so far achieved in this area needs to be further accelerated.

Opening of New Banks

1.82 The recent experiment regarding the opening up of new banks, has produced encouraging results and has been quite successful in enhancing competition in the banking sector in urban/metropolitan areas. However, it is also necessary to look beyond competition and explore possibilities of improving credit delivery in interior areas (rural / semi-urban). Presently, eight 'in-principle' approvals have been given for setting up of Local Area Banks (LABs), of which three have been registered.

Systems and Methods in Banks

1.83 The experience so far shows that the operational rules and norms of banking have not kept pace with the developments taking place in the banking sector. The cumbersome loan and documentation procedures in banks, which partly arise from legislative and regulatory requirements, impinge on the efficient functioning of the banking sector.

1.84 It is, therefore, very vital that the internal controls which consist of a wide spectrum of internal inspection and audit, submission of control returns by branches/controlling offices to higher level offices, visits by controlling officials to the field level offices, risk management systems, simplification of documentation procedures and efficient inter-office communication channels are strengthened. The implementation of such a control system would necessitate revisions in the 'Operational Manuals', audit procedures and better evaluation of clients. Some steps have already been initiated in this direction. The Board for Financial Supervision (BFS) of the Reserve Bank issued guidelines to banks to strengthen the internal control system. Besides, banks have been advised to constitute Audit Committees of the Boards to enable focussed attention by the Boards of the banks on internal control systems.

Setting up of Credit Information Bureau

1.85 Exchange of credit information between banks, and other financial entities is critical for preventing misutilisation of financial resources. A system needs to be developed where entrepreneurs with honesty and integrity are encouraged, and wilful defaulters are denied access to bank credit. Countries like Sri Lanka and Bangladesh have already set up Credit Information Bureau. In the Indian financial system too, there is a widely felt need to establish a Credit Information Bureau for the collection of credit information relating to borrowers from lending institutions and for the provision of such information to the financial system, so as to facilitate better distribution of credit to all sectors of the economy.

1.86 With a view to preparing an outline and exploring the possibilities of setting up a Credit Information Bureau in India, the Reserve Bank of India constituted a Working Group (Chairman: Shri N.H. Siddiqui). The Working Group submitted its report at the end of August, 1999, recommending the setting up of a Credit Information Bureau.

Information Technology Development in Banking

1.87 Information Technology and the Communication Networking Systems have revolutionalised the functioning of banks and other financial institutions the world over. In the highly industrialised countries, access to financial entities is on an on-line basis. Banks as well as other financial entities in India have only recently entered the world of information technology and computer networking.

1.88 Besides, the technology upgradation, an efficient payment system is needed to improve the effectiveness of monetary policy. Accordingly, in his mid-term review of the Monetary and Credit Policy on October 31, 1998, the Governor, Reserve Bank of India had announced that real time gross settlement (RTGS) system would need to be adopted with the help of an appropriate communications backbone (Box I.8).

Box I.8: Preparedness for Technology Upgradation and RTGS

One area that has witnessed a tremendous growth in recent years is one of information technology in the financial sector. And in recent times, information technology and the communications networking systems have virtually transformed the domain of operations of banks and other financial entities all over the world and enabled them to exploit economies of scale and scope through the lowering of transactions costs. Given the enormous volume of funds that are channeled through the payments and settlements system, information technology not only has manifold implications for the efficacy of monetary policy, but it has also a crucial bearing on the stability of the financial system as a whole. The implications of such technology-driven environment for Indian banks are immense. The wherewithal for the business that the banks undertake, the systems and procedures that they adopt, the services and products that they offer and the relationships they build and develop with their customers, both within the organization and outside, is expected to redefine their contours of operations in a world that is increasingly witnessing the rapid internationalisation and universalisation of banking operations.

While advances in information technology have made rapid strides in developed countries, in India, it is only recently that the world of information technology preparedness has made significant inroads in the sphere of banking operations. One can delineate three distinct, though not necessarily exclusive, areas where the application of information technology has been quite substantial.

Firstly, with regards to the payments and settlement systems, since the introduction of MICR cheques in the mid-eighties, the Reserve Bank has proceeded to make significant improvements in the functioning of financial entities with respect to their application of information technology. These include, introduction of Electronic Funds Transfer (EFT), introduction of inter-bank electronic payments system, introduction of a clearing bank for extension of delivery versus payment mode of trading in government securities, introduction of Automated Teller Machines (ATMs) by almost all major banks and the putting in place of a Shared Payments Network System (SPNS) termed SWADHAN in Mumbai. The Reserve Bank has also operationalised the Very Small Aperture Terminal (VSAT) network to provide reliable communication backbone to the financial sector. The setting up of the INdian FInancial NETwork (INFINET), based on satellite communication using VSAT technology, being jointly set up by the Reserve Bank, public sector banks and the Institute for Development and Research in

Banking Technology (IDRBT) at Hyderabad is expected to facilitate connectivity within the financial sector. Side by side, the Year 2000 (Y2K) problem is being proactively dealt with by the Reserve Bank in co-ordination with the Indian Banks' Association (IBA) and other segments of the financial system. In the light of the recommendations of the Committee on Banking Sector Reforms (Chairman: Shri. M. Narasimham) in 1998, the Reserve Bank had appointed a Committee on Technology Upgradation in the Banking Sector to further undertake a close examination of the issues pertaining to technology and suggest time-bound steps for implementation of the same. The Committee, in its Report submitted in July 1999, recommended several steps including outsourcing of software technology, establishment of a data warehouse on banking and finance for the data collected under the regulatory provisions and furthermore, the establishment of an appropriate institutional arrangement for key management and authentication by way of a certification agency and the appointment of the IDRBT for the purpose.

Against the backdrop of preparedness towards technology upgradation, the Reserve Bank has made a pro-active effort in deciding to move towards a Real Time Gross Settlement (RTGS) System. In line with the announcements in the Monetary and Credit Policy for 1999-2000, the Reserve Bank has constituted a National Payments Council (Chairman: Shri S. P. Talwar) to focus on the broad policy parameters for designing and developing an integrated payments and settlements structure, with the proposed RTGS system at the core of the system. Country experiences with state-of-the-art settlement practices reveal that although most developed countries operate on a combination of Real Time Gross Settlement (RTGS) System, other Gross Settlement (GS) system, Multilateral Netting (N) or combinations of the above, the RTGS is regarded as the backbone of the payments system in the developed countries. RTGS enables real-time and on-line funds transfer and management for the financial system as a whole. The direct finality of gross settlement prevents settlement failures with their potential systemic consequences. Table 1 provides the RTGS system as prevalent in the developed economies and the ratio of transactions to GDP. As is evident from the Table, a substantial amount of transactions is carried out through the RTGS system. Consequently, the transfer to a RTGS has become the main objective of payment reform in most countries of the world. Gross

settlement systems have the advantage of significantly reducing risks, as transactions are settled on a bilateral basis in real time frame. In fact, Alan Greenspan, Chairman of the Federal Reserve has advocated the movement towards 'real time gross everything'. Such RTGS systems assume all the more importance in a cross-border context, as cross-country risks are difficult to monitor vis-à-vis domestic transactions.

However, several areas of concern still remain to be addressed. On the issue of electronically initiated funds transfer, issues like authentication of payments instructions, responsibility of the customer for secrecy of the security procedure need immediate attention. Similarly, the legal framework for the payments system need careful examination. Mention needs to be made in this context of the Committee on Technology Upgradation in the Banking Sector that has called for the setting up of a Standing Committee of members drawn from legal department of the Reserve Bank, IBA and other banks to examine legal issues on electronic banking and also to scrutinize issues of confidentiality of data in the computerised environment. These issues would need to be examined for improving the overall efficiency of the banking sector.

Table 1: RTGS in Selected Developed Economies

Country	RTGS system Manager	Owner/ Participants	No. of	Processing	Settlement	Membership
1	2	3	4	5	6	7
Belgium	ELLIPS	B+CB	122	RTT	RTGS	RM
France	TCB	CB	158	RTT	RTGS	O
Germany	EIL-ZV	CB	2,947	RTT	RTGS	O
Italy	BI-REL	CB	791	RTT	RTGS	O
Japan	BOJ-NET	CB	426	RTT	RTGS #	RM
Sweden	RIX	CB	130	RTT	RTGS	RM
Switzerland	SIC*	B+CB	221	RTT	RTGS	RM
UK	CHAPS	B	422	RTGS**	N	RM
US	Fedwire	CB	9,967	RTT	RTGS	O

Notes: 1. * Combination of large-value system and retail system.
** Changed to RTGS from April 1996.
# The system has been designed to allow participants to enter funds transfer instructions continuously, in which case the settlement takes place on the central bank's books immediately. It is however, also used to settle on a net basis.

2. B: Bank; CB: Central Bank; N: Multilateral Netting, O: Open membership (any bank can apply). RM: Restricted Membership (subject to criteria).

Source : Statistics on Payments System in the Group of Ten Countries, 1996.

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1.89 The INdian FInancial NETwork (INFINET) based on satellite communication serves as an important communication backbone; it needs to be augmented by addition to the presently licensed transponder capacity as well as by other communication modes. Such a development would strengthen the technological infrastructure and hence help to improve financial market integrations. To strengthen the communication network and equip the Indian banking system with modern technology comparable with international standards, the recommendations of the Vasudevan committee (July 1999) need to be implemented.

1.90 A number of initiatives were taken by the Reserve Bank of India to address the year 2000 problem. Apart from ensuring reporting on Y2K status, contingency plans were also prepared. Besides, the Bank has announced several measures to give confidence to the members of the public that there is Y2K readiness in the financial sector. The important announcement, in this regard are detailed out in Chapter II. The banks have also been advised to set up event management centres at the time of the transition to the millenium change.

Human Resource Development

1.91 To obtain optimal results from the increasing sophistication (computerisation and network system) in the banking industry, and to face the challenges posed by an array of risks in business, it is essential to lay emphasis on high quality of bank personnel. Recruitment procedures for hiring at affordable prices and training and managerial responsibility at different levels of the staff structure, etc. are the important issues which need to be undertaken, so that the existing labour market rigidities and restrictive practices could be addressed.

Universal Banking

1.92 As announced in the policy statement of October 30, 1998, the Discussion Paper on Universal Banking was circulated for comments and wider debate. On the basis of intensive discussions and consultations, some of the desirable directions for evolution of policy are the following:

(a) Universal Banking is a desirable goal and some progress has been made by permitting banks to diversity into investments and long-term financing and the Development Financial Institutions (DFIs) to lend for working capital, etc. The process of enabling the provision of diversified services both by banks and DFIs, either in-house or through the subsidiary route as a conglomerate should be continued subject to appropriate regulation by the Reserve Bank.

(b) Banks have certain special characteristics and as such any discriminatory dilution of RBI's prudential norms for conduct of banking business would be inadvisable. Further, any conglomerate, in which a bank is present, should be subject to a consolidated approach to supervision and regulation.

(c) The regulatory framework of RBI in respect of DFIs would need to be strengthened if they are allowed greater access to short term resources for meeting their financing requirements.

(d) Though the DFIs would continue to have a special role in the Indian financial system, until the debt market demonstrates substantial improvements in terms of liquidity and depth, any DFI, which wishes to do so, should have the option to transform itself into a bank (which it can exercise), provided the prudential norms as applicable to banks are fully satisfied. In respect of any DFI which requires a transition path to fully comply with regulatory requirement of a bank, the DFI concerned may consult RBI for such transition arrangements.

(e) Banks and DFIs will be encouraged by the Reserve Bank to have appropriate coordinating mechanisms among themselves for exchange of information and sharing of risks particularly in respect of large and capital intensive projects.

(f) In due course, and in the light of evolution of the financial system, the Narasimham Committee's recommendation that, ultimately there should be only banks and restructured NBFCs may be considered.

(g) Broader issues, relating to sharper differentiation between regulatory and ownership role by the Reserve Bank and between refinancing and supervisory roles of refinancing institutions as also corporatisation of refinancing institutions, will be processed further.

1.93 Consistent with the above approach, the Reserve Bank has already initiated the following steps:

i) A Standing Co-ordination Committee has been constituted by banks and DFIs at their initiative, on September 14, 1999. The Committee, headed by the CMD of IDBI and assisted by representatives from banks, IBA and a few FIs and the UTI, is expected to facilitate co-ordination and resolution of issues relating to projects, assisted jointly by banks and DFIs.

ii) In order to have a systematic approach to management of liquidity and interest rate risk exposures of FIs, the draft guidelines on asset liability management system had been issued in April 1999. On the basis of feedback and comments received on the draft guidelines, the final guidelines will be issued shortly to FIs.

iii) The repo market has been thrown open to DFIs, on both borrowing and lending sides, to provide them with greater access to money market instruments.

iv) In order to ensure integrated financial supervision over the FIs, an off-site surveillance system has been put in place in July 1999. The objective of the reporting system is to monitor aspects of prudential concern to RBI with particular reference to compliance with the prudential, regulatory and supervisory norms.

Legal Issues

1.94 The on-going process of reforms cannot be successful without a supporting and complementary legal framework which can provide for both strong internal governance in the financial system as well as external discipline by market forces, as suggested by the second Narasimham Committee Report. Steps have to be taken up on a priority basis to bring the required changes in legal provisions to usher in automation in banking operations, electronic funds transfers, recovery laws, etc. An effective legal machinery is also required to facilitate the speedy recovery of dues of banks and financial institutions.

1.95 To make banks more efficient and to improve their productivity, the second Narasimham Committee has suggested cost reduction measures by outsourcing some areas in addition to the existing ones, like building maintenance, cleaning, security, and computer-related areas. This necessitates a serious review of the Contract Labour (regulation and abolition) Act, 1970. To improve the recovery climate of bank loans and to dispose of high value claims of banks and financial institutions expeditiously, Debt Recovery Tribunals (DRTs) were established at a number of places following the passing of the Recovery of Debts due to Banks and Financial Institutions Act, 1993. However, the functioning of the Tribunals has not been satisfactory and, therefore, steps need to be taken to make them more effective and quick in producing the desired results. An Expert Group was set up by the Reserve Bank in 1998 to streamline the functioning of DRT whose report, submitted in August 1998, is under consideration of the Government.

Review of Insurance arrangements in Financial Sector: Amendment to the DICGC Act, 1961

1.96 The Deposit Insurance and Credit Guarantee Corporation (DICGC) set up under the Deposit Insurance & Credit Guarantee corporation Act, 1961 provides insurance protection to small depositors in banks and also guarantee cover to credit facilities extended to certain categories of small borrowers, particularly those belonging to the weaker sections of the society. The Corporation provides insurance cover against loss of all or part of deposits with an insured bank up to Rs.1 lakh per depositor per bank in the same right and capacity for a premium at the rate of 5 paise per Rs.100 per annum. Consequent upon the changes made in the operation of the three Credit Guarantee Schemes operated by the Corporation, a large number of banks have opted out of the Credit Guarantee Schemes. While the viability of the Corporation in relation to credit guarantee has come into focus, there may be need for an alternative arrangement.

1.97 With the gradual deregulation of interest rates on advances to priority sector, there is a need for a re-look into the role and functions of the DICGC. The Second Narasimham Committee has recommended the setting up of a Restructuring Commission to tackle the problem of weak banks.

1.98 The Reserve Bank has set up a Study Group on Reforms in Deposit Insurance in India under the Chairmanship of Shri J. Capoor, Deputy Governor of the Reserve Bank. The terms of reference of the Working Group included (a) to review the role of Deposit Insurance in financial sector and economic developments, including a review of the international experience with regard to Deposit Insurance; (b) to conduct a detailed survey of the nature of Deposit Insurance

in India - instruments, institutions and regulatory legal framework; and (c) to propose changes to the existing system. The Report of the Working Group has been released for discussion.

Financial Frauds

1.99 With the diversification of financial instruments and globalisation of the economy resulting in upsurge of cross border financial transactions, an effective system needs to be put in place to tackle money laundering and financial frauds. Such an institution could be modelled on the lines of Serious Frauds Office of UK and Financial Institutions Crime and Enforcement Network in USA to function as an apex agency comprising representatives from investigating agencies like the Central Bureau of Investigation (CBI), the Government of India and the RBI. Such an agency can go into cases of money laundering and financial frauds perpetrated on the banking system. The agency should provide the required expertise and conduct expeditious investigation into cases of financial frauds brought to the notice of the central bank of the country.

1.100 Suspicious activity covers the known or suspected violation of law in relation to a financial transaction so as to establish criminal nature of conduct. Suspicious activities endanger the economy and the fabric of the financial system. An institutionalised framework needs to be put in place covering banks, financial institutions, NBFCs, etc. for reporting transactions relating to suspicious activities. A similar system exists in the United States. All financial institutions operating in the United States including Insured Banks, Savings Associations, Credit Unions, Bank Holding Companies, Non-bank Subsidiaries, etc. are required to submit Suspicious Activities Report in respect of financial transactions above a cut off limit, in the prescribed format.

1.101 In India, the RBI has evolved a mechanism for dealing with frauds and set up the Advisory Board on Bank Frauds (ABBF) (February 1997) (Chairman: Shri S.S. Tarapore), which has been redesigned as the Central Advisory Board on Bank Frauds (CABBF) on March 1, 1999. The Board takes up bank fraud cases of officers at the level of General Managers and above, referred directly or through Ministry of Finance (MOF). The decisions and directions of the Board on the referred cases would enable the banks to enhance staff accountability and prevent the occurrence of frauds.