The State of the Indian Banking Sector and its Role in India's High Growth

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Summary

1. India's financial system has undergone development as part of the economic reform process that began in 1990. This has resulted in the expansion of both the banking sector and the stock market. However, India's banking sector remains relatively small compared with those of most East Asian economies, and there appears to be scope for further expansion. Individual banks are also small by international standards. Furthermore, the corporate bond market is still immature and has not yet started to develop on a significant scale.

2. Unlike banks in the developed economies of Europe and North America, the Indian banking sector has been affected little by the global financial crisis and has never experienced a major financial crisis. However, banks are still subject to wide-ranging regulation and operate under a system that is materially different from systems in developed economies. With India's economic growth expected to accelerate, there will need to be further changes in the banking sector.

3. India's rapid growth since 2000 has been accompanied by a rise in the savings and investment rates. Procurement of external financial resources by businesses has risen sharply, and bank borrowing has played a significant role. This suggests that external financing can be expected to remain a significant factor in the maintenance of high economic growth, and that the continuing development of the banking sector, including the improvement of financial intermediation capabilities and efficiency with which funds are distributed, will be a priority. There is also likely to be further growth in the demand for finance for infrastructure development. In addition to the expansion of bank credit, there is also a need for steps to maintain soundness, including the improvement of risk management capabilities, and the reinforcement of regulation and supervision.

4. Banking reforms introduced since the 1990s have included the easing regulations that restricted competition, and the introduction of prudential regulations. These changes have resulted in the entry of private sector banks and foreign banks into the market, leading to increased competition. To some extent, the reforms have also brought improvements in the efficiency and soundness of banks and led to the expansion of bank credit. The banking reform process can be seen as a positive factor that is steadily yielding benefits.

5. However, many issues remain. Factors affecting the size of the banking sector and the expansion of credit include the fact that financial savings still account for only a small percentage of household savings. Furthermore, while there has been an upward trend in the percentage of credit provided to individuals, there has been a decline in the share going to the industrial sector. Of particular concern is the stagnation of credit to small and medium enterprises (SMEs). Improvement in these areas will require action to deal with a number of structural problems. First, the government should review the statutory liquidity ratio (SLR), which stipulates the percentage of deposits that must be invested in government bonds. Second, improvements are needed in priority sector lending, which are designed to expand credit to agriculture and SMEs, since banks are unable to secure adequate returns. Third, India has implemented a financial inclusion policy with the aim of expanding the use of formal finance, primarily through the expansion of a network of bank branches in the rural areas. The effectiveness of this policy needs to be improved through diversification.

6. To increase the size of individual banks, the government should consider measures that will encourage bank mergers while maintaining a competitive environment.A longer-term priority will be a review of bank ownership by the government in order to improve the competitiveness of public sector banks.

Introduction

Economic reforms implemented in India since 1990 have included the development of the financial system. This has resulted in the expansion of both the banking sector and the stock market. However, the Indian banking sector is still relatively small compared with the banking sectors of most East Asian economies, and there is scope for expansion. Individual Indian banks are also small by international standards. Furthermore, the Indian corporate bond market is still immature and has not even started to develop on a significant scale.

The Indian economy has shaken off the effects of the global financial crisis and is returning to a robust growth trend. From a financial perspective, a dramatic decline in inflows of foreign capital has prevented businesses from obtaining finance. Other consequences include falls in the exchange rate and share prices. In contrast with the situation in the developed Western economies, however, impact on the soundness of the banking sector has been minimal.

Some observers have concluded that India has made steady progress with financial reforms since the 1990s, with the result that there are now no major problems in the financial system. Indeed, there has never been a major financial crisis. However, a variety of regulations are still in place, and systems are different from those applied in developed economies. India's economic growth is expected to accelerate in the years ahead. What changes will be needed in the financial system?

In this article, we will attempt to answer this question by analyzing the current status of and issues in the financial system, with particular emphasis on the banking sector. In Part I we will build an overall picture of the financial system and consider the need for banking sector development from the short-term and long-term perspectives. In Part II we will examine the financial reform process that began in earnest around 1990s and consider the benefits of the process in the banking sector. In Part III we will consider issues in the banking sector and present a future vision for the sector from the perspective of the expansion of highly efficient financial system.

I. India's Financial System and Economic Development

1. Overview of the Financial System

(1) Overview of the Financial System

India began to implement major financial reforms as part of a general economic reform process launched around 1990. The main targets were the reform of banking sector regulations, and the development of the stock market. Both the banking sector and the stock market have expanded as a result of these changes. However, the banking sector is still small compared with the situation in most East Asian economies (Table 1). In addition, while India's government bond market is comparatively well developed because of the large fiscal deficit, the development of the market for corporate bonds, including bank bonds, has been markedly slower. Since the 1997 currency crisis, East Asian nations have worked to develop their bond markets in the context of regional financial cooperation. India will also need to take steps to build up its market in the future.

Individual banks are also small by international standards. According to the July 2009 edition of *The Banker*, all China's big four banks are includ-

Table 1 Size of Domestic Financial Systems (End of 2008, Percentages of GDP)

(%)

	Domestic credit balance	Bond market balance			Market capitalization of stock market
		Government bonds	Bank bonds	Corporate bonds	
India	71.6	32.1	2.6	0.7	102.1
China	126.2	32.7	14.0	4.3	41.1
Hong Kong	124.6	23.3	9.0	4.6	617.0
Indonesia	36.7	12.3	0.6	0.7	19.3
South Korea	112.6	36.3	33.1	23.5	50.7
Malaysia	115.2	34.6	17.7	37.6	85.4
Philippines	36.3	30.3	0.0	0.9	31.2
Singapore	80.4	39.9	13.7	2.3	145.6
Thailand	105.1	35.6	1.1	15.7	37.7

Source: Compiled using IMF-IFS, *Asian Bonds Online* and other sources

ed in the top 24 rankings in terms of Tier 1 capital, while only two Indian banks — the State Bank of India (SBI) and the ICICI Bank are included in the top 100 at 64th and 81st positions respectively.

According to Oura [2008], money is distributed efficiently through the Indian stock market, but not through the banking sector or bond market. Increased investment is essential to the acceleration of economic growth, and huge amounts of capital will be needed. From this perspective, the development of the banking sector and corporate bond market must be seen as a major priority for economic policy.

(2) Financial Intermediaries

We will look next at financial intermediaries, which can be divided into four main categories (Table 2). The first category consists of commercial banks, which will be referred to below as "banks" except where this would cause confusion. Most banks in this category are scheduled commercial banks(1), which include public sector banks, private sector banks, foreign banks and regional rural banks.

Table 2 Structure of Credit Market (March 31, 2009)

(billions of rupees, %)

Type		Total assets	Percentage	Number of banks
Commercial banks	Public sector banks	37,667	60.0	27
	Private sector banks	10,275	16.4	22
	Foreign banks	4,471	7.1	31
	Regional rural banks	1,458	2.3	86
Co-operative institutions	Urban co-operative banks	1,964	3.1	1,721
	Rural co-operative banks	3,828	6.1	96,061
Financial institutions		2,174	3.5	4
Non-banking financial companies		957	1.5	12,740
Total		62,794	100.0	–

Notes: The percentage of rural co-operative banks is based on data for March 31, 2008.
Source: Reserve Bank of India [2009b]

In 1955, the Imperial Bank of India was nationalized as the State Bank of India (SBI). The SBI subsequently formed the SBI Group, which consists of eight banks. Another 14 banks were nationalized in 1969, followed by six more in 1980. These banks, together with the SBI Group, are classed as public sector banks. New private sector banks and foreign banks have moved into the market as a result of the financial reforms introduced since 1990. However, the public sector banks account for around 70% of the market in terms of total assets, deposits, numbers of branches and other indicators. Regional rural banks were established in the 1970s to provide credit to the agricultural sector. However, the number of these banks has fallen sharply in recent years as a result of government-initiated restructuring.

Co-operative institutions make up the second category of banks. These are divided into urban co-operative banks and rural co-operative banks. The number of urban co-operative banks, which provide credit in cities and surrounding areas, increased dramatically in the early 1990s but has declined somewhat in recent years, in part because of financial weakness. The rural co-operative banks provide short-term and long-term agricultural credit and housing loans in the rural areas.

The third category of banks consists of financial institutions. These are policy financial institutions that use government capital and bond issues to provide medium- and long-term capital to a wide range of sectors. Many institutions of this type have been created, including the Industrial Development Bank of India (IDBI) and the National Bank for Agriculture and Development (NABARD). However, their role was reassessed as part of the economic reform process, and by the mid-1990s subsidies to this type of financial institution had been abolished. The scale of policy financial institutions has shrunk dramatically in recent years.

Non-banking financial companies make up the fourth category. A variety of institutions are included in this group. The three main types are asset finance companies, such as leasing companies, loan companies, including those involved in consumer finance and housing finance, and in-

vestment companies, including investment trust companies and insurance companies. Some institutions in this category are also able to accept deposits. As a result of the changes to the Reserve Bank of India Act since the second half of the 1990s, non-banking financial companies are now required to register with the Reserve Bank. The number of institutions has fallen dramatically as a result.

2. Impact of Global Financial Crisis Minimal

After slowing under the impact of the global financial crisis, the Indian economy is now starting to recover. The impact of the crisis on the banking sector was negligible. The apparent reasons for this are as follows(2).

First, Indian banks held almost no products linked to the U.S. subprime mortgage market. According to Mohan [2008b], the results of a survey conducted by the Reserve Bank in September 2007 show that Indian banks had no direct exposure to the U.S. subprime mortgage market. The exposure was limited to a very small minority of banks that had invested in CDOs with related underlying assets. Fourteen banks had some positions with Lehman Brothers at the time of the collapse. However, most of these were with subsidiaries that were not included in the bankruptcy. Few banks held positions with Lehman Brothers itself, and those that did had provided appropriate reserves.

Second, foreign banks make up a small part of the Indian banking sector. As of March 31, 2009, the assets of foreign banks amounted to approximately 4.5 trillion rupees, which is equivalent to only 8.3% of the total holdings of all banks (53.9 trillion rupees). The recent global financial crisis eroded the liquidity and capital positions of Western banks, causing them to pull their funds out of developing economies, including India. There was a close correlation between the extent of the impact of the crisis and the weight of foreign banks.

One of the most important reasons why the banking sector was spared from the effects of the crisis was the assumption that there was a implicit guarantee for the public sector banks, which make up a large part of the sector. In India, government ownership of banks is predominantly associated with negative characteristics, including conservative attitudes to innovation, vulnerability to political pressures, and resistance to bank mergers. However, the government ownership had a positive effect in terms of dealing with the crisis. This was reflected in the so-called "flight to quality," which resulted in a tendency for deposits to be concentrated in public sector banks after the onset of the crisis.

Third, the soundness of the banking sector has been maintained. The results of stress tests conducted by the Committee on Financial Sector Assessment (CFSA), which was established in the Reserve Bank of India, show that the banking sector is resilient to potential changes, including changes in the quality of credit, interest rates and liquidity. A key reason for this is the fact that the Reserve Bank tightened its prudential regulations(3). Since 2004, bank credit has been growing at a steady rate of around 30% annually. Preventive measures implemented during this period have included increases in the risk weighting of some assets, especially real estate loans, housing loans and consumer loans, and the tightening of provisioning requirements. While these provisioning requirements, known as "dynamic provisioning," were partially eased after the onset of the crisis, they can be seen as a kind of counter-cyclical regulation. Given that counter-cyclical regulations are now the focus of growing international debate(4), the Reserve Bank has claimed that India's regulation was well ahead of international discussion.

The safety of bank assets has been further enhanced by the high percentage of assets invested in government bonds. This reflects the existence of the statutory liquidity ratio (SLR), which will be examined later in this article. Government bond interest rates, especially short-term rates, fell sharply after the Lehman shock. Holdings of government bonds helped to lift bank earnings, in part because of increased trading in this environment.

Fourth, restrictions on capital transactions have been maintained. India has been especially cau-

tious about debt-type transactions, such as external commercial borrowing and bond investment. To some extent, this also helped to curb the flow-on effects of the global financial crisis. The limit for overseas borrowing by banks is the higher of 25% of Tier 1 capital or $10 million. (This restriction does not apply to borrowing that relates to export finance or subordinated debt.) Short-term external debt is equivalent to less than 1% of bank assets.

For these reasons, the Indian banking sector has experienced almost no short-term problems as a result of the global financial crisis. However, many of the factors that have helped to minimize the impact may run counter to the trend toward deregulation, and their desirability from a long-term perspective will need to be debated thoroughly. The continuing and appropriate expansion of credit will also be essential if India is to accelerate its economic growth while maintaining the soundness of its banking sector.

3. Long-Term Economic Growth and the Importance of Financial Intermediation

(1) Savings and Investment Rates

We will next analyze trends in India's savings and investment rates from the viewpoint of their implications for long-term economic growth and the financial system. As shown in Table 3, the savings-investment gap was small historically, and most investment was funded from domestic savings. However, the gap began to expand in the 1980s. Economic growth in that decade was heavily dependent on public sector investment, which was funded by domestic and overseas borrowing. This caused both the fiscal deficit and the current account deficit to grow, creating an expanding macroeconomic imbalance that led to the crisis of 1991.

Subsequent reductions in public investment failed to bring any improvement in the fiscal deficit, mainly because of chronic growth in revenue expenditure. This situation prevented the savings and investment rates from rising in the 1990s and was one of the reasons for the fall in India's economic growth rate in the second half of that decade.

Signs of an improvement in the fiscal deficit did not begin to emerge until 2003. Efforts to reduce the deficit intensified under the Fiscal Responsibility and Budget Management Act, which became law in 2004. In recent years, rapid economic growth has brought a dramatic increase in tax revenues. This has helped to reduce the deficit as a percentage of GDP. The growth of public businesses savings has also brought growth in public sector savings.

Table 3 Savings and Investment Rates (GDP Ratios)

(%)

	1950s	60s	70s	80s	FY1990	FY91-96	FY97-2002	FY03-06	FY07
Savings									
Household	6.6	7.6	11.4	13.5	18.4	16.8	20.8	23.8	24.3
Private corporate	1.0	1.5	1.5	1.7	2.7	3.7	4.0	6.6	8.8
Public	n.a.	n.a.	4.2	3.7	1.8	2.2	▲ 0.7	2.3	4.5
Total	n.a.	n.a.	17.1	18.9	22.9	22.7	24.1	32.7	37.6
Investment									
Household	4.7	4.9	6.9	6.8	9.7	6.8	10.5	12.7	12.6
Private corporate	1.9	2.9	2.6	4.5	4.5	7.7	6.6	11.2	15.9
Public	n.a.	n.a.	8.6	10.6	10.0	8.7	6.9	7.1	9.1
Total	n.a.	n.a.	18.1	21.9	24.2	23.2	24.0	31.0	37.6
Savings−Investment									
Household	1.9	2.7	4.5	6.7	8.7	10.0	10.3	11.1	11.7
Private corporate	▲ 0.9	▲ 1.5	▲ 1.0	▲ 2.8	▲ 1.8	▲ 4.0	▲ 2.6	▲ 4.7	▲ 7.1
Public	▲ 2.6	▲ 4.1	▲ 4.4	▲ 6.9	▲ 8.2	▲ 6.5	▲ 7.5	▲ 4.9	▲ 4.6
Total	▲ 1.6	▲ 2.9	▲ 0.9	▲ 3.0	▲ 1.3	▲ 0.5	0.2	1.5	0.0

Source: Mohan [2008a]

While public sector investment has shrunk since the 1990s, private sector investment has expanded rapidly. This has been reflected in a conspicuous decline in the public sector's share of total investment, and the economic growth has become driven by private sector investment. The private sector has clearly superseded the public sector as the growth engine.

In the private corporate sector, there has been an improvement in the environment in which companies operate. Reasons for this improvement include the economic reforms which have encouraged businesses to be more efficient, and the fact that cuts in corporate tax rates and tariffs, and the reduction of debt servicing costs through restructuring led to the decrease of management costs. Business earnings have risen rapidly in this environment, and companies have also been able to retain higher percentages of their earnings. This has resulted in a dramatic increase in the business sector investment rate.

Rising income levels have brought a steady rise in the household sector's savings rate. A rapid increase in lending to individuals, including housing loans, has meanwhile driven growth in household sector investment in housing and real estate. There has also been a rise in investment through self-employment enterprises (informal sector companies), which makes up a significant percentage of investment by the household sector.

With savings rates higher not only in the household sector but also in the private corporate and public sectors, there has been a rapid rise in savings and investment rates across the entire economy. This situation has resulted in an investment boom and high economic growth. In addition, improvements in the investment environment and business competitiveness as a result of the economic reforms have also helped to expand investment. Also significant is the expansion of capital inflows into Asian economies, including India, in recent years, because of global trends toward monetary easing and excess liquidity.

This history provides further evidence that the basic goal should be to fund domestic investment from domestic savings. If domestic investment exceeds domestic savings, there will be a current account deficit, and a large deficit is unsustainable. Ideally, every sector should have sufficient savings. An excess of investment over savings in the government sector is especially serious, since it will result in a fiscal deficit.

A savings shortfall is also likely to hinder investment growth. Economic growth cannot accelerate without upward trends in both savings and investment rates. As is apparent from Table 3, India's household sector has consistently saved more than it has invested, but investment has exceeded savings in the private corporate and public sectors. The financial system plays a vital role by intermediating savings into investment. The India financial system, especially the banking sector has expanded dramatically over the past few years, and the efficiency with which funds are distributed also appears to have improved. However, the amount of bank credit is relatively low as a percentage of GDP, which could mean that the banking sector is not sufficiently involved in the intermediation of savings into investment. Household sector financial savings need to be increased. There is also room for improvement in the efficiency of financial intermediation and the distribution of funds. Improvement in the financial system, especially the banking sector, can be expected to lift the economic growth rate.

(2) Financing Methods Used by the Business Sector

①Long-Term Trends

We will look next at the methods used by the business sector to procure finance. Table 4 is based on data from the *Finances of Public Limited Companies*, which are published regularly by the Reserve Bank of India in the *RBI Bulletin*. It is difficult to interpret trends because of a gradual increase in the number of companies sampled. However, we can identify a number of significant points. First, there was only limited growth in the amount of finance procured in the 1990s. A comparison between fiscal 1991 and fiscal 2001 shows that reliance on internal funds rose in step with improvement in business earnings as a result of restructuring and other factors. The resulting decline in the role of external finance was accompa-

nied by a rise in the percentage of funds procured through bank loans and share issues, and a decline in the percentage procured through bond issues and borrowing from sources other than banks.

Second, the investment boom that began in fiscal 2003 has brought a rapid increase in the amount of finance procured. Reliance on internal funds has fallen, and the importance of external finance has increased. A breakdown of external finance reveals that both bank borrowing and share issues have increased dramatically in absolute terms, but that bank borrowing has remained stable while share issues have increased in percentage terms. Borrowing from non-banking financial companies and overseas borrowing seem to have also risen. While there has been a moderate increase in bond issues, the percentage contribution remains extremely low.

These patterns suggest that external finance has played a major role in India's economic growth. To accelerate its economic growth in the future, India will need to make further improvements in its banking sector and stock market. The expansion of credit will also increase the importance of monitoring and regulation of credit, including borrowing from non-banking financial companies

Table 4 Financing Methods of Non-Financial Private Sector Listed Companies

(%, billions of rupees)

	FY1991	FY95	FY99	FY2001	FY03	FY05	FY07
Internal sources	28.1	36.6	40.3	65.3	53.5	43.6	36.9
Paid-up capital	1.5	1.3	0.5	0.4	0.4	1.4	0.4
Reserves/surpluses	9.3	20.8	9.1	▲18.8	20.0	26.0	23.8
Provisions	17.2	14.5	30.7	83.8	33.1	16.2	12.8
External sources	71.9	63.4	59.7	34.7	46.5	56.4	63.1
Borrowings	41.2	31.4	20.1	8.8	17.0	24.4	28.3
Subtotal: Bank loans	8.8	17.7	8.4	21.5	21.4	23.8	20.5
Subtotal: Bond issues	12.2	3.5	3.4	▲1.5	▲3.5	▲2.7	0.5
Share issues	6.8	13.9	21.9	10.5	8.6	17.0	17.1
Current liabilities	23.8	17.9	17.3	14.3	20.3	14.7	17.7
Total	252	543	397	293	632	1,605	4,211
Sample size	1,802	1,930	1,927	2,031	2,214	2,730	3,114

Notes: There may be some discrepancy between individual items and totals.
Source: Inoue [2009], Reserve Bank of India, *RBI Bulletin* (various issues)

Table 5 Flow of Financial Resources to the Commercial Sector

(billions of rupees)

	Whole of FY2007	Whole of FY2008	FY2008 (up to Jan.)	FY2009 (up to Jan.)
Non-food bank credit	4,448	4,211	2,839	2,310
(Domestic, other)	2,552	3,136	1,669	1,948
Share issues by non-financial enterprises	515	142	136	198
Bond issues by non-financial enterprises	682	779	442	816
CP issues	107	56	44	477
Loans from housing finance companies	418	259	291	99
Non-bank loans, etc.	830	1,901	758	358
(Foreign sources)	3,063	1,874	1,439	1,636
External commercial borrowings	911	369	320	239
ADR/GDR issues by non-financial enterprises	118	48	47	145
Short-term external borrowings	639	▲130	68	44
Direct investment	1,394	1,586	1,005	1,208
Total	10,063	9,221	5,947	5,894

Source: Reserve Bank of India

and overseas borrowing. Another key priority will be the development of the corporate bond market.

②**Short-Term Trends**

In order to analyze more recent trends we need to use data from *Flow of Financial Resources to the Commercial Sector*, which is included in the Reserve Bank of India's *Macroeconomic and Monetary Developments* (Table 5). The global financial crisis caused overseas credit markets to shrink, and that access to funds through domestic and foreign stock markets also became more difficult. Consequences include the shrinkage of domestic liquidity and a slowdown in bank credit. These changes have had a major impact on the ability of businesses to procure financial resources.

In fiscal 2008, procurement of financial resources by enterprises (excluding financial institutions) shrank by 8.4% year-on-year to 9.2 trillion rupees. This was largely the result of a 38.8% decline in finance from overseas, including external commercial borrowing, ADR/GDR issues, and short-term loans. However, there were also major declines in domestic share and CP issues, while bank credit contracted by 5.3%. Bank credit remained in positive figures year-on-year until mid-January last year but shifted to a negative trend thereafter.

In fiscal 2009, the total amount of finance procured up to January 2010 was 0.9% below the total for the same period in fiscal 2008 at 5.9 trillion rupees. There has been a recovery in domestic share and CP issues, and inflows of overseas financial resources other than loans are also expanding. However, bank credit continues to stagnate and has fallen by 18.6%.

4. Infrastructure Development and Financing

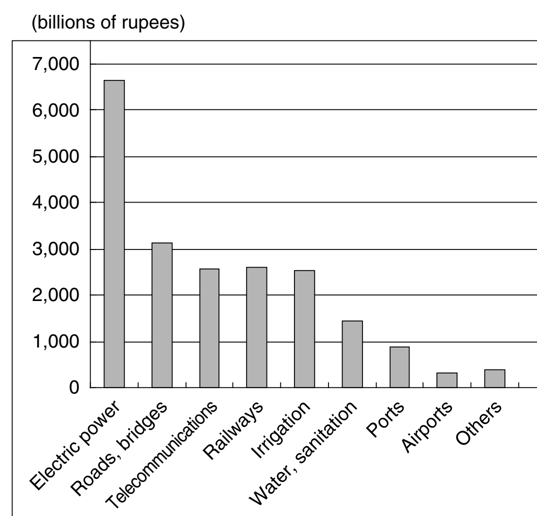
(1) Anticipated Scale of Infrastructure Development and Sources of Finance

One of the most important forms of investment from the viewpoint of accelerating economic growth is infrastructure development. Infrastructure development maintains the momentum of economic growth. It also helps to spread the benefits of growth more widely across the population and reduce regional income disparity. However, infrastructure development presents a number of challenges from a financing perspective because it involves major projects and long construction periods. Other problems include the fact that income flows continue for many years after completion.

In its 11th Five Year Plan (fiscal 2007-2011), the Planning Commission stated that India would need infrastructure investment of 20.3 trillion rupees (about$500 billion) to maintain an average annual economic growth rate of 9% (Fig. 1). This is equivalent to 2.3 times the actual level of investment under the 10th Five Year Plan (8.8 trillion rupees) and will not be an easy target to reach[(5)]. Other recommendations by the Planning Commission include (1) that the contribution from private sector investment should rise from 20% of total infrastructure investment in fiscal 2006 to 30% in fiscal 2011, (2) that the contribution from the central government budget should be reduced from 43% in fiscal 2006 to 31% in fiscal 2011, and (3) that government spending should focus primarily on rural infrastructure and relatively impoverished regions in northeastern India.

In the past infrastructure development has been funded mainly by government spending. As these

Fig. 1 Infrastructure Investment under the 11th Five Year Plan



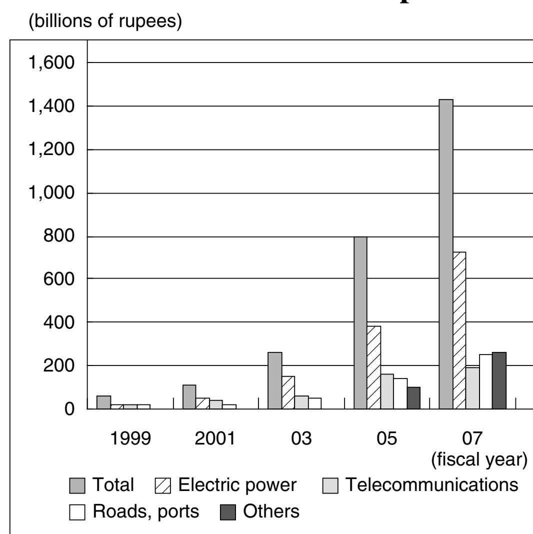
Source: Planning Commission

recommendations indicate, however, India is now eager to expand the involvement of private sector economic entities in infrastructure development, and to increase inflows of private sector financial resources. The continuing improvement of the financial system will be extremely important to the realization of these goals.

Infrastructure development projects were not opened up to private sector participation until the early 1990s, and banks are still the primary source of private sector financial resources(6) (Fig. 2). However, there is a limit to the capacity of banks to continue supplying funds for infrastructure development. This is because infrastructure development is a long-term process and can result in term mismatching for banks, which rely on deposits for most of their liabilities, and because it would be unwise for banks to concentrate too much of their credit in one particular sector. To increase the supply of funds, banks will need to strengthen their capital. Another approach would be to increase the size of banks, such as by encouraging mergers.

Other providers of financial resources include government institutions, such as the India Infrastructure Finance Company Limited (IIFCL), as well as insurance companies and other institutional investors. However, the capacity of government institutions to supply financial resources is limited. On the other hand, as financial institutions specializing in the accumulation of long-term funds, institutional investors are qualified to invest in infrastructure development but have not yet fully developed that role. Most invest conservatively, primarily in government bonds. They will need to build the required investment systems, including the capacity to assess infrastructure projects. They will also need to relax their investment restrictions. These tasks are likely to take time.

Fig. 2 Balance of Bank Credit Used in Infrastructure Development



Notes: Balances are as at the end of each fiscal year.
"Others" consists mainly of urban infrastructure.
Source: Reserve Bank of India [2008b]

One of the urgent priorities is the development of the corporate bond market. An expanded corporate bond market would be able to link long-term funds with infrastructure investment, while also distributing the risk of infrastructure investment widely across the entire financial system. It would also be necessary to develop legal mechanisms and other systems to facilitate the securitization relating to infrastructure projects. Another important task will be the development of markets for derivatives, such as credit default swaps (CDS) and interest futures, so that investors can hedge the risks of infrastructure investment.

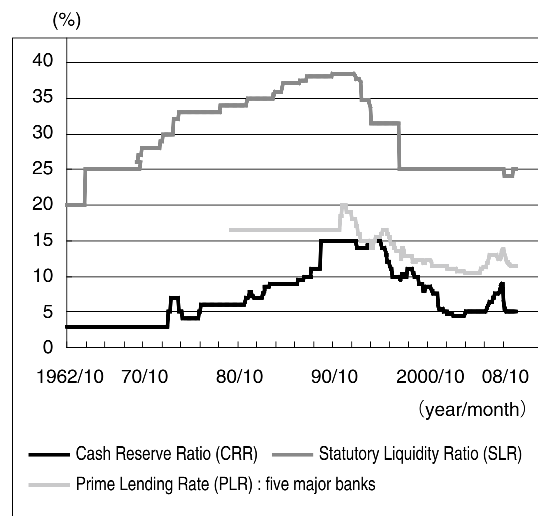
India will also need to strengthen its stock market, since equity finance plays an important role in infrastructure development. In the 11th Five Year Plan, it is assumed that equity finance will account for around 30% of the private sector funds required for infrastructure investment.

(2) Public-Private Partnership Initiatives

Private sector investment and public-private partnerships (PPPs) are expected to provide about one-third of the 20 trillion rupees needed for infrastructure investment. Private sector participation can supplement the limited financial resources of the public sector and provide access to the specialized knowledge and efficiency of private sector organizations. However, there are many obstacles, including policies and regulations that hinder participation, a lack of suitable long-term financing tools, shortages of resources and trained personnel in the public sector, and a lack of knowledge about PPPs.

The government is implementing a wide range of measures to overcome these problems, including the liberalization of private sector and foreign investment in specific sectors, the establishment of regulatory and supervisory agencies specializing in particular fields, the simplification of project approval procedures, the standardization of tender methods and contract documents, and human resource development in the public sector. All of these factors will need to be taken into account in measures relating to the development of the financial system.

Fig. 3 Cash Reserve Ratio, Statutory Liquidity Ratio, Prime Lending Rate



Source: Reserve Bank of India [2009a]

II. Progress of Financial Reform and Banking Sector Development

1. Overview of Financial Reform Process

After operating in a relatively free environment up until the 1960s, the Indian banking sector became subject to increasing government intervention during the 70s and 80s. The main reason for this intervention was to secure fiscal funds for the government, but the supply of low-interest credit to the poor was also an important goal. Bank nationalization raised the public sector banks' share of deposits to over 90%. There was also an increase in the percentage of branches located in rural areas, which increased from 22% in 1969 to 49% in 1981.

India's heavily regulated financial system was in a state of financial repression. First, the money supply was basically determined by flows of fiscal funds between the government and the Reserve Bank. Second, there was a gradual increase in the cash reserve ratio (CRR) and the statutory liquidity ratio (SLR) (Fig. 3). Third, government bond interest rates were kept low compared with market interest rates. Bank deposit interest rates were also restricted, with real interest rates stagnating at a level close to zero. Fourth, to make these restrictions possible, the government tightly restricted capital transactions to avoid the risk of currency depreciation caused by the gap between domestic and overseas interest rates. In addition, credit was allocated through priority sector lending. Other regulations included restrictions in loan and deposit interest rates, and limits on the number of branches that banks could open.

The financial reform process began in earnest after the 1991 balance of payments crisis. Overall, the pace of reform was gradual, in part because of problems with the soundness of the banking sector. The aim was to improve the efficiency and soundness of banks by stimulating competition, both by encouraging private sector banks and foreign banks to enter the market, and also be increasing management freedom(7). Among the specific targets identified were support for economic growth, the promotion of financial inclusion, and the improvement of customer services. The scope of the reforms was progressively expanded to encompass not only banks but many other types of financial institutions. As a result of these changes, it became possible to supply credit more efficiently to a wide range of sectors.

In relation to monetary policy, first, the government progressively restricted the monetization of public finances and abolished it altogether in April 1997. Second, there was a shift from direct monetary policy tools, such as changes to the cash reserve ratio (CRR) and the statutory liquidity ra-

Table 6 General Structure of Bank Regulation

1. Restrictions on competition	① Interest rate controls ②Restrictions on business areas ③Restrictions on bank mergers ④Market entry restrictions ⑤Restrictions on non-price competition ⑥Restrictions on international transactions
2. Prudential regulations	① Balance sheet ratio regulations: Capital adequacy rules, etc. ②Asset valuation rules: E.g., standards for recognition and disposal of non-performing assets and provision of reserves ③Transaction regulations: E.g., regulations concerning loan concentration and real estate lending
3. Safety nets	①Deposit insurance schemes ②Rescues by the central bank
4. Development of financial infrastructure	① Information disclosure ②Supervisory regimes ③Others: E.g., laws, accounting systems, tax systems, market practices, settlement systems

Source: Various

tio (SLR), to indirect methods, such as open market operations(8). In 1993, the government began to reduce the CRR and the SLR. The Liquidity Adjustment Facility and the Market Stabilization Scheme were introduced as mechanisms for the adjustment of liquidity. Third, government bond interest rates were liberalized, and steps were taken to develop the market. In April 2006, the Reserve Bank was prohibited from participating in the primary market.

Bank reforms were implemented through a range of legislative measures, including the easing of regulations that limited competition, and the establishment of soundness requirements and supervisory systems (Table 6).

2. Reduction of CRR and SLR, Liberalization of Loan and Deposit Interest Rates

(1) Reduction of CRR and SLR

Bank earnings were seriously affected by the high levels of the CRR and the SLR. Furthermore, interest rate regulations prevented banks from matching loan rates to credit status, and from distributing financial resources efficiently. From 15% in 1994, the CRR was reduced to 5% by 2004. The SLR was reduced from 38.5% in 1990 to its present level of 25% in 1997. These changes were possible thanks to a dramatic reduction in the fiscal deficit. There was also progress toward the liberalization of government bond interest rates.

Despite the fact that more money became available for lending following the reduction of the CRR and the SLR, the average annual increase in bank credit fell from 19.5% in fiscal 1992-95 to 15.1% in fiscal 1996-2001. The causes of this trend can be found both in the banking sector and in the business sector. The weakness of banks became apparent with the tightening of various prudential regulations, and by the end of March 1997 the non-performing loan ratio had reached 15.7%. This factor, together with the level of the capital adequacy ratio, which stood at just 8.7% at the end of March 1996, meant that banks were inevitably hesitant to expand their credit. In the business sector, demand for credit shrank in the second half of the 1990s. Businesses faced escalating competition because of factors that included the removal of quantitative restrictions in products markets and the reduction of import tariffs. The focus of management strategies shifted from capacity expansion to restructuring, and businesses reduced their borrowing and relied instead on retained earnings. The debt equity ratio fell from 85.5% in fiscal 1990-94 to 65.2% in fiscal 1995-99.

Another factor that impeded the expansion of credit was the persistently high level of real interest rates. The nominal interest rate tended to remain high, while the inflation rate was falling. As

a result, the real loan interest rate climbed from 6.5% in fiscal 1990-95 to 12.5% in fiscal 1996-2001.

In this environment, banks weighed risk-adjusted rates of return and opted for investment in government bonds. The level of investment in government bonds remained substantially higher than was required under the SLR system.

Medium-term plans called for the reduction of the CRR to 3%. However, it is still used as a monetary policy tool and has been moved up rather than down since September 2004. A plan to reduce the SLR to 25% or lower has also remained unfulfilled. During the global financial crisis, the CRR and the SLR were both reduced to stimulate the supply of liquidity. The role of these mechanisms as monetary policy tools is unlikely to change in the foreseeable future.

(2) Liberalization of Loan and Deposit Interest Rates

In the 1990s, the government liberalized loan and deposit interest rates, which until then had been subject to complex regulations. Following the liberalization of deposit rates, which began in October 1995, banks were able to set deposit rates according to their own management decisions. However, interest rates on foreign currency deposits and non-residents' deposits were still subject to restrictions from the standpoint of capital transaction regulations. Loan interest rates were also liberalized, but export finance and small loans continued to be regulated. After the implementation of liberalization in October 1994, banks were able to set their own prime lending rates (PLRs)[(9)].

Liberalization of interest rates was seen as a way to improve the effectiveness of monetary policy and ensure the efficient distribution of financial resources. Banks began to set loan interest rates according to the liquidity situation and their perceptions of credit risk. Interest rate liberalization also helped to stimulate competition among banks. In October 1991, loan interest rates were around 20%. By fiscal 1997, the level had fallen to around 14% as a result of interest rates liberalization and liquidity growth resulting from capital inflows.

3. Easing of Banking Market Entry Restrictions

(1) New Banks and their Impact

Private sector banks were barred from participation in the banking market after the nationalization of banks in 1969. With the market closed to new participants, the threat of competition was removed. Competition was further hindered by interest rate regulations and restrictions on the opening of new branches.

Major changes were implemented after 1990. First, the market was opened up to private sector banks and foreign banks. Second, regulations governing the establishment of branches were amended. The regulations, which previously prevented banks from closing rural branches, were eased to allow them to rationalize their branch networks. ATM installation also became easier. Third, regulations relating to lending were eased. For example, banks were allowed to participate in project financing, which had previously been limited to development financial institutions. Fourth, public sector banks were allowed to procure financial resources from the stock market up to 49% of their paid-up capital.

These reforms triggered a rapid influx of private sector banks and foreign banks into the market during the 1990s (Table 7). As of March 31, 1998, however, new private sector banks and foreign banks accounted for just 3.2% and 8.2% respectively of total bank assets. Competition does not seem to have received a major boost in the 1990s. At a time when interest levels were falling, the net interest margin (interest received − interest paid) earned by banks rose from 2.51% of total assets in fiscal 1992 to 2.95% in fiscal 1997[(10)].

This situation began to change after 2000. With the abolition of government and Reserve Bank subsidies to development financial institutions, those institutions became close to financially unsustainable situation. The government adopted a policy of converting development financial institutions into banks, and ICICI became a bank in

Table 7 Number of Banks and Branches, Total Assets

①Number of banks

	1991	96	2001	06	07	08	09
Scheduled commercial banks	272	289	296	218	178	170	166
SBI Group	8	8	8	8	8	8	7
State-owned banks	20	19	19	20	20	20	20
Private sector banks	24	35	31	28	25	23	22
Foreign banks	24	31	42	29	29	28	31
Regional rural banks	196	196	196	133	96	91	86
Non-scheduled commercial banks	4	2	5	4	4	4	4

Notes: As of March 31 in each year.
Source: CEIC data base

②Number of branches

	1991	96	2001	06	07	08	09
Scheduled commercial banks	62,704	64,918	67,923	72,005	74,563	78,620	82,362
SBI Group	12,392	13,119	13,650	14,294	14,651	15,814	16,731
State-owned banks	31,423	32,416	33,993	35,848	37,413	39,204	40,766
Private sector banks	4,010	4,506	5,381	6,828	7,415	8,294	9,186
Foreign banks	151	172	205	259	272	279	295
Regional rural banks	14,728	14,705	14,694	14,776	14,812	15,029	15,384
Non-scheduled commercial banks	36	8	14	41	46	46	46

Notes: As of March 31 in each year.
Source: Reserve Bank of India [2009c]

③Total assets (billions of rupees)

	1991	96	2001	06	07	08	09
Scheduled commercial banks	3,358	6,181	13,446	28,755	35,657	44,514	53,872
SBI Group	1,105	1,868	4,029	6,918	8,058	10,110	12,802
State-owned banks	1,851	3,191	6,269	13,230	16,344	20,110	24,865
Private sector banks	119	456	1,634	5,716	7,454	9,401	10,275
Foreign banks	207	477	1,018	1,994	2,744	3,641	4,471
Regional rural banks	75	190	496	897	1,058	1,252	1,458
Non-scheduled commercial banks	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Notes: As of March 31 in each year.
Source: CEIC data base

2001, followed by IDBI in 2004. During this period, one public sector bank and four private sector banks were created, and 16 foreign banks entered the market. In March 1991, foreign banks had 151 branches. This had increased to 205 by March 2001, and to 295 by March 2009. Escalating competition meanwhile reduced the total number of banks (excluding regional rural banks) from 100 in March 2001 to 80 in March 2009.

This intensification of competition was also reflected in loan interest rates. In the past, there was little downward movement in prime lending rates, and there was also a tendency for lending rates to vary widely according to the borrower. In fiscal 2003, benchmark prime lending rates (BPLRs) were introduced as a way of improving transparency(11). However, escalating competition led to an increase in lending below the BPLRs, causing the gap between the highest and lowest lending rates to widen. Lending at sub-BPLR interest rates expanded from 43% of total lending in fiscal 2003 to 79% at the end of March 2007. This trend exerted downward pressure on financial intermediation costs.

In 2004, the ceiling for direct investment in private sector banks was raised from 49% to 74%, with the result that non-residents became majority shareholders in a number of banks. In February 2005, the Reserve Bank published a road map for the liberalization of market entry for foreign banks. In addition, detailed rules were formulated to encourage bank mergers. In September 2005, the rules governing the establishment of branches were further eased, and instead of applying for ap-

proval for individual branches, banks became able to obtain approval on a yearly basis.

(2) Problems Affecting Market Entry by Foreign Banks

Foreign banks were active in India even in pre-independence times. After independence, however, priority was given to the reinforcement of domestic banks. In the 1990s, India began to encourage participation by foreign banks. Negotiations on India's WTO membership played a significant role, and as the negotiations advanced, India had to give approval for foreign banks to open 12 branches a year.

Under the February 2005 road map, the period to March 2009 was identified as Phase 1. During this phase, foreign banks were allowed to acquire shareholdings of up to 74% in domestic private sector banks, or to move into the Indian market by establishing branches or wholly owned subsidiaries. They also became able to convert existing branches into wholly owned subsidiaries. Investment in private sector banks was initially limited to banks that required restructuring. In Phase 2, which was to begin in April 2009, the road map calls for the consideration of measures based on the progress made so far. Those measures include the expansion of the scope of services provided by wholly owned subsidiaries to match domestic banks as closely as possible, approval for the listing of wholly owned subsidiaries in India (with residents to own at least 26%), and approval for shareholdings of up to 74% in all private sector banks. However, these changes were postponed indefinitely amid the turmoil caused by the global financial crisis.

For a number of reasons, the Reserve Bank is not especially enthusiastic about the entry of foreign banks into the market at present. First, while there would be benefits, including the introduction of financial technology, the costs would be even greater. For example, an expanded foreign presence could stimulate bank mergers and increase the concentration of banking, thereby reducing the availability of finance to small and medium enterprises, which should be given priority. Second, while foreign banks are basically on a equal footing with domestic banks in relation to prudential regulations and other requirements, Indian banks do not receive equal treatment in other countries. There is also concern about the creditworthiness of many foreign banks.

Given the situation that exists in the wake of the global financial crisis, this stance is unlikely to change overnight. Japanese banks, securities companies, insurance companies and other institutions are also expanding their presence in India via all available routes, including the development of stronger links with local banks, and the establishment of local subsidiaries to provide investment banking services. This trend reflects a growing Japanese business presence in India.

4. Changes in Bank Credit and Earning Performance

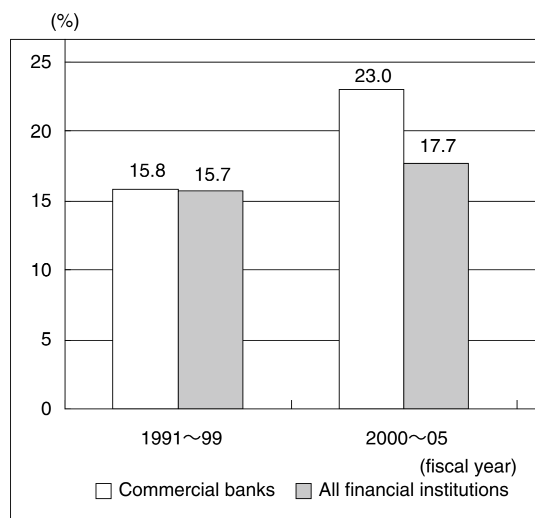
(1) Trends in Bank Credit

The average yearly increase in credit provided by all financial institutions rose from 15.7% in the 1990s to 17.7% in fiscal 2000-05. The balance of credit stagnated in the 1990s, moving from 34.2% of GDP at the end of March 1991 to 37.1% at the end of March 2000. However, the ratio rose rapidly thereafter, reaching 54.1% of GDP at the end of March 2006.

In the 1990s, bank credit grew at around the same rate as credit provided by other financial institutions. Bank credit grew faster from 2000 onwards, however, and its share of total credit rose from 59.7% at the end of March 1991 to 78.2% at the end of March 2006 (Fig. 4). Reasons for this change include a shift away from non-banking financial companies as a source of finance for individuals, increased rural lending by banks, and the conversion of the main two development financial institutions into banks.

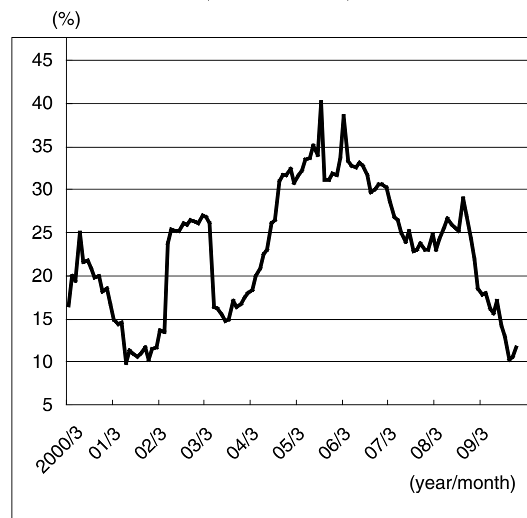
Bank credit continued to stagnate after 2000 for a number of reasons, including the increased use of retained earnings and overseas borrowing in the business sector. However, the annual increase in fiscal 2004-06 was 30%. The key factors behind this trend are a higher economic growth rate, ris-

Fig. 4 Average Annual Growth Rate of Credit



Source: Reserve Bank of India [2007]

Fig. 5 Year-on-Year Increase in Bank Credit (Non-Food)



Source: CEIC data base

ing household incomes, and lower real interest rates, but escalating competition and the reduction of non-performing assets also contributed to the growth of lending. Non-performing loans were reduced from 31.7% of the increase in lending in fiscal 2001 to 5.3% in fiscal 2005, thanks to progress on the disposal of non-performing assets, and improvements in risk management technology.

Deregulation also expanded the scope for new product development and the diversification of loan products. The scope of business was further expanded by the easing of restrictions on lending to individuals and project finance. The expansion was especially dramatic in the individual banking category, and many new products were created in the areas including housing loans, personal loans and education loans. This diversification of services also led to growth in the amount of lending.

However, the rate of increase in credit slowed as the investment boom began to decelerate after fiscal 2005-06 (Fig. 5). There were moves to secure credit immediately after the September 2008 Lehman shock, but the rate of increase slowed dramatically thereafter. This slowdown can be attributed to demand-side and supply-side factors. Demand-side factors included the economic slowdown, reduced demand for operating capital because of falling international commodity prices and raw material prices, as well as persistently high loan interest rates. A key supply-side factor is risk avoidance on the part of banks, which became increasingly concerned about the outlook for economic performance and business earnings.

Initially this credit crunch affected the entire business sector, but it gradually turned into a limited crunch targeting borrowers with low credit ratings, especially small and medium enterprises. Since the end of the fiscal year in March 2009, banks have shifted to a more aggressive lending stance than in the past and are lending selectively to blue-chip companies. The Reserve Bank has repeatedly urged banks to reduce loan interest rates and lend actively. However, factors that tend to slow the growth of lending are also playing a significant role. These include the fact that the demand for funds has not yet recovered fully, and the business sectors' expectations that loan interest rates will fall further.

(2) Changes in Profitability and Efficiency

①Profitability

Overall bank profitability has improved since the 1990s. However, we need to be aware that there are many indicators of profitability, and that profitability is affected by a wide range of factors. The most representative indicators are return on assets (ROA) and return on equity (ROE). There

has been a dramatic improvement in the ROA of public sector banks, which were previously affected by adverse earning conditions, including large amounts of non-performing assets. In contrast, there has been little improvement in the earnings of private sector banks, and the public sector banks are now closing the gap. The high ROA of foreign banks are attributable to their extremely high levels of off-balance-sheet transactions(12). ROE has also improved. However, credit expansion has caused a decline from the fiscal 2003 peak of 19.1%, and in fiscal 2006 ROE stood at 14.2%.

②Characteristics of Banks by Type

We will look next at the characteristics of each type of bank. First, the ratio of operating costs to total revenues has fallen from 71.9% in fiscal 1992 to 50.2% in fiscal 2007. Foreign banks have the lowest ratio (Table 8). If we break down costs into labor costs and other items, we find that the percentage of labor costs is higher among public sector banks and lower among new private sector banks and foreign banks.

Labor costs have been falling since the 1990s. This reflects restructuring measures, including early retirement programs, implemented by public sector banks around 2000. Another factor in recent years has been the growing use of outsourcing for simple tasks. The operating costs of new private sector banks and foreign banks have been affected by the expansion of branch networks and the introduction of new technology. Key factors influencing the operating costs of foreign banks include the use of high salaries to attract highly skilled personnel, and a strong emphasis on training and human resource management. Although their labor costs are rising, it is apparent from Table 8 that there are major differences in the cost structures of these banks compared with public sector banks. The fact that labor costs make up a large percentage of the total costs of public sector banks could have a negative influence on their long-term profitability.

Table 8 Profitability and Efficiency of Banks

(%, millions of rupees)

		Public sector banks		Private sector banks		Foreign banks	Total
①Profitability		SBI Group	State-owned	Old	New		
Return on assets (ROA)	FY1992	0.2	▲ 1.7	0.3	1.9	▲ 2.7	▲ 1.1
	FY2006	0.8	0.8	0.7	0.9	1.7	0.9
Return on equity (ROE)	FY92	12.6	▲ 52.4	13.6	13.0	▲ 47.0	▲ 36.1
	FY06	15.3	14.7	10.3	13.6	13.9	14.2
②Operating costs							
Operating costs/total revenues	FY92	59.2	86.4	66.8	39.4	59.2	71.9
	FY06	52.8	49.4	50.7	52.6	44.6	50.2
Labor costs/other costs	FY92	257.0	227.6	235.2	17.7	33.2	199.6
	FY06	189.8	174.5	131.0	39.4	66.1	119.9
③Non-interest revenues							
Non-interest revenues/total revenues	FY92	12.9	9.9	10.8	16.0	7.9	10.7
	FY06	12.2	10.5	12.1	19.6	27.8	14.1
④Labor productiivity							
(Deposits+loans) /number of employees	FY92	4.7	4.8	4.4	73.5	23.4	5.0
	FY06	43.6	49.0	48.6	81.8	99.5	52.2
(Deposits+loans) /number of branches	FY92	115.2	90.3	60.1	358.5	1,793.9	100.8
	FY06	771.4	627.8	523.1	2,939.6	10,041.0	793.9
⑤Efficiency (intermediation costs)							
Net interest margin/total assets	FY92	3.0	2.0	2.9	2.9	3.6	2.5
	FY06	2.8	2.6	2.7	2.4	3.7	2.7

Notes: Data for new private sector banks refer to fiscal 1995, not fiscal 1992.
Source: Reserve bank of India [2008b]

Second, there has been an upward trend in non-interest revenues (revenues from off-balance-sheet transactions and commission revenues). The level of non-interest revenues is especially high among new private sector banks and foreign banks, primarily because of the large contributions from off-balance-sheet transactions[13]. The stock market expanded rapidly in the early 1990s, leading to growth in related revenues. Bond trading revenues also expanded in the early 2000s but have tended to decline since fiscal 2004 because of rising interest rates.

Third, there has been a dramatic improvement in labor productivity, as measured by dividing the sum of deposits and loans by the number of employees. Between fiscal 1992 and fiscal 2006, this indicator increased by more than 10 times. However, the labor productivity of foreign banks is still more than twice as high as that of public sector banks. This is explained by the fact that public sector banks have many small-scale branches in rural areas. Another key indicator is obtained by dividing the sum of deposits and loans by the number of branches. Banks have achieved major improvements through branch rationalization, the increased use of ATMs and other factors. However, there is considerable disparity among the different types of banks. New private sector banks and foreign banks are focusing on business with high-net-worth individuals and blue-chip companies, primarily in urban areas.

③Efficiency of Financial Intermediation

Efficient financial intermediation is manifested in lower intermediation costs. There is no single definition of intermediation costs. If we look at the ratio of net interest margins to total assets, we find that there has been no clear downward trend. According to the Reserve Bank, the rapid expansion of credit in recent years has exerted upward pressure on net interest margins.

Of course, interest rates are not the only means of competition, and this trend alone cannot be seen as evidence that competition is not being stimulated. One reason for the high net interest margins of foreign banks is the fact that demand deposits make up a large percentage of their total deposits. Net interest margins are also influenced by changes in the shape of the yield curve (or yield spread). Furthermore, as discussed later in this article, there is a growing trend toward shorter-term deposits and longer-term loans. Judging from this trend, the fact that net interest margins have not changed significantly can be seen as evidence of improving efficiency. By the way, in many developed economies, net interest margins are below 2%. The level in India is not especially high compared with other developing economies. According to the Reserve Bank, figures for other economies in 2006 included 2.7% for South Korea, 3.3% for Thailand, 2.2% for Malaysia, 5.9% for Indonesia and 2.3% for China.

④Reasons for the Improvement in Profitability and Efficiency

Since the 1990s, Indian banks have gradually moved closer to their counterparts in developed economies in terms of profitability and the efficiency of financial intermediation. Contributing factors include the reduction of operating costs and the growth of non-interest revenues. This improvement was possible for the following reasons.

First, existing banks have worked to catch up with the highly profitable banks, including new private sector banks and foreign banks, that have moved into the Indian market. Specific initiatives that have helped them catch up include diversification into such areas as trading and services for individuals, the improvement of settlement systems, the installation of more ATMs, computerization and other forms of technological innovation, and share floats and restructuring by public sector banks.

Second, profitability has benefited from the reduction of the cash reserve ratio and the statutory liquidity ratio, interest rates liberalization, and the reduction of non-performing assets.

Third, there has been a trend toward shorter-term deposits and longer-term loans. The percentage of deposits maturing within one year has risen from 13% in 1990 to 40% in 2006, and the percentage of medium-term and long-term loans from 17.4% in March 1995 to 53.9% in March 2007[14].

5. Prudential Regulations and Their Effects

(1) The Development of Prudential Regulations

We will next examine the development of prudential regulations. First, regulations relating to capital adequacy ratios, income recognition, asset categories and the provision of reserves were gradually brought into line with international standards(15). The capital to risk weighted assets ratio (CRAR), which represents the minimum capital adequacy ratio, was set at 8% in 1994 and 9% in 1999.

Second, steps were taken to improve accounting and disclosure standards and diversify ownership, with the aim of improving bank governance(16). The government's percentage shareholdings in some public sector banks were reduced after those banks procured capital from the stock market.

Third, non-performing assets were reduced using a variety of disposal mechanisms established by the government and the Reserve Bank. In 2002, the procedures used by banks to protect their interests were strengthened, and financial institutions became able to buy and sell non-performing assets. These changes resulted in the gradual expansion of the options available for the disposal of non-performing assets.

Fourth, steps were taken to distribute credit risk by limiting the concentration of lending(17). Financial institutions were also encouraged to securitize their assets, and in February 2006 securitization guidelines were introduced.

Fifth, the Credit Information Bureau India Limited (CIBIL) was established in 2000 to improve credit information resources.

Sixth, steps were taken to strengthen the risk management structures of banks, including the introduction of ALM systems. By March 2009, all banks were subject to the Basel II standards. Since April 2007, it has become possible for banks to implement credit default swaps (CDS) with other institutions.

(2) Improvement of Bank Soundness

Capital adequacy (CRAR) has improved in all bank categories (Table 9). The ratios of state-owned banks and old private sector banks were quite low in the past, but by the end of March 2007 disparity among the different types of banks had been reduced, and all banks were above the 9% threshold. According to the Reserve Bank, the ratio of capital to total assets stood at 8.3% in 2006. This is not especially high when compared with the ratios for East Asian economies, such as South Korea (7.8%), Thailand (10.7%), the Philippines (13.1%), Malaysia (9.5%), Indonesia (12.1%) and China (6.8%).

With the development of prudential regulations in the 1990s, banks came under pressure to dispose of their non-performing assets. However, it is apparent from trends in the non-performing asset ratio that the progress was gradual, in part because of legal obstacles. This situation also had a negative impact on the expansion of credit. The subsequent creation of the asset disposal mechanisms described above helped to bring about a gradual reduction in the non-performing asset ratio, and by the end of March 2007, the ratio for all types of banks was around 1%. Dramatic reductions

Table 9 Soundness of Banks

(%, millions of rupees)

		Public sector banks		Private sector banks		Foreign banks	Total
		SBI Group	State-owned	Old	New		
Capital adequacy (CRAR)	1996/3	11.33	5.73	6.20	22.01	12.98	6.71
	2007/3	12.42	12.01	13.66	12.17	13.80	12.88
Net non-performing asset ratio (ratio to total loans)	96/3	6.88	10.10	4.44	0.41	0.71	7.68
	07/3	1.32	0.92	0.96	0.98	0.73	1.02

Notes: CRAR stands for Capital to Risk Weighted Assets Ratio.
Source: Reserve bank of India [2008b]

were achieved by public sector banks and old private sector banks, which initially had high ratios.

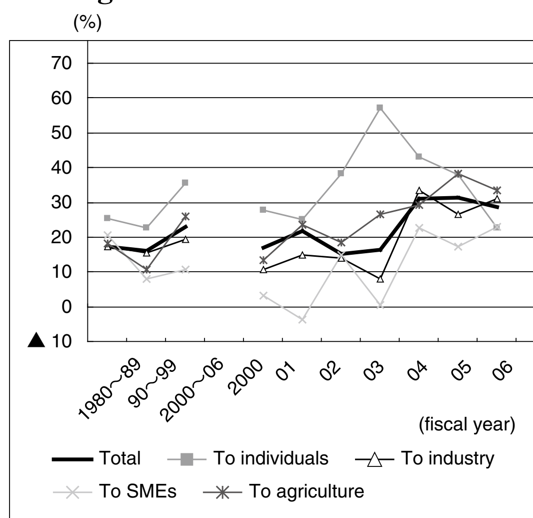
Credit information resources are being continually improved with the aim of preventing banks from incurring new non-performing assets. The reinforcement of the prudential regulations appears to have brought a major improvement in asset quality over the past few years. The maintenance of strict controls on capital transactions has also made a significant contribution to soundness.

6. Detailed Analysis of Bank Credit

(1) Credit to Individuals

We will conclude this section with an analysis of bank credit. The growth rate of credit to individuals has been consistently high since the 1980s (Fig. 6). Credit to individuals showed the highest growth in fiscal 2000-06, followed by credit to agriculture, industry and small and medium enterprises. A comparison of percentages of total bank credit in March 1990 and March 2007 shows that the share of credit to individuals rose from 6.4% to 22.3%, compared with declines from 15.9% to 11.8% for credit to agriculture, from 48.7% to 38.1% for credit to industry, and from 15.4% to 6.5% for credit to small and medium enterprises (Table 10).

Fig. 6 Growth of Bank Credit



Source: Reserve Bank of India [2008b]

Credit to individuals began to expand in the second half of the 1990s, after the removal of various restrictions, such as limits on total lending and interest rates restrictions. The rate of increase has almost consistently outpaced the growth of total credit. Categories of credit to individuals include housing loans, loans secured by time deposits, card loans, education loans, and loans for the purchase of durable consumer goods. The rate of increase has been especially high in the area of housing loans. As a percentage of total credit to individuals, housing loans have increased from 37.3% in fiscal 1992 to 52.8% in fiscal 2006 and now account for 11.8% of total credit(18). Reasons for this trend include rising income levels, increasing urbanization, a real estate boom, and tax incentives for salaried workers. Other factors affecting credit to individuals include increasing demand for durable consumer goods, and the growing popularity of credit cards and Internet

Table 10 Distribution of Bank Credit

(%)

	1990	95	2000	01	03	05	07	08
To individuals	6.4	9.0	11.2	12.2	15.1	22.2	22.3	20.1
To agriculture	15.9	11.8	9.9	9.6	10.0	10.8	11.8	11.3
To industry	48.7	45.6	46.5	43.9	41.0	38.8	38.1	38.4
To the service sector	22.2	25.1	25.3	26.8	26.2	23.6	24.5	25.5
To others	6.8	8.5	7.1	7.5	7.7	4.6	3.3	4.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
To SMEs	15.4	15.0	14.1	13.0	9.7	7.5	6.5	8.8

Notes: The figures are based on data for the end of March each year. Because data for credit to SMEs are from a different source (Reserve Bank of India [2009a]), the figures used as denominators are slightly different.This means that items cannot be compared as perfect equivalents. The ratio for March 2009 is 9.9%. The figures for SMEs include credit to industry SMEs and credit to the service sector SMEs.
Source: Reserve Bank of India [2008b], [2009a]

banking among the young, who make up a large percentage of India's population. Factors influencing banks include a decline in business demand for capital in the second half of the 1990s, and the need to distribute risk because of the high level of non-performing assets.

Foreign banks, which have the majority of their branches in urban areas, initially focused on the development of their business with individuals. Subsequently, private sector banks also began to target individuals, leading to a rapid rise in credit to individuals as a percentage of total business. Another factor that helped to drive the expansion of credit to individuals was the development of new products, such as variable-rate housing loans and card loans with various repayment methods.

(2) Credit to Industry

The provision of credit to the industrial sector is an important activity for banks. Traditionally, this business was divided into short-term and long-term segments, with banks providing short-term operating capital, and development financial institutions supplying long-term facility capital. This separation of roles gradually disappeared in step with the financial reform process and because of other factors, including the conversion of the development financial institutions into banks. This situation has resulted in the expansion of medium-term and long-term lending by banks, including lending for infrastructure development. The percentage of short-term lending has shrunk from 82.5% at the end of March 1995 to 46.1% at the end of March 2007.

At 15.4%, the average yearly increase in credit to industry was lower in the 1990s than in the 1980s, and the rate of increase has not been especially high in recent times. As a result, the amount of credit provided to industry has also declined gradually as a percentage of total bank credit. This is not a desirable trend from the viewpoint of support for economic growth.

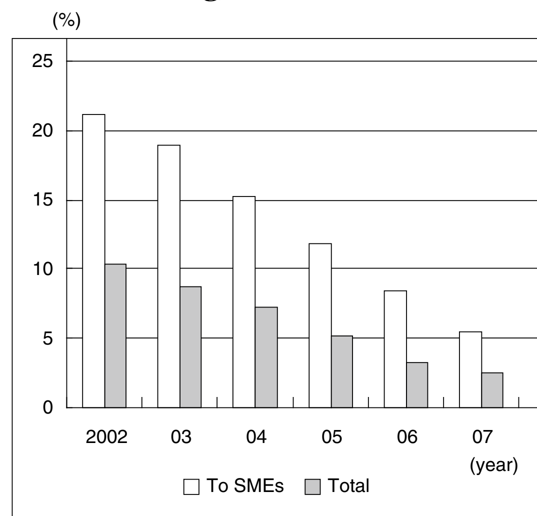
(3) Credit to Small and Medium Enterprises

Small and medium enterprises (SMEs), known as "small scale industries" in India, account for over 40% of added value and around one-third of exports. The accelerated development of SMEs is an important component of industrial policy. Until the 1960s, bank credit was limited to large enterprises and urban borrowers. After the nationalization of banks in 1969, the government created schemes of priority sector lending in 1972 with the aim of expanding the availability of credit to the other segments of borrowers. SMEs were identified as one of the priority sectors for these schemes, which will be examined in greater detail later in this article.

Because of the low rate of increase in credit to SMEs, this sector's share of total bank credit has tended to fall, and the number of accounts regarding loans to SMEs has fallen from 5.8 million in March 1992 to 1.9 million in March 2007. The broadening of definitions of priority sectors also led to a decline in credit to SMEs as a percentage of total priority sector lending, from 43.7% in March 1998 to 18.6% in March 2007, though this share had recovered to 26.6% by March 2009.

The fundamental reason for this lack of growth in credit to SMEs is the low growth rate of SMEs, which is reflected in a relatively high percentage of non-performing assets (Fig. 7). The ratio is

Fig. 7 Gross Non-Performing Asset Ratio (Percentage of Total Lending)



Notes: The data are for the end of March in each year.
Source: Reserve Bank of India [2008b]

tending to decline, but remains relatively high.

(4) Credit to the Agricultural Sector

From an average of 18.1% per annum in the 1980s, the growth rate of credit to the agricultural sector sank to 10.6% per annum in the 1990s. This sector's share of total bank credit also declined, from 15.9% in March 1990 to 9.6% in March 2001[(19)]. Initiatives by the Reserve Bank and government caused the rate of increase to accelerate in subsequent years. Specific measures included a shift from short-term lending to medium-term and long-term lending, and an increase in the target for bank lending to the agricultural sector. As a result of these measures, the number of loan accounts to the agricultural sector increased from 19.84 million in fiscal 2000 to 26.66 million in fiscal 2004.

A lack of rural branches would make it difficult for new private sector banks and foreign banks to expand their lending to agricultural sector. Lending to the agricultural sector is one of the targets included in the priority sector lending by private sector banks. They are required to meet this target in various ways, such as by depositing funds with the National Bank for Agriculture and Rural Development (NABARD). Methods for lending to the agricultural sector through micro-finance have also been developed, and this type of activity is increasingly seen as a potential area of business for banks.

III. Challenges for the Banking Sector

1. Banking Sector Expansion and Appropriate Distribution of Funds

In Part III we will analyze some of the challenges facing the Indian banking sector. The following overview of those challenges is based on the preceding discussion.

The high growth achieved since 2000 has been accompanied by rises in the savings and investment rates. At the same time, businesses have become increasingly reliant on external financial resources, and in addition to a surge in bank credit, there has also been an increase in financing through domestic and overseas stock markets and overseas borrowing. These trends show that external financial resources will play a major role in sustaining India's high growth in the future. Particularly significant is the vast need for infrastructure development funds. India's expanding savings need to be linked appropriately to investment. The essential role of the banking sector in this context is to provide efficient financial intermediation while ensuring that financial resources are distributed efficiently into productive sectors. Given the low level of India's ratio of domestic credit to GDP, it will also be necessary to expand the banking sector. Another issue that will need to be considered is the small size of individual banks. However, rapid credit expansion would not be desirable from the viewpoint of economic stability, and another vital priority will be the maintenance of soundness through the improvement of banks' risk management capabilities, and the reinforcement of regulation and supervision.

The effects of the financial reform process that began in the 1990s include the promotion of competition in the banking sector, and improvements in earning performance, efficiency and soundness. The expansion of credit since 2000 would not have been possible without these improvements, and in this sense the financial reform process has yielded tangible benefits. However, there is still room for further improvement in efficiency. Action is also needed to remedy the downside rigidity of loan interest rates, which has been a frequent target for criticism. Even during the monetary easing phase that followed the onset of the global financial crisis, loan interest rates fell by only 1-2%, despite a 4.25% reduction in the repo rate, which is India's policy interest rate (Table 11). This is primarily a problem relating to bank supervision. Action to remedy these issues could be expected to stimulate credit expansion.

A number of structural problems will need to be tackled if the Indian banking sector is to expand. The first problem is the fact that financial savings make up only a small portion of total household savings (Fig. 8). While the savings rates of both

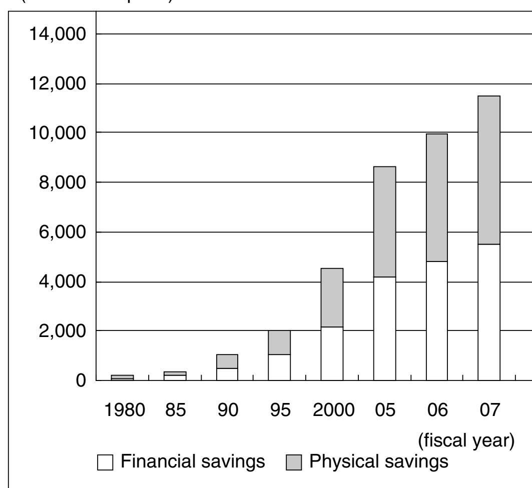
Table 11 Reduction of Deposit and Loan Interest Rates (October 2008-October 2009)

(bps)

	Deposit rate	BPLR	Average reduction of BPLR	Number of banks that cut their BPLR
Public sector banks	175－350	125－275	193.5	27／27
Private sector banks	100－375	100－125	98.9	20／22
Foreign banks	125－300	125	64.3	14／28

Notes 1: BPLR stands for "Benchmark Prime Lending Rate."
Notes 2: The data used to calculate range of interest rate changes for foreign banks (the two columns on the left) refer only to the five major banks.
Source: Reserve Bank of India

Fig. 8 Breakdown of Household Savings



Source: Reserve Bank of India [2009a]

the private corporate sector and the public sector have risen in recent years, this trend is not reliable, and further growth in household savings is essential. This will require initiatives to expand financial savings, including an increased emphasis on the development of financial products, and induce a shift from physical savings to financial savings. Physical savings include the purchase of assets, such as real estate, machinery and facilities. Some of those assets are held by unincorporated business enterprises, which are indistinguishable from the household sector. This problem is linked to financial inclusion[20]. The productivity of unincorporated business enterprises is generally low. A shift from physical savings to financial savings could therefore be expected to contribute to higher economic growth, since more financial resources could be channeled into areas in which productivity is relatively high.

Second, the existence of the statutory liquidity ratio has increased the percentage of bank resources invested in government bonds. This may have limited the expansion of bank credit.

Third, there has been a shift in the distribution of financial resources. Credit to individuals is tending to increase, while there has been a downward trend in credit to industry. In recent years industry's share of credit has remained static at around 38%, while credit to small and medium enterprises has remained conspicuously stagnant. We need to be aware that credit to industry also includes infrastructure-related finance, which has expanded dramatically.

Large corporations experience few problems with access to financial resources, since they can issue shares or procure overseas loans relatively easily. These options are not available to small and medium enterprises, however, and their access to financial resources can be limited. Another factor that may hinder access to financial resources for small and medium enterprises is the heavy reliance of major corporations on bank borrowing because of the underdeveloped state of the corporate bond market. In this sense, the development of the corporate bond market and institutional investors is an extremely important priority.

To what extent has the stagnation of credit to industry imposed financial constraints on businesses? This is a difficult question to answer. Analysis of business sector financing in fiscal 2001-04 in Allen et al. [2007] shows that major corporations obtained 26% of their finance from formal sources, 20% from informal sources, and 54% from retained earnings, and that formal sources accounted for 8% of finance procured by small and medium enterprises, informal sources for 85%, and retained earnings for 7%. According to McK-

insey & Company [2006], the scale of informal finance was equivalent to about one-third of formal finance, and informal finance accounts for around 70% of total credit to agriculture. In spite of the subsequent expansion of bank credit, there is still considerable room for the growth in the role of formal finance in business sector financing, especially for small and medium enterprises.

2. Reassessment of Related Policies

(1) Statutory Liquidity Ratio

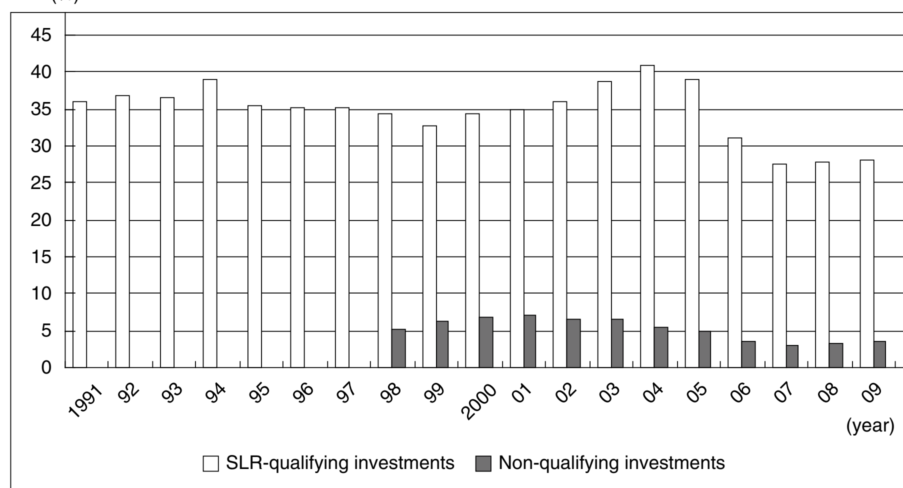
The statutory liquidity ratio (SLR) is a regulation requiring banks to place a specified percentage of their deposits, referred to as "net demand and time liabilities : (NDTL), in government bonds or other qualifying bonds(21). The SLR remained at 38.5% between September 1990 and December 1992 and was cut gradually to 25% in October 1997.

In terms of actual investing activities, banks have maintained their investment in qualifying bonds at around 35%, and at the end of March 2004 the ratio was above 40% (Fig. 9). As noted earlier, this pattern emerged because of a decline of the business sector's demand for financial resources in the second half of the 1990s. In addition, banks became increasingly risk averse because of pressure to improve their capital adequacy ratios and reduce non-performing assets. A downward trend in interest rates further enhanced the attractiveness of bond investment.

Demand for credit has expanded dramatically after fiscal 2003, and banks curbed new investment in qualifying bonds. In fiscal 2005 they sold off part of their government bond holdings. Since then they have again started to invest. Investment in government bonds increased with the onset of the global financial crisis because of the need to avoid risk. Investment in non-qualifying securities, such as shares, corporate bonds and CP, has remained at around 5% of NDTL.

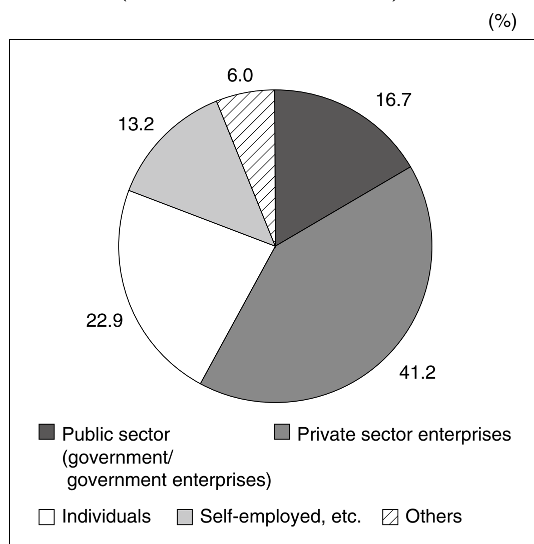
Since the liberalization of government bond interest rates and loan interest rates, the former have no longer been substantially lower than the latter. This situation has prompted banks to invest in government bonds of their own accord. In March 2009 the rate of investment in qualifying bonds stood at 28.1%, which is not especially high by international standards(22). This means that the SLR is not a major limiting factor at present. However, the present ratio of 25% or higher could become a barrier to the expansion of bank credit as the economic growth rate rises in the future. At that stage it will probably be necessary to reduce the ratio(23).

Fig. 9 Percentage of Bank Deposits (NDTL) Invested in Securities



Notes: Based on data for March 31 each year.
Source: Compiled from Reserve Bank of India [2009a], etc.

Fig. 10 Recipients of Bank Credit (End of March 2008)



Source: Reserve Bank of India [2008a]

Before that can happen, it will be necessary to reduce the fiscal deficit.

In addition to investment in qualifying bonds, banks supply 16.7% of their credit to the public sector (Fig. 10). This means that at least 30% of bank assets are allocated to the government and government-affiliated companies through credit or investment. Another reason for considering a change to the SLR is potential for an increased contribution from private sector vitality.

(2) Priority Sector Lending

①Schemes and Outcomes

Priority sector lending requires domestic banks to allocate at least 40% of their net bank credit (NBC) to priority sectors. The ratio for foreign banks is 32%. The main priority sectors are agriculture, micro and small enterprises, "weaker sections" of society, and export credit. The definitions of priority sectors have been progressively broadened in response to persistent lobbying by banks, which were concerned about low rates of return on their lending in these areas. The sectors that have been added subsequently include export credit, education loans, housing loans, loans to the software industry, venture capital financing, and leasing.

In April 2007, the priority sector system was substantially rationalized with the announcement of new criteria. The sectors now covered by the system are agriculture, micro and small enterprises, retail trade, micro credit, education loans and housing loans. Export credit is also included in the case of foreign banks. The denominator is now adjusted net bank credit (ANBC), which consists of net bank credit together with part of investments in non-qualifying bonds.

Under the allocation targets, domestic banks are required to allocate at least 18% to agriculture and 10% to "weaker sections." Foreign banks are required to allocate at least 10% to micro and small enterprises and at least 12% to export credit. Banks that are unable to meet these targets must deposit funds with the Rural Infrastructure Development Fund (RIDF), which is administered by NABARD, in the case of domestic banks, and with the Small Enterprises Development Fund (SEDF), which is administered by the Small Industries Development Bank of India (SIDBI), in the case of foreign banks.

At the end of March 2009, lending to priority sectors accounted for 35.2% of non-food gross bank credit (Table 12). The percentage of this lending allocated to the agricultural sector and micro and small enterprises fell from 79.3% in 1990 to 51.9% in 2006 but had recovered to 65.1% by 2009. Lending to the agricultural sector has often fallen short of the 18% target (Table 13). As is clear from the breakdown of lending to priority sectors in Fig. 11, the percentages allocated to housing loans and retail trade finance are quite high.

②Credit to Agriculture and SMEs

We will look next at the initiatives used to expand credit to agriculture and SMEs. Efforts to increase credit to agriculture in the form of formal finance included the expansion of regional rural banks and the establishment of NABARD in 1982. However, informal finance increased by a bigger margin than formal finance during the 1990s. Within the formal finance category, there was a major shift from co-operative institutions to banks as the providers of finance. The rate of increase

Table 12 Balance of Lending to Priority Sectors

(billions of rupees, %)

	All priority sectors		Agriculture	SMEs	
	Amount	Percentage of bank credit ①	Percentage of bank credit ②	Percentage of bank credit ③	(②+③)/①
1990	404	40.1	16.4	15.4	79.3
95	642	34.7	13.0	15.0	80.7
2000	1,318	35.1	11.8	14.1	73.8
05	3,815	38.2	12.5	7.5	52.4
06	5,107	36.4	12.4	6.5	51.9
07	6,360	35.3	12.8	6.5	54.7
08	7,474	33.9	12.5	8.8	62.8
09	9,159	35.2	13.0	9.9	65.1

Notes 1: Bank credit is defined as non-food gross bank credit (NFGBC).
Notes 2: Data refer to the end of March each year.
Source: Reserve Bank of India [2009a]

Table 13 Achievement of Priority Sector Lending Targets

Public sector banks (%)

	2007	08	09	
All	**39.7**	**44.7**	**42.5**	(40% or higher)
Agriculture	15.4	18.3	17.2	(18% or higher)
SMEs	7.8	11.1	11.3	
Weaker sections	7.1	8.9	9.8	(10% or higher)

Private sector banks

	2007	08	09	
All	**42.9**	**47.8**	**46.8**	(40% or higher)
Agriculture	12.7	17.0	15.9	(18% or higher)
SMEs	3.9	13.7	11.8	
Weaker sections	1.6	2.0	3.9	(10% or higher)

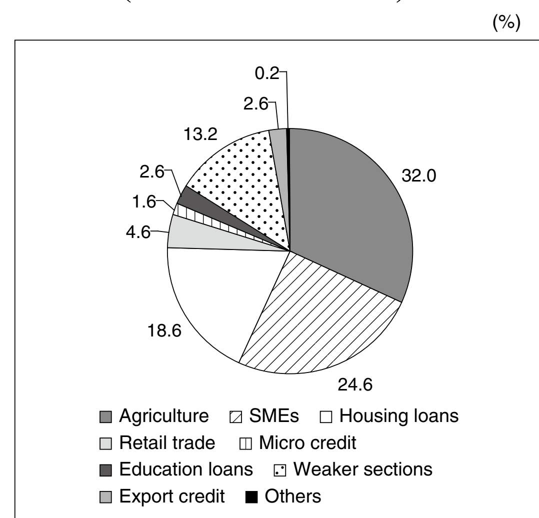
Foreign banks

	2007	08	09	
All	**33.4**	**39.5**	**34.3**	(32% or higher)
SMEs	10.3	12.2	11.2	(10% or higher)
Export credit	18.3	22.7	19.4	(12% or higher)

Notes 1: The definition of small and medium enterprises has changed between 2007 and 2008.
Notes 2: The figures for public sector banks are percentages of net bank credit rather than narrowly defined target achievement ratios. The figures for private sector banks and foreign banks are narrowly defined target achievement ratios.
Notes 3: Data refer to the end of March each year.
Source: Ministry of Finance, Government of India [2010]

Fig. 11 Breakdown of Lending to Priority Sectors (End of March 2009)

(%)



Notes: The total is equivalent to 40.7% of non-food gross bank credit.
Source: Reserve Bank of India [2009b]

in bank credit to the agricultural sector has risen since 2000, in part because of the policy moves described earlier in this article.

Banks have been criticized by the Reserve Bank for their failure to adapt their product development systems and credit risk assessment and management systems adequately in response to structural changes, including the trend toward large-scale commercial farming. Another problem is that access to banking services is still difficult for small-scale farmers and land-less workers. There has also been a decline in the percentage of long-term finance for investment in machinery and facilities. Reasons for this include the complexity of risk management, and a lack of suitable collateral. In addition, the Reserve Bank has highlighted the need for banks to cooperate with providers of informal finance[(24)]. In the area of credit for the poor, NABARD is expanding its Self-Help Group (SHG)

Bank Linkage program[25]. Micro-finance will help to reduce the use of informal finance, but this will require work in a number of areas, including the development of regulations, the provision of funds and the accumulation of expertise.

Factors that have hindered the growth of credit to small and medium enterprises include a lack of credit information, and the fact that it is difficult for banks to provide unsecured loans. There has also been criticism that banks apply unnecessarily high interest rates to small and medium enterprises so that they can provide low-interest loans to large corporations.

A range of policy initiatives have been introduced with the aim of expanding credit to small and medium enterprises. The government passed the Credit Information Companies Regulation Act in 2005 and the Micro, Small and Medium Enterprises Development Act in 2006. The latter, which changes the definition of small and medium enterprises, is designed to remedy weaknesses in government policies toward small and medium enterprises. The traditional method of providing preferential finance to small and medium enterprises robbed them of incentives to expand the scale of their activities[26]. In addition, the Reserve Bank has established committees in each of its domestic offices to monitor the expansion of credit to small and medium enterprises and progress toward their restructuring.

In addition to domestic banks, including SBI and ICICI, there are signs that foreign banks, such as Standard Chartered and HSBC, are also working to provide more credit to small and medium enterprises and expand their small loan facilities for individuals and self-employed people[27]. Rating agencies, such as Credit Rating Information Services of India Ltd. (CRISIL) have meanwhile started to enhance their rating services for small and medium enterprises. These efforts have been resulted in accelerated growth in credit to small and medium enterprises since fiscal 2007.

③Review of Priority Sector Lending Needed

While priority sector lending has helped to expand the supply of credit to the sectors concerned, the targets have not always been achieved. When a target is not met, credit must be provided indirectly by depositing financial resources with funds as described ealier. Furthermore, the definition of priority sectors has been expanded to include sectors that are not in line with the original intentions of the program. For example, when housing loans were first added to the priority sectors in the 1990s, eligibility was limited to loans of 500,000 rupees or less. This limit has since been raised to 2 million rupees. To obtain a loan of 2 million rupees, the borrower would at least need an annual income of 400,000 rupees and could not be classed as poor. Even education loans for people studying overseas have been included in the priority sectors.

The expansion of the definition is closely linked to poor returns on credit to the original priority sectors. In other words, if the system is administered strictly, it would erode the profitability of banks.

Moves to retrench the system met with strong political resistance, and the expansion of the definition appears to have been seen as a compromise solution. Unfortunately, the growing complexity of the system has led to increases in banks' transaction costs. Furthermore, since any increase in ordinary lending requires a proportionate increase in lending to priority sectors, the system also has the potential to impact on other areas of business, such as lending to blue-chip companies.

Ideally, sectors to which credit can be provided on a commercial basis should be excluded from the system, and eligibility should be limited to sectors in which there is a genuine need for financial resources. Other possible solutions include the reduction of costs to make lending to priority sectors more profitable, the provision of subsidies, and the expansion of the role of specialized institutions. Another issue is the application of different regulations to domestic and foreign banks. While this may be unavoidable because of differences in numbers of branches and other factors, it is not ideal from the viewpoint of treating all financial institutions equally, and the government should consider other approaches.

(3) Lack of Progress toward Financial Inclusion

①Current State of Financial Inclusion

Another important issue is the expansion of financial savings as a share of total household savings. Some physical savings are created by entities that do not deal with banks, such as informal sector businesses. This phenomenon reflects a lack of financial inclusion.

Financial inclusion is closely linked to the promotion of inclusive growth. While the balance of bank savings has risen from 36% of GDP in fiscal 1995 to 72% in fiscal 2008, the continuing existence of informal finance indicates that India has not made sufficient progress toward financial inclusion. Examples of informal financial activity relating to deposits include the accumulation of cash in homes, and the entrustment of money to relatives or moneylenders. With these methods, there is a high risk that the money will be lost.

Key initiatives to increase financial inclusion include bank nationalization, priority sector lending, and the expansion of networks of various financial institutions. In recent times, post offices and NGOs have also been used to expand networks. In the banking sector, priority has been given to rural areas when establishing new branches (Table 14). The rural sector has received the biggest share of new branches in both absolute and percentage terms, and in March 2009 almost 40% of all branches were in rural areas. However, there has been no increase in the number of rural branches since the financial reform process began in earnest in 1990. This shows that the liberalization of branch establishment will put the rural areas at a disadvantage as a target for business.

Banking activities continue to be concentrated in urban areas, and the rural sector's shares of credit and deposits have remained low. As income levels have risen, growth in the number of personal bank accounts has outpaced population growth, and there have been signs of improvement in both the urban and rural areas (Table 15). However, the number of accounts per 100 people declined between 1991 and 2001 and increased only marginally between 1991 and 2007. Furthermore, in 2007 there were only 26.2 accounts per 100 people in the rural areas, compared with 50.7 in the urban areas[28]. This shows that progress toward financial inclusion cannot be maintained simply by increasing the number of branches, since the use of banking services is also linked to other factors, such as income levels.

②Policy Responses

In its Annual Policy Statement for fiscal 2005, the Reserve Bank expressed the view that as far as people with no access to formal financial services were concerned, the current trend was toward exclusion rather than inclusion. It presented a clear agenda, stating that banks should achieve financial inclusion[29].

In November 2005, the Reserve Bank advised banks to establish "no-frills" accounts that would not be subject to minimum balance requirements and fees. By the end of 2007, 12.6 million of these accounts had been opened. Steps have also been taken to simplify the personal identifica-

Table 14 Growth in Number of Bank Branches

(Times)

	Nation-wide	Rural	Suburban	Urban	Major cities
1969	8,262	1,833	3,342	1,584	1,503
90	59,752	34,791	11,324	8,042	5,595
2009	82,408	31,699	19,082	16,614	15,013
2009／1969	10.0	17.3	5.7	10.5	10.0
09／90	1.4	0.9	1.7	2.1	2.7

Notes: Data refer to the end of March each year.
Source: CEIC data base

Table 15 Number of Bank Accounts

(Accounts)

		1981	91	2001	07
Urban	Accounts (millions)	40.9	99.2	110.2	159.7
	Accounts per 100 people	25.7	45.6	38.5	50.7
	Accounts per 100 adults	42.3	73.1	58.9	75.2
Rural	Accounts (millions)	56.9	153.8	169.8	213.8
	Accounts per 100 people	10.9	24.5	22.9	26.2
	Accounts per 100 adults	17.9	39.2	35.0	38.8
Total	Accounts (millions)	97.8	253.0	280.0	373.5
	Accounts per 100 people	14.3	29.9	27.2	33.0
	Accounts per 100 adults	22.9	46.8	41.5	48.9

Notes: Data refer to the end of March each year.
Source: Reserve Bank of India [2008b]

tion procedures required when opening bank accounts. Various other measures have also been implemented, including the expansion of financial literacy education and credit counseling. In this context micro-finance has increasingly been seen as an important tool for the promotion of financial inclusion.

Improvements will be needed in other areas. For example, it will be necessary to increase the range of saving options available, including the enhancement of investment trust funds and insurance products[(30)]. Other priorities include the increased use of financial technology, such as ATMs and Internet banking, and the development of products to meet the savings needs of low-income people. The stimulation of competition in the banking sector will also help, albeit indirectly, to bring the rural areas into focus as a business target. Another challenge will be bring resources that are currently invested in gold, which is an important savings tool in India with holdings equivalent to around one-half of the balance of bank deposits, into the financial system[(31)].

Finally, measures targeting the financial sector will not be sufficient to move India away from a situation in which physical savings account for a large share of total household savings[(32)]. To reduce the number of businesses in the informal sector, it will be necessary to increase employment in the rural areas. This will require the improvement of rural infrastructure, an easing of labor regulations, and measures to stimulate the growth of manufacturing industries.

3. Industry Restructuring

(1) Accelerating Bank Amalgamation and Maintaining a Competitive Environment

As observed earlier in this article, Indian banks are small by international standards. At the end of March 2009, the total assets of the biggest bank, SBI, amounted to 9.6 trillion rupees (approximately $200 billion), while second-ranked ICICI had only 3.8 trillion rupees (about $80 billion). We will look now at measures to accelerate bank amalgamation, which affect the size of banks.

In the period after independence, mergers and closures reduced the number of banks in India from 561 in 1951 to 89 in 1969. Under the Reserve Bank guidance, many weaker banks were absorbed by banks with sound financial positions.

Between fiscal 1990 and fiscal 2006, one new public sector bank, 16 private sector banks and 38 foreign banks entered the market. During the same period, financially healthy public sector banks and private sector banks absorbed a number of banks (eight in fiscal 1990-99, 13 in fiscal 2000-07). Most of the banks that were absorbed were weak, small-scale private sector banks. This method is commonly used to rescue problem banks in India. Of course, there are also mergers between healthy banks, though there has been almost no amalgamation among public sector banks. Factors reducing the number of foreign banks include branch consolidation and closure as a result of mergers among parent banks, or withdrawal from the Indian market.

In its 1991 report, the First Narasimham Committee referred to the small size of Indian banks and stated that amalgamation was essential to the achievement of international competitiveness. Numerous reports, including the 1998 report of the Second Narasimham Committee[(33)], have since stated that India has too many banks, and that the size of individual banks needs to be expanded.

Scale is an important factor influencing a bank's ability to develop sophisticated financial products and reduce costs through technological innovation. However, banks must also be able to fulfill their role by providing appropriate services efficiently, and the elimination of services that were previously provided by smaller banks is not a desirable outcome of amalgamation. Another challenge is to maintain a competitive environment while promoting amalgamation. When banks expand, they become vulnerable to the moral hazard of reliance on government rescues (the "too big to fail" problem). The Reserve Bank will need to counter this problem by implementing appropriate regulations. Because of the need to maintain a competitive environment, amalgamation is likely to be limited to weak, small-scale banks in the foreseeable future. Most of the mergers implemented so far have in-

volved small-scale banks, and the impact on the competitive environment has been limited. However, future mergers between major banks could have serious implications for competition.

Because of the potential effects on the competitive environment, the government should urgently reconsider its roadmap for the entry of foreign banks into the market, which has been shelved(34). In principle, the amalgamation process should also include mergers between public sector banks, and the acquisition of public sector banks by private sector banks.

(2) Problems Surrounding Public Sector Banks

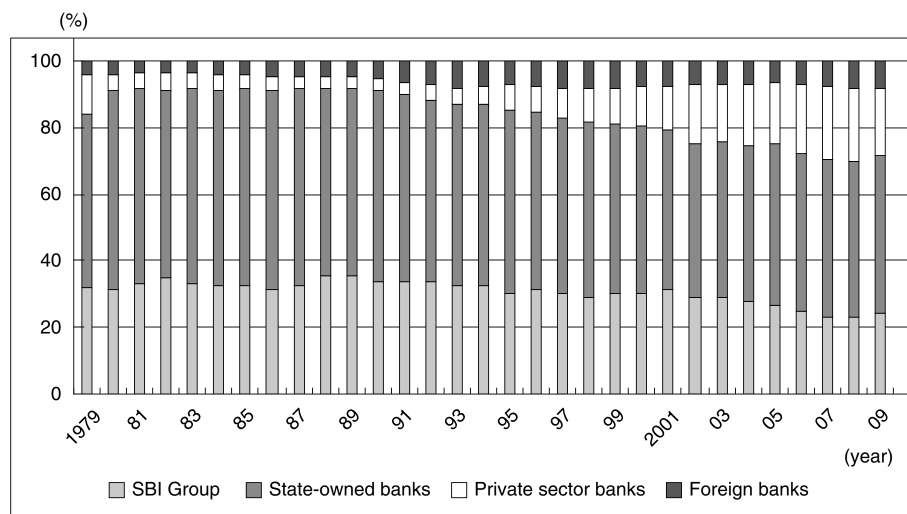
①Positive Stance toward Bank Ownership by the Government

Should the government continue to own banks? This is an important question. The nationalization of banks in 1969 and 1980 resulted in increases in the number of branches in rural areas and led to the distribution of financial resources in accordance with government plans. However, government ownership has been the focus of continual debate since 1990. The First Narasimham Committee took the view that the ownership structure was irrelevant to bank profitability and efficiency and stated there was no need to move away from government ownership. Subsequent economic reforms were accompanied by calls for the privatization of banks, but while government-owned banks have procured capital from the stock market, they have not been privatized. In the 1980s, the assets of public sector banks accounted for over 90% of all banking sector assets. This share has gradually fallen since that time and was around 72% in March 2009 (Fig. 12).

A number of arguments can be put forward in favor of government ownership of banks. First, the assumption that public sector banks were covered by implicit government guarantees helped to stave off the effects of the global financial crisis. Since fiscal 2008, the public sector banks have recorded the largest increases in loans and deposits (Table 16), and this growth has been paralleled by growing support for government ownership.

Second, as shown in Table 11, monetary easing has failed to bring down loan interest rates sufficiently. While all 27 public sector banks cut their loan interest rates by an average of around 2% between October 2008 and July 2009, 20 of the 22 private sector banks made reductions averaging about 1%, while 14 of the 28 foreign banks cut their rates by only 0.6% on average. The fact that public sector banks are relatively loyal to the

Fig. 12 Bank Assets



Notes: Data refer to the end of March each year.
Source: CEIC data base

wishes of the government and the Reserve Bank has helped to ease the downside rigidity of loan interest rates and enhance the effectiveness of monetary policy transmission mechanisms.

Third, there is no longer any variation in the earning performance, efficiency and soundness of banks in each of the categories. One reason for this is the promotion of competition, which encouraged public sector banks to make increased efforts to improve their performance. In addition, public sector banks became subject to market discipline to some extent after procuring capital through the stock market. In addition, the relatively large size of public sector banks makes it easier for them to achieve economies of scale.

Table 16 YoY Increases in Loans and Deposits

(%)

		2008/3	09/3	09/7
Public sector banks	Loans	22.5	20.4	21.9
	Deposits	22.9	24.1	26.4
Private sector banks	Loans	19.9	10.9	4.2
	Deposits	19.9	8.0	6.7
Foreign banks	Loans	28.5	4.0	▲7.1
	Deposits	29.1	7.8	16.4
Total	Loans	22.3	17.3	16.3
	Deposits	22.4	19.8	21.9

Source: Reserve Bank of India

Fourth, the main reason for the nationalization of banks was to expand branch networks and increase business in rural areas. Priority sector lenging has certainly increased the availability of credit to agriculture and small and medium enterprises, and in this sense we can say that nationalization has been basically successful.

②Problems with Government Ownership of Banks and the Future Outlook[35]

Problems have also been identified in relation to government ownership of banks. First, while gaps in earning performance and soundness have been eliminated, there are significant differences between public sector banks and private sector and foreign banks in terms of the business models used (Table 17). There is doubt about the competitiveness of the business model of the public sector banks amid the continuing trend toward economic and financial globalization. Their ability to increase their capital is also limited because of the requirement to maintain at least 51% government ownership.

Because of their large branch networks and work forces, public sector banks have substantial labor costs, and their labor productivity is relative-

Table 17 Bank Balance Sheets (End of March 2009)

(%)

	Public sector banks	Private sector banks	Foreign banks
Assets			
Cash and reserves	6.0	5.6	3.5
Interbank deposits, etc.	3.5	3.3	7.4
Investments	26.9	29.8	29.2
Qualifying investments	22.7	21.1	22.4
Non-qualifying investments	4.2	8.7	6.8
Loans	60.0	56.0	37.0
Subtotal: Medium/long-term	32.8	38.9	17.3
Others	3.7	5.3	23.0
Total	100.0	100.0	100.0
Liabilities			
Capital, reserves, surpluses	5.6	9.8	13.4
Deposits	82.6	71.7	47.9
Demand	8.3	9.8	13.5
Savings	18.7	13.7	6.4
Time	55.6	48.2	27.9
Borrowings	4.2	9.2	15.7
Others	7.6	9.4	23.0
Total	100.0	100.0	100.0

Source: Reserve Bank of India [2009b]

ly low. Furthermore, private sector banks and foreign banks earn substantial non-interest revenues and have been able to diversify their activities. Foreign banks in particular have high return on assets because of the high level of their off-balance-sheet transactions.

Public sector banks are heavily reliant on income from business with individuals, especially their existing customer bases. In contrast, private sector banks and foreign banks have focused on business with urban enterprises and urban individuals, who are relatively wealthy and young on average. Public sector banks have lagged behind private sector and foreign banks in many areas of business, including investment trust fund sales, cash management and credit card services, and private banking. There are also gaps in organizational capacity(36), sales channels, the ability to manage credit risk and other types of risk, financial technology, including investment know-how, and the ability to use IT to reduce costs. Although public sector banks are catching up in these areas, they have a long way to go.

Second, the government has sought to achieve its targets for priority sector lending by expanding the definition of priority sectors. It needs to return to the original aim of the policy, which was to expand credit to agriculture and small and medium enterprises. Also, there is little variation among the types of banks in terms of the achievement of targets.

Although the expansion of rural branch networks by public sector banks has played a major role in overall progress toward financial inclusion, there has been no increase in the number of rural branches operated by public sector banks since the 1990s. There is considerable variation in the business activities of the different types of banks in urban areas, but there is little difference in their activities in the rural areas. The government has recognized that the scope for progress under existing financial inclusion policies is limited and is diversifying its approach. Banks need the capacity to adapt flexibly to this change. Specifically, they will need to be efficient and able to introduce new technology. In short, banks will need to place greater emphasis on economic rationality in the future(37).

To strengthen their international competitiveness, banks must be capable of management flexibility. They also need to strengthen their capital positions substantially. In the longer-term perspective, it will probably be necessary to intensify the debate on options for public sector banks, including privatization and the reduction of government ownership ratios. Of course, none of these options can be implemented overnight, and the reform process will have to be gradual. First, public sector banks should expand employee remuneration systems that will provide incentives for the improvement of business performance. Second, there is a need for governance reform, including the reinforcement of the decision-making authority of boards of directors, so that the rights of minority shareholders can be respected.

Conclusions

Some observers see the fact that the Indian banking sector has never experienced a major financial crisis as evidence that there are no serious problems. However, the ratio of domestic credit to GDP is not high by international standards, and the scale of individual banks is relatively small. There are also characteristic systems, including priority sector lending and government ownership of banks.

India’s rapid growth since 2000 has been accompanied by increases in both savings and investment rates. This process has also brought an increase in external procurement of financial resources. This suggests that external financing plays an important role in the achievement of high economic growth. Priorities in this context include the structural expansion of bank credit through the expansion of financial savings, and the improvement of the efficiency of financial intermediation and the allocation of financial resources.

These goals will require further improvements in the efficiency of the banking sector, and the setting of loan and deposit interest rates at levels that reflect market realities. Other essential steps include a review of the statutory liquidity ratio (SLR) system and priority sector lending, and the

promotion of financial inclusion. When designing financial inclusion systems, including priority sector lending, greater emphasis will need to be placed on economic rationality. To expand financial savings, it will also be necessary to focus on measures to reduce the number of informal sector enterprises, including the expansion of rural employment.

By further developing its banking sector and building a strong financial system, India should be able to look forward to sustained high growth over many years.

End Notes

1. A scheduled commercial bank is a bank that is soundly managed and has paid-up capital and reserves totaling at least 500,000 rupees.

2. The following observations are based in part on interviews conducted in Delhi and Mumbai in July 2009.

3. The following description is based mainly on Mohan [2009].

4. In the wake of the Lehman shock, the risk weighting for loans to unrated companies was reduced from 150% to 100% in November 2008. Provisioning regulations on standard assets of personal loans, capital market-related loans, lending on commercial real estate and housing loans were first tightened in January 2007 and then eased in November 2008, when a uniform provisioning rate of 0.4% was introduced.

5. Moreover, it is estimated that investment totaling about $1 trillion will be required during the period covered by the 12th Five Year Plan. The government has stated that it is necessary to spend one-half of domestic savings on infrastructure investment during the 11th Five Year Plan (Reserve Bank of India[2008b], Page 271).

6. Development financial institutions played an important role in the 1990s. However, that role has shrunk since 2000. Internationally, the involvement of banks in the procurement of financial resources for infrastructure development has generally declined in recent years, and there are few countries other than India in which that role is expanding.

7. One of the recommendations in the 1991 report of the First Narasimham Committee was that the entry of private sector banks and foreign banks was essential in terms of stimulating competition.

8. See Shimizu [2009a] for a detailed analysis of the development of India's foreign exchange and monetary policies.

9. Interest rates on loans under 200,000 rupees must not exceed the PLRs.

10. In India, interest rate changes are reflected relatively quickly in loan interest rates, but deposit interest rates are not adjusted until maturity. As a result, the net interest margin tends to shrink when interest rates are falling.

11. In effect, interest rates were liberalized, since banks were able to set lending rates lower than their prime lending rates.

12. The exposure of public sector banks and old private sector banks to off-balance-sheet transactions is equivalent to about 20-30% of total assets, compared with around 200% for new private sector banks and 1,800% for foreign banks.

13. For example, the services provided in India by one major foreign bank, the Standard Chartered Bank, include deposits, settlement services, investment products, loans and credit card services for individual customers, and cash management services, loans, guarantees, trade finance, deposits, capital market products, derivatives, corporate advisory services and custody services for corporate customers.

14. Obviously, this trend has brought with it the risk of term mismatching.

15. The asset categories used since 1994 are standard assets, sub-standard assets, doubtful assets and loss assets. Except for standard assets, all are classed as non-performing assets. Loans on which principal and interest payments are overdue by 90 days or longer are classed as sub-standard assets. Loans that have been sub-standard for 12 months are recategorized as doubtful assets. Regulations relating to asset classification and the provision of reserves were progressively tightened. The expansion of credit in recent years has been an important motive for the reinforcement of regulations.

16. Shareholdings in private sector banks must not exceed 10% of paid-up capital. Banks are not allowed to hold more than 5% of the shares of other banks.

17. In principle, the ceiling for lending to any one borrower is 15% of bank capital (20% for loans relating to infrastructure projects), and 40% of bank capital for borrowers in the same group (50% for loans relating to infrastructure projects). In some cases, banks need to increase their capital in order to provide large loans. There are also limits on lending to specific industries, such as the textile industry, lending to non-banking financial companies, and exposure to capital markets.

18. The average size of housing loans quadrupled between March 2000 and March 2005.

19. However, there was no real decline in credit, since the agricultural sector's share of GDP also fell.

20. "Financial inclusion" means the availability of diverse formal financial services, including banking, insurance and stock markets, to as many people as possible. There are over 40 million tiny unincorporated business enterprises in India. When estimating savings and investment statistics, Indian statisticians calculate the figures for the household sector as the residual amounts remaining after the subtraction of figures for the private corporate sector and public sector from total savings and investment. As a result, unincorporated business enterprises are included in the household sector. In addition to trends in the unincorporated business sector, the growth of physical savings in recent years has also been attributed to increased purchasing of real estate for residential and investment purposes as a result of factors that include the reduction of interest rates as a consequence of monetary easing, rising real estate prices, an increase in the number of high-net-worth households, and the expansion of housing finance (Ministry of Statistics and Programme Implementation, Government of India [2009]).

21. Government bonds have made up a steadily increasing percentage of qualifying bonds in recent years, and the ratio has risen from 66.6% in March 1991 to 99.1% in March 2009. This is attributable to a rapid increase in government bond issues, resulting in part from the development of the government bond market.

22. In general, banks in advanced economies invest a larger proportion of their total assets in government bonds than banks in developing economies.

23. For reference, the deposit-loan ratio has risen from 53.5% in March 2001 to 73.9% in March 2009.

24. Reserve Bank of India [2008b]

25. Under the SHG-Bank Linkage program, which was launched by NABARD in 1992, NGOs act as agents and perform a variety of tasks, including the organization of the poor into groups. Other micro-finance methods include the issuance of credit cards (known as "Kisan Credit Cards") and the provision of card loans, and the provision of indirect finance in the form of bank loans to companies specializing in micro-finance. Interest rates for these loans have been liberalized, and these types of lending are treated as priority sector lending. Private sector banks and foreign banks are actively moving into this area.

26. Previously small and medium enterprises (known as "small scale industries") were defined as enterprises whose capital investment in plant and machinery was below a specific level. Capital investment is also used as an indicator under the new definition, but enterprises are also divided according to their investment size into micro enterprises, small enterprises and medium enterprises, each subject to different regulations.

27. For example, the Standard Chartered Bank has established a separate company with numerous branches, with the aim of providing increased finance to small and medium enterprises.

28. Post offices and regional rural banks also hold many deposit accounts in rural areas. However, the size of these deposits is small, and the growth rate is low compared with bank deposits.

29. This was the first time that the phrase "financial inclusion" was used explicitly.

30. As of November 2007, there were 3.41 million insurance policies. This is equivalent to just 3.1 policies per 1,000 people.

31. Mckinsey & Company [2006]. However, from statistical viewpoint, gold purchases are included in consumption.

32. The following observations are based on Mckinsey & Company [2006].

33. The report of the Second Narasimham Committee on banking reform was published in April 1998 in response to the 1997 Asian currency crisis.

34. Other measures that need to be considered in order to stimulate competition include the removal of all restrictions on the establishment of branches, and further liberalization of restrictions on market entry (Planning Commission, Government of India[2009]).

35. The following analysis was produced with reference to Planning Commission, Government of India [2009].

36. Because the employees of public sector banks are public servants, remuneration is not always linked to performance. Other problems include the fact that employees who incur non-performing assets are likely to be held responsible by the government. As a result, there is little incentive to expand revenues. Public sector banks also tend to be conservative toward technological innovation.

37. We also need to recognize the growing importance of financial inclusion measures targeting the urban poor. Also, while the relatively large work forces of public sector banks contribute to the creation of employment opportunities, they are also linked to low labor productivity.

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