Non-performing Assets in Indian Banks

This Time It Is Different

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Growing non-performing assets is a recurrent problem in the Indian banking sector. Over the past two decades, there have been two such episodes when the banking sector was severely impaired by balance sheet problems. A comparative analysis of two banking crisis episodes—one in the late 1990s, and another that started in the aftermath of the 2008 Global Financial Crisis and is yet to be resolved—is presented. Taking note of the macroeconomic and banking environment preceding these episodes, and the degree and nature of crises, policy responses undertaken are discussed. Policy lessons are explored with suggestions for measures to adapt to a future balance sheet-related crisis in the banking sector such that the impact on the real economy is minimal.

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Banks play a crucial role in the Indian financial system. More than two-thirds of household savings are channelled through the banking system, which also provides more than 90% of the commercial credit in the country. In a bank-dominated economy, sustained impairment of the banking sector due to balance sheet problems creates a drag on real economic activity and can take the shape of an economic crisis. It is imperative to expeditiously resolve a banking sector crisis so that banks as the primary source of credit can start functioning normally again. In India, banking crisis is a recurrent phenomenon.[1] Since the liberalisation reforms of 1991, there have been two major banking crisis episodes, the first took place during 1997–2002, and the second, started in the aftermath of the 2008 global financial crisis and is yet to be resolved.[2]

In this paper, we compare and contrast the causes and magnitude of the banking crisis in both these periods, discuss how the previous crisis got resolved, and draw policy lessons for the ongoing crisis. Specifically, we compare the two crises on three dimensions: (i) the antecedents preceding the crisis, both macroeconomic and banking sector related, (ii) the degree and the nature of the crises, and (iii) the policy responses to the crises.

While some empirical work has been done to analyse the non-performing asset (NPA) problem of the Indian banking sector (Rajaraman et al 1999; Rajaraman and Vasishtha 2002; Mohan 2003; Ranjan and Dhal 2005; Reddy 2004; Das and Ghosh 2007, among others), to the best of our knowledge there is no comprehensive study that explores the two major NPA episodes in post-liberalisation India and analyses them in a comparative framework. Such a comparative analysis is important because it helps understand common patterns leading to recurrent bank balance sheet problems, as well as the differences across the two episodes. It is possible that the solution which may have worked last time may not be successful in reviving the health of the banking sector during the ongoing crisis.

The Indian economy has changed rapidly and significantly since the implementation of the liberalisation, deregulation and privatisation reforms of the early 1990s. The banking sector has also undergone remarkable changes over the last 25 years. When comparing crises across time, the main antecedents that need to be considered are the changes in the overall economy as well as in the banking sector at the time of the crises. The economic factors that are relevant here include the growth rate of gross domestic product (GDP) and the evolution over time of the bank credit to GDP ratio. Also important is the structure of banking as captured through factors such as the depth of banking penetration, share of bank credit in the overall capital formation, ownership structure of banks, level of capitalisation, and key aspects of banking regulation. These antecedents help to understand the causes of the crises and also facilitate a comparison of crises occurring at different points in time.

There are several ways to describe a banking crisis. The most common manifestations of stress in the banking sector are in the form of insolvency and illiquidity. In India, crises have mostly manifested in the form of high levels of NPAs and their impact on the capital adequacy levels of banks. Hence, the levels of NPAs, in absolute and in relation to the capital in the banking system, constitute a convenient metric to compare the degree of banking crises.[3]

Finally, for a comprehensive analysis of the two crisis episodes, it is important to compare the consequences of the crises, especially in terms of the policy responses undertaken. Given that banking is a regulated activity, it is important to assess how the regulator (in this case the Reserve Bank of India or RBI) responds to the crises. Resolution of a banking crisis is a collective effort where the regulator works closely with the stakeholders—the shareholders, management, customers, and employees of the banks. Regulatory response at the onset and during the course of a banking crisis is a critical determinant of how effectively and efficiently the crisis is resolved. In India, given the dominance of government-owned banks (public sector undertaking banks or PSU banks), the government as an owner and manager of these banks becomes a key stakeholder.

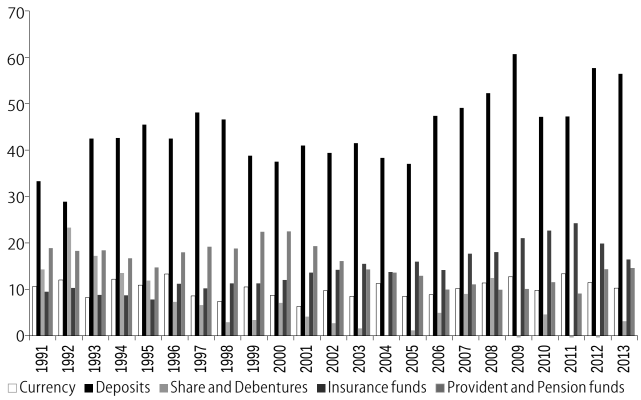
Banking Environment in India

Banking in India broadly consists of the commercial banks and the cooperative banks. Commercial banks in turn are classified into scheduled and non-scheduled commercial banks. The scheduled commercial banks (SCBs) are those banks that are included in the second schedule of the RBI Act, 1934 and satisfy certain conditions with regard to paid-up capital, reserves, etc. The SCBs include the public sector banks (nationalised banks, State Bank of India (SBI) and its subsidiaries), domestic private sector banks (old and new), foreign private sector banks and regional rural banks.[4]

Banks in India got nationalised in two phases, in 1969 and 1980 (14 largest private banks in 1969 and six more in 1980). After the second round of nationalisation, close to 90% of the sector (measured by the share of credit) was composed of government-owned banks and the rest of the sector was almost equally divided among a few foreign banks and some very small privately-owned banks (which were below the size threshold that the government had applied for nationalisation). Between 1980 and 1992, the PSU banks in India were completely government owned. The first bank to go public was the SBI in 1992–93.

Post liberalisation in 1991, the government appointed various committees to review the functioning of the Indian banking sector and recommend policy changes to make the banks more healthy, competitive and efficient. Two such expert committees were set up under the chairmanship of M Narasimham in 1991 and 1998. The recommendations made by these committees (popularly known as Narasimham Committee I and II), laid out the road map for banking sector reforms in post-liberalisation India. The committees recommended several micro-prudential measures, including adoption of risk-based capital standards, and uniform accounting practices for income recognition and provisioning against bad and doubtful debts. The objective was to benchmark against international best practices as embodied in the Basel I norms set by the Basel Committee on Banking Supervision (BCBS).

Figure 1: Distribution of Gross Financial Savings of Households



Source: Reserve Bank of India. Claims to the government are not shown.

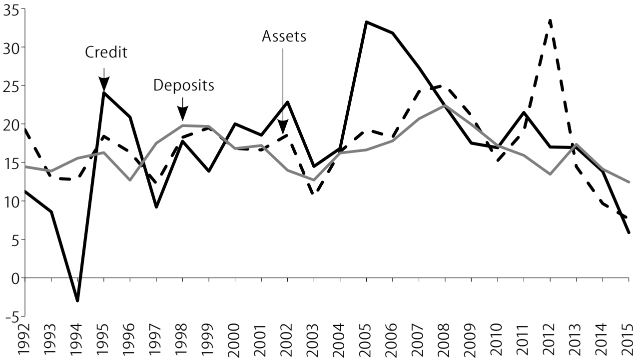
Following the recommendations of the Narasimham Committee I, Indian banks were subject to a capital to risk-weighted assets system in which banks had to achieve 8% capital to risk-(weighted) assets ratio (CRAR) by 1996 (Ghosh et al 2003). The CRAR measures the ratio of a bank's paid-up capital to its advances and other assets. Narasimham Committee II also made several recommendations about asset classification, increasing banks' CRAR to 10% by 2002, and setting up of Asset Reconstruction Companies (ARCs) that would take over the stressed assets from banks (Gopinath 2007). Since then, RBI has progressively introduced in a phased manner, prudential norms for income recognition, asset classification, and provisioning for the advances portfolio of banks.

The Narasimham Committee I also recommended issuance of new licences to private sector entities to set up banks. Consequently, RBI issued 11 licences for setting up new privately-owned banks. While most of these new private sector banks started functioning in the mid-1990s, their share of the banking business remained modest until 2000.

Other banking sector reforms based on the committee's recommendations included interest rate deregulation, allowing PSU banks to raise up to 49% of their equity in the capital market and gradual reduction of the statutory liquidity ratio (SLR) and cash reserve ratio (CRR) to improve banks' profitability.

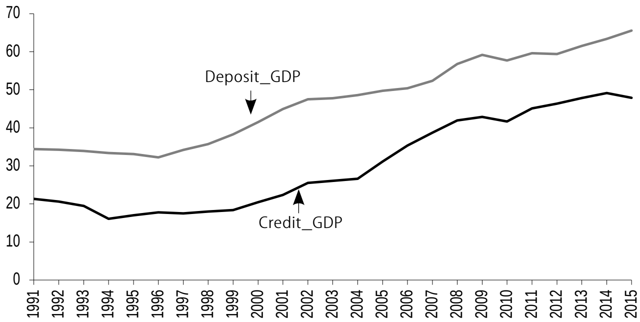
The banking sector has grown manifold in size since the time of bank nationalisation. From 1969 to 2015, the number of commercial banks went up from 89 to 152. The dependence on bank finance has also increased over the years. Figure 1 shows the distribution of gross financial savings of the household

Figure 2: Growth of the Indian Banking System



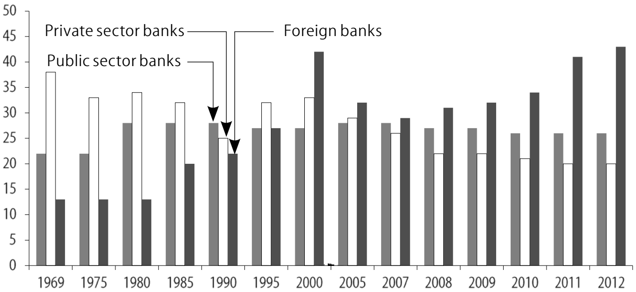
Source: Reserve Bank of India.

Figure 3: Share of Bank Deposit and Bank Credit in Gross Domestic Product



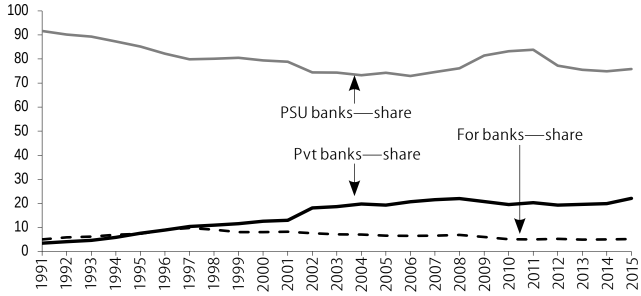
The ratios are of the banking sector as a whole.
Source: Reserve Bank of India.

Figure 4: Group-wise Number of Scheduled Commercial Banks in India



Source: Reserve Bank of India.

Figure 5: Evolving Shares of Bank Groups



Share of each bank group is measured as ratio of advances to total credit extended by the banking sector.
Source: Reserve Bank of India.

sector across different financial instruments. The share of household savings in bank deposits has gone up from around 30% in 1991 to close to 60% in 2013.

Domestic credit extended by banks to the private sector as a share of GDP has gone up from 24% in 1992 to 53% in 2015. The share of banks in corporate borrowing has remained high, and as of 2011 was close to 60% as highlighted in the Report of the Expert Committee to Revise and Strengthen the Monetary Policy Framework (RBI 2014). All these point to the fact that despite the move towards a market-based financial system since the 1990s, banks continue to play a very important role in the Indian economy.

Figure 2 shows the growth in the assets, credit and deposits of the banking system over time and Figure 3 shows the share of bank deposit and share of bank credit in GDP over time. As can be seen, the size and depth of the banking sector have gone up since the early 1990s. However in recent times, especially since 2013, bank credit as well as deposit growth rates have been declining. This is reflective of the stressed assets problem that banks have been facing over the last few years.

Figures 4 and 5 show the organisation of the banking sector according to types of banks by ownership. While the share of private sector banks has gone up over time, the actual number of private sector banks has decreased since 2000. This reflects that since early 2000s, few new banking licences have been given out by the RBI to private sector entities even as the economy has grown in size.

The predominant position of government-owned or public sector banks is a unique feature of Indian banking. India is the only large country other than China to have this feature.[5] Even today, 25 years post-liberalisation, the share of the PSU banks is as high as 70% of the entire banking sector. Government ownership in these banks amounts to 51% or higher.[6] This has two important implications.

First is that it puts a constraint on bank recapitalisation. There is always a tendency for a banking crisis in India to degenerate into a public finance or fiscal problem given that the government has to bear a lion's share of the burden to recapitalise the PSU banks. This is despite the fact that almost all these banks by now are listed entities. Second, this raises the question as to whether this is the best use of government's resources when theoretically most of these banks can raise capital from the market.

Dominance of the banking sector by government-owned entities also creates a regulatory issue. In India, the RBI regulates and supervises all banks. Given the high share of PSU banks this creates a peculiar principal–agent problem. The government appoints the governor and deputy governors of the RBI. They are responsible for regulating banks, majority of which are owned by the government.

The PSU banks in India are entities created by the Bank Nationalisation Act of 1969. Unlike their private sector peers, PSU banks in India are not governed by the Companies Act 1956. This means that the requirements on disclosures, board governance, etc, that arise from the Companies Act do not apply to the PSU banks. In other words, despite most of them being listed on exchanges, PSU banks are subject to less scrutiny than the private sector banks. In addition, given their ownership structure, they are pliable to be influenced by the government and political parties. These differences in ownership and legal dispensation create challenges for the recognition and resolution of banking crises.[7]

Government ownership also creates a perception of state guarantee among the depositors. As discussed in Acharya and Kulkarni (2011), in the aftermath of the 2008 global financial crisis, PSU banks in India outperformed their private sector peers despite being systemically more risky in the sense of being vulnerable to the crisis. The authors attribute this apparent stability of the PSU banks to their access to explicit and implicit government guarantee.

Conventional banking crisis is almost always associated with a run on the banks (Laeven and Valencia 2012). Given the design of the Indian banking sector, a run on PSU banks is rarely witnessed because of the guarantee provided by the government. According to the Bank Nationalisation Act of 1969 that governs the PSU banks, in the event of a bank failure the government will fulfil all the obligations. Hence, going by the conventional definition of a banking crisis, PSU banks in India are never in a crisis situation. Banking crisis in India needs to be understood in the context of capital adequacy and solvency problems rather than a liquidity shortage. The resolution of such a crisis can be more easily delayed owing to the government ownership of 70% of the banking system.

Conditions Preceding the Crises

To compare and contrast the two high bank NPA episodes, we describe the macroeconomic and institutional differences and similarities across both the periods.

The banking crisis that started around 1997 was preceded by a series of liberalisation, deregulation, and privatisation reforms initiated in 1991. When the economy was being opened up, the banking sector that had operated in a protected and regulated environment for decades, also needed to be reformed so that it could measure up to international standards. As mentioned in the preceding section, banking sector reforms in this era primarily consisted of deregulation of entry, strengthening bank supervision and implementation of prudential norms based on internationally accepted practices.

As a result of these reforms, new private banks started operating roughly from 1995 onward. Between 1990 and 1995, the number of private sector banks in the economy increased from 25 to 32. By 1997, their market share was roughly 6% (Table 1). During the mid-1990s there was a credit boom in the newly liberalised, privatised and deregulated economy. During 1992–96, bank credit to GDP ratio averaged at 18% and bank credit grew at close to 12% (Table 1).

The reforms of the early 1990s also triggered a big investment boom in the economy. It also paved the way for foreign firms to enter. This created competition for the existing domestic firms. Also when the licensing restrictions were removed, domestic firms rushed to expand capacity. But several of them were not able to adapt to the changing environment or withstand competition from other domestic firms and foreign entrants, and became economically unviable. This resulted in stress in the advances portfolio of the commercial banks.

Apart from private and PSU banks, there also existed financial intermediaries called development finance institutions (DFIs). DFIs such as the Industrial Development Bank of India (IDBI), Industrial Credit and Investment Corporation of India (ICICI) Bank, and Industrial Finance Corporation of India (IFCI) were critical players in the financial sector in the 1990s. They were term-lending institutions that extended long-term finance to the industrial sector. Although the DFIs were not deposit taking entities, they accounted for a substantial share of the overall commercial credit in the economy. Almost all the lending for new industrial projects (referred to as project finance) was done by the DFIs while commercial banks focused mostly on working capital finance.

The DFIs had access to low-cost capital from the RBI as well as from multilateral agencies. They also borrowed resources from banks through bonds that qualified for the latter's SLR requirements. With the initiation of macroeconomic and financial sector reforms in the 1990s, the operating environment for the DFIs underwent a significant change. Their access to low-cost capital was withdrawn which meant that DFIs had to raise capital in the market. They also faced stiff competition from the banks that started doing project financing, but at lower rates. This caused severe stress in the financial position of the DFIs and their NPAs accumulated to very high levels. By the late 1990s, they were no longer economically viable.

In the late 1990s, the Indian economy experienced a series of external shocks. The Asian financial crisis happened in 1997. This was followed by India conducting nuclear blasts in 1998. Then there was the collapse of the internet bubble in the United States (US) in 2000–01. In the immediate aftermath of the nuclear blasts of 1998, international sanctions were imposed on India. These events led to a general slowing down of the economy. The average real GDP growth rate between 1997 and 2002 slowed down to around 5% from an average of 7% during 1994–97.

In some sense, the banking crisis of 1997–2002 was an outcome of post-liberalisation structural changes in the economy

Table 1: Banking Environment at the Start of Each Crisis Episode (%)

Variables	Banking Crisis 1 (1997–2002)	Banking Crisis 2 (ongoing)
	Values at the Start of the Crisis	
Share of PSU banks	87	74
Share of private banks	6	20
Bank credit to GDP	18.2	31.6
Bank deposit to GDP	33	50
Bank credit growth	12.4	24.7

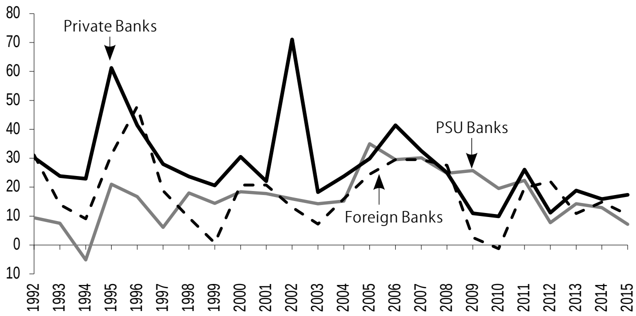
PSU banks denote the public sector banks, including SBI and its associates. Since the NPA problem was not critical in the foreign banks, they have been excluded from this table. Share of banks has been calculated as the ratio of advances of the bank group to total credit extended by the banking system. The data shown are averages for five years preceding each crisis. The five-year period preceding the first crisis is 1992–96, and for the second crisis it is 2003–07 (in order to avoid contaminating effects of the 2008 global financial crisis).
Source: Reserve Bank of India.

Table 2: Macroeconomic Environment in the Period Leading up to the Crises (%)

Variables	Banking Crisis 1 (1997–2002)	Banking Crisis 2 (ongoing)
	Averages for a Five Year Period Preceding the Crisis	
GDP growth rate	6.4	8.6
CPI inflation	9.2	5.1
10-year yields on government securities	13.4	7.3
Fiscal deficit/GDP	5.4	3.6

For the 1997–2002 crisis, the averages are computed over 1992–96. For the current banking crisis, the averages are computed over 2003–07 in order to isolate from the impact of the 2008 global financial crisis.
Source: Database on the Indian Economy, Reserve Bank of India and Economic Outlook, Centre for Monitoring Indian Economy.

Figure 6: Growth Rate of Credit Extended by Different Bank Groups



The figure shows year-on-year growth rate (in %) of advances made by the three groups of banks.
Source: Reserve Bank of India.

and was accentuated by a few events, both internal and external, which resulted in a cyclical slowdown of the real economy. The macroeconomic and banking sector conditions preceding the ongoing banking crisis were very different from the earlier episode. The period from 2003 to 2008 witnessed unprecedented economic growth, remarkable growth in exports and favourable macroeconomic conditions in the form of low inflation and low interest rates. India became a major beneficiary of benign global conditions over a sustained period of time.

The banking sector also witnessed structural changes in the 2000s. There was a remarkable increase in the volume of bank credit. Bank credit grew at a staggering rate of 25% during 2003–07. Figure 6 shows the growth rate of credit by bank groups over time. The credit boom in general was larger during the mid-2000s than the one in the 1990s, and the absolute magnitude of the subsequent NPA problem was also much bigger.

The composition of bank lending underwent a transformation. With the death of the DFIs under the burden of ever-growing NPAs, project financing became a part of commercial bank lending. The absence of a deep and liquid corporate bond market meant that providing credit for infrastructure became a part of banking business. This was especially the case for the PSU banks that were more susceptible to political pressures. This change in the composition of bank lending was problematic for three reasons.

Policy changes led to large-scale private sector participation in infrastructure development. From 2003 to 2007, there were major private entrants into sectors such as aviation, telecom, mobile telephony, etc, that were earlier under complete government ownership. There was a huge demand of credit from these industries but commercial banks had little expertise or experience in assessing these businesses. This resulted in potential mismatch of the skills required to do project lending and the capabilities at the PSU banks.

Second, this led to a fundamental asset-liability mismatch problem. Unlike DFIs which were funded by long-term bonds and hence could extend long-term credit to industrial projects, deposits are the main source of funding for commercial banks which tend to be more short-term in their maturity profile. Hence banks doing long-term project lending on the back of short-term assets are bound to result in maturity mismatches in the balance sheets.

Lending to infrastructure also exposed banks to risks they were not accustomed to. These risks emanated from delays and roadblocks due to policy issues, environmental approvals, and the ability of the promoters to bring in large amount of equity needed to complete the projects. It also complicated the government's role. On the one hand, the government was the owner and provider of capital to banks, and hence would be concerned about the credit risks that the PSU banks were undertaking. On the other hand, as a key participant in the economy's infrastructure development, the government bore crucial responsibility for the viability and creditworthiness of such projects.

In general, banks doing infrastructure lending is structurally problematic because of myriad reasons. Infrastructure financing contracts are susceptible to political problems. It is harder to predict long-term demand while doing these project assessments. Recovery of debt and resolution when the project fails is also much harder. For example, recovering a cement factory is typically easier than recovering a bridge or a road.

During the 2000s, the private sector banks grew rapidly both in number and size and gained market share. By the time the current banking crisis started, the structure of the banking sector had changed. The share of the PSU banks measured as share of total credit went down to 70%. But overall the banking sector has become larger in size, which means that even if the share of PSU banks has declined, the fiscal burden on the government in the event of a banking crisis is now greater in absolute terms.

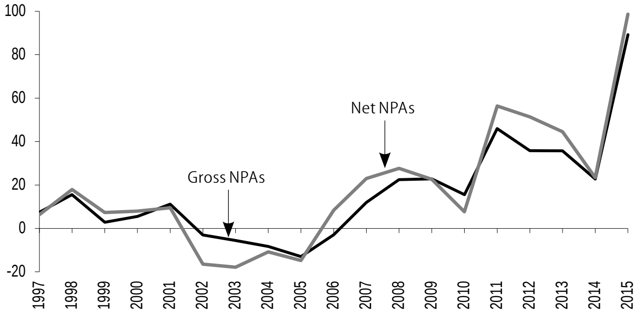
The roots of the present crisis can be traced to the excessive lending done by the banks during the credit and investment boom of 2003–08. In 2008, the world witnessed the global financial crisis. In the aftermath of the crisis, India experienced a dramatic slowdown in growth, a massive depreciation of the exchange rate, high inflation and a sustained period of monetary contraction during which RBI raised interest rates to deal with rising inflation. All of these wreaked havoc for the corporate sector and in turn for the banking sector.

In the immediate aftermath of the 2008 crisis, governments across countries undertook measures to support the financial sector, and broadly, to get out of a severe recession. Concerns about a potential economic slowdown prompted the Indian government to also take stimulus measures to support the economy. One such measure was to encourage banks, especially the PSU banks, to lend even more to the infrastructure sector, which by 2009 had already started showing stress due to a slowing economy, longer than anticipated delays to obtain clearances from the government, escalating costs, etc.

RBI as the banking regulator also announced schemes of restructuring which allowed banks to suspend norms of income recognition and restructure loans that could have become nonperforming. This made it easier for already overleveraged companies to borrow more. Between 2010 and 2012, the leverage of Indian companies increased further, while the underlying economic situation continued to worsen.

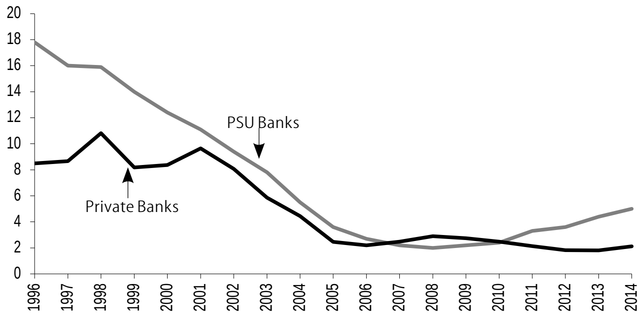
By 2011, the Indian economy entered into a business cycle recession and demand started slowing down (Pandey et al

Figure 7: Growth Rate of Non-performing Assets of Scheduled Commercial Banks



Data for net NPA for 2015–16 is not available.
Source: Database on the Indian Economy, Reserve Bank of India.

Figure 8: Evolution of Share of Gross NPAs in Gross Advances of Public and Private Sector Banks



Source: Database on the Indian Economy, Reserve Bank of India.

2016). The overall slowdown of the global economy and the weakening of external demand for Indian exports contributed to this. Partly the slowdown was also triggered by widespread corruption scandals specifically in the coal, and telecommunication sectors that shook the entire economy. Public exposure of the corruption scandals led to policy paralysis with the government backing away from any major structural reform.

From the dramatic growth years of the 2003–08 period, real GDP growth rate during 2011–13 slowed down to 6%. New projects failed to take off due to the lack of government approvals and projects that had received credit during the credit boom period got stalled owing to the general slowing down of the economy. The problem was especially acute in the infrastructure sector. This led to a fresh wave of NPAs, especially in sectors such as infrastructure, steel, metals, textiles, etc.

Degree and Nature of the Crises

By the late 1990s, many of the PSU banks had begun showing signs of weakness. The CRAR of most of these banks was either at or had gone below the safe level of 8%. In other words, many PSU banks were undercapitalised. The growing NPAs of these banks became a major drag on the financial system (Hanson and Kathuria 2002). By 1997, the ratio of gross NPAs to advances had reached 15%. The loan quality was worse in the term-lending DFIs (Hanson and Kathuria 2002).

From 1997 to 2002, gross NPAs amounted to 11% of gross advances and net NPAs accounted for 6% of net advances. The NPAs of the PSU banks were higher than that of the private sector banks. The share of gross NPAs in the advances made by PSU banks was close to 12% and the same for private sector banks was roughly 8%. Figure 7 shows the year-on-year growth rate of NPAs of commercial banks from 1997 to 2015 and Figure 8 shows the share of NPAs in the advances of different bank-groups over time. While the NPA share was much larger in the first crisis episode, the growth rate of NPAs is significantly higher in the present crisis.

In case of the ongoing crisis, the NPA problem started assuming serious proportions roughly from 2013 onwards but the NPAs had been growing from 2010. To some extent, the restructuring schemes introduced by the RBI helped the banks to suppress the extent of their balance sheet stress in the aftermath of the 2008 global financial crisis. In April 2015, RBI introduced the Asset Quality Review (AQR), which forced the banks to recognise the stressed assets on their books and provision for them. This was applicable to private and PSU banks alike. The AQR resulted in a sharp decline in the share prices of several banks. By September 2015, nine out of 10 stressed banks were government owned.

Profitability of the banking sector in general has been declining since 2012 (Table 3).

Table 3: Performance of Scheduled Commercial Banks (%)

Financial Year	Returns on Assets (RoA)	Return on Equities (RoE)
2008–09	1.1	15.4
2009–10	1.0	14.3
2010–11	1.1	14.9
2011–12	1.0	14.6
2012–13	1.0	13.8
2013–14	0.8	9.5
2014–15	0.8	9.3
2015–16	0.3	4.8

Source: Database on the Indian Economy, Reserve Bank of India and RBI Financial Stability Reports (June and December 2016).

In 2015, the share of gross NPAs in advances of the overall banking sector stood at 7.5%. Although in percentage terms this was smaller than in the previous episode, the absolute size of the problem was bigger given that the banking system has grown significantly in size since the early 2000s.

The continuous erosion of bank capital to provision for NPAs has made it increasingly difficult for the banks to make new advances. As a result, corporate credit has been stagnating over the past few years. Year-on-year growth rate of bank credit has declined sharply from 13.8% in 2014 to 5.8% in 2015.

Policy Responses to the Crises

The policy responses to both the crisis episodes need to be reviewed in the context of the broader macroeconomic and banking environment. A multiplicity of factors aided the resolution of the banking crisis of the late 1990s.

The DFIs were merged with the commercial banks (for example, ICICI and IDBI), or were allowed to stagnate and become less relevant (for example, IFCI). The extent of the problem was relatively smaller in commercial banks. These were partly rescued through capital injection by the government before being allowed to raise capital in the market. The relatively smaller size of the overall banking sector compared to recent times, as well as the size of the stressed asset problem did not impose a significant fiscal pressure on the government. Furthermore, the capitalisation requirements of the banks were much less compared to the current crisis. Despite the NPAs on the banks' books, the erosion of bank capital in absolute terms was less severe. Following the recommendations of the Verma Committee appointed by the RBI in 1997, several of the weaker

PSU banks were also restructured (Indian Bank, United Commercial [UCO] Bank and United Bank).

For the major part, the economy grew out of the crisis episode and no significant policy dispensation was required per se. India was a major beneficiary of information technology (IT) and subsequent outsourcing boom. Exports of IT services registered phenomenal growth in the early 2000s and contributed to the overall economic recovery. The remarkable pick-up in GDP growth from 2003 onwards coupled with the low inflation and low interest rate environment proved to be a blessing for the banking sector. The credit boom that started during this period dramatically expanded the banks' books. As the economy recovered the addition of fresh NPAs also slowed down.

Moreover in the early 2000s, there was a secular decline in interest rates when monetary policy got rejigged. Ten-year government bond yields went down sharply from 2001 onwards. While between 1996 and 2000, the bond yields averaged at 12.14%, between 2001 and 2003, the average was down to 6.9%. This gave the banks substantial capital gains on their SLR holdings. The capital gain almost acted as a natural bailout for the stressed banks.

Significant investments were made in the infrastructure and other sectors such as telecommunications, information technology, roads and highways, etc. This unleashed massive productivity gains in the real economy. The firms, as a result, were in a strong position, and the addition of fresh NPAs slowed down.

In other words, the banking sector got bailed out of the crisis through rapid and dramatic improvements in the macroeconomic environment, which itself was an outcome of very specific domestic and global conditions.

In comparison, the current banking crisis is a much more difficult one to resolve, given the magnitude of the problem, as well as the macroeconomic environment in which it originated. The V-shaped growth recovery of the early 2000s, including the export and investment boom, is unlikely to happen this time around. The economic slowdown that began in 2011 continues to be a cause of concern, and the growth momentum is much slower than what it was in early 2000s.

While real GDP growth rate over 2012–16 has averaged at about 6% to 7%, several questions have been raised about the official estimates. Firm level data shows that economic activity has been sluggish since 2011, and has not yet recovered. Exports as well as private sector investment have been declining since 2013.

The global economic outlook since 2012 has also been very different from what it was during the 2003–08 period. Developed economies such as the US, United Kingdom, Eurozone countries, Japan, and the like, have been struggling to recover from a deep-seated recession that began with the 2008 global financial crisis. This is also one reason why the export outlook for the Indian economy continues to remain bleak unlike the mid-2000s.

In addition to these, the Indian economy experienced a massive monetary contraction in November 2016 when the legal tender status of high denomination currency notes was cancelled by the government and the RBI resulting in 86% of the currency in circulation being withdrawn. In 2016–17, this is likely to act as a further drag on the economy, and maybe even add to the NPA woes of an already struggling banking sector.

All these factors imply that unlike the last episode, the banking sector will not be able to grow out of the crisis this time, and reform measures would be needed.

Several policy actions have already been implemented. Balance sheet troubles for banks started as early as 2011–12. When the first signs of trouble surfaced, the RBI as the banking regulator took recourse to regulatory forbearance. For example, the RBI initiated several restructuring programmes (such as Corporate Debt Restructuring, Strategic Debt Restructuring, 5/25 scheme, Joint Lenders Forum, etc) to enable the banks to resolve the stressed asset problem. However, these programmes helped the banks to hide the actual extent of the stress on their balance sheets instead of solving the underlying problems. The continuation of the stressed asset problem has worsened the availability of credit for the real economy as can be seen from Figure 6.

The government initiated the Indradhanush programme in August 2015 to revamp the PSU banks. It is a seven-pronged plan, which also includes recapitalisation or infusion of capital into the banks. According to the estimates of the government, the total amount of extra capital required by the PSU banks till 2019 is around ₹1,80,000 crore.[8] Out of this, the government plans to infuse ₹70,000 crore over the next four years from budgetary allocations. Of this amount, 40% will be allocated to the six biggest PSU banks, 40% to banks that require support, and 20% to banks based on their performance (Kumar et al 2016). The planned allocations are shown in Table 4.

Table 4: Budgetary Allocations for PSU Bank Recapitalisation

Year	Budgetary Allocation (₹ crore)
2015–16	25,000
2016–17	25,000
2017–18	10,000
2018–19	10,000
Total	70,000

Source: Ministry of Finance.

The remaining ₹1,10,000 crore will have to be raised by the PSU banks from the capital market in order to meet the capital adequacy norm as per the Basel III standards.[9]

There has been considerable debate in the public policy domain about the pros and cons of using the resources of the government, to recapitalise banks. Committees such as the Narasimham Committee II (1998) and the P J Nayak Committee (set up under the chairmanship of P J Nayak and report submitted in 2014), for example, were against such capital infusion operations. Recapitalisation imposes a significant fiscal cost on the government.

Another action taken by the government under the Indradhanush programme has been to set up a Banks Board Bureau (BBB) to facilitate the appointment of top officials at the PSU banks. However, the progress made by the BBB has been slow since it began functioning in April 2016. In general the Indradhanush programme, so far the only step taken by the government to deal with the ongoing banking crisis, does not propose any far-reaching structural reform that would help tackle the balance sheet problems faced by the banks.

While in 2015, the RBI started the AQR to force banks to recognise their NPAs and provision accordingly, it may be argued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that the AQR should have been done much earlier in order to prevent the accumulation of losses in the banking system over multiple years.

The steps adopted so far to address the ongoing bank balance sheet problem have arguably been small fixes and incremental changes. The need of the hour is a transformative reform initiative so that the next time around the NPA problem of banks does not become as big.

Lessons and Policy Recommendations

When it comes to stressed asset problem of banks, the speed of resolution is crucial. The sooner the crisis is resolved and the health of the banks is revived, the better it is for the overall economy. Continued regulatory forbearance only festers and lengthens the problem and delays resolution.

The ongoing problem needs to be resolved using a three-pronged approach which involves recognition, recapitalisation and resolution. The banks have already done a fair bit of asset recognition as part of the AQR. This needs to be continued till all the stressed assets have been recognised and provided for. Second, to get the banks to lend again which is the most important requirement at present, some amount of capital has to be infused. The problem is more acute at the PSU banks. Unlike the private sector banks, they cannot raise significant amounts of capital in the market without diluting the government's share below 51%. So either the government has to decide to lower its stake in these banks or fiscal costs have to be borne to injected money into these banks to help them start lending again, some of which is already happening as part of the Indradhanush programme. However, recapitalisation by the government not only hampers fiscal prudence, but also creates a potential moral hazard issue for the banks who have less incentive then to set their own houses in order.

As far as resolution is concerned, a big step has been taken in the right direction with the enactment and implementation of the Insolvency and Bankruptcy Code (IBC), 2016. The new law is designed to facilitate quick resolution of stressed corporate assets in a time-bound manner unlike the previous fragmented legal framework under which it would take many years for banks to recover their debt from insolvent and bankrupt firms. The banks must now use the platform offered by IBC to recover their dues and resolve the underlying stressed assets. Further, institutional development in this field is needed in the form of a stressed asset management industry run by private professionals. In the wake of the late 1990s crisis, Asset Reconstruction Companies (ARCs) were set up to take the bad debt off the banks' books. However, over the years, regulatory problems have hindered the development of ARCs, and today, their effectiveness as stressed asset management entities remains questionable.

Going forward, there are specific roles to be played by the regulator, the government, and the banks themselves, to ensure that the next time banks face NPA problem, it can be contained and the damage can be minimised.

RBI as the banking sector regulator can adopt pre-emptory measures such that if bank credit goes beyond a specific range, countercyclical steps such as imposing capital requirements and sectoral caps can be adopted if some sectors are overheated. This has the risk of potentially lowering growth but this risk could be worth taking for long-term benefits. The Basel Committee on Banking Supervision has also made recommendations for countercyclical capital buffers. It is also imperative to develop alternative forms of financing such as the corporate bond market to take the pressure off the banking sector as a whole.

In general, comprehensive reforms of banking regulation and supervision are required. Banking regulation needs to be more proactive and needs to create incentives for the banks to recognise the losses as early as possible so that NPAs do not keep accumulating on the bank balance sheets.

The government as a major stakeholder for PSU banks needs to consider whether it is worthwhile maintaining control and ownership of 70% of the banking sector and bearing the concomitant fiscal costs whenever these banks are in trouble. In an emerging economy like India, perhaps there is a specific need for PSU banks to channelise savings for development programmes but maybe the time has now come for the government to consider reducing its shares to a minority. Also consolidation of several PSU banks may facilitate governance reforms and improve oversight.[10] For instance, it is easier for the BBB to find directors for 10 banks as opposed to finding directors for say, 20 PSU banks.

In recent times, the government has initiated the process of merger of five subsidiaries of the SBI (State Bank of Bikaner and Jaipur, State Bank of Travancore, State Bank of Patiala, State Bank of Hyderabad and the new Bharatiya Mahila Bank) with the parent bank. This merger was possibly motivated by the desire to increase operational efficiencies in the SBI group. One may argue that this consolidation was relatively easy to implement from an administrative, legal, and political standpoint given that these entities were already working as one bank in terms of operations under the parent bank. While this signals a welcome beginning, it needs to be followed up by more such mergers, especially of weaker banks with stronger ones in order to reduce fragmentation of the banking system, foster efficiency, and help the government as majority stakeholder to improve the governance of these banks.

Finally, the banks themselves need to tighten their mechanisms for scrutinising loan applications, especially when the NPAs start increasing and when there is overheating in the economy or a credit boom.

Conclusions

Comparing the two high bank NPA episodes in post-liberalisation India throws interesting insights into the reasons behind the occurrence of these crises, their implications, and approaches to resolve them.

Growing out of the problem appears to be the most efficient and quickest approach to resolve a banking crisis. However, this approach is feasible only under three conditions: (i) the crisis is not too deep, that is, the extent of impairment of the bank balance sheets and consequent capitalisation is within reasonable limits, (ii) the source of the impairment is cyclical macroeconomic factors, and (iii) the macroeconomic recovery in the aftermath of the crisis is a sharp one. The Indian economy witnessed these conditions from 2003 to 2008 that helped resolve the banking crisis of the late 1990s. It is important to note that the extraordinarily sharp economic recovery is an exception rather than a rule, especially after a banking crisis. Indeed, in a bank-centric economy like India, it is more reasonable to expect slower than normal recovery after a banking crisis, similar to what is happening at present.

Another key insight is that time is of essence in resolution. Early recognition and action on resolution mitigates the damaging impact of a crisis. In order for banks to take such early action, strong governance and proactive banking regulation is critical. This will ensure that the subsequent NPA resolution has minimal effect on bank's capital.

A third factor that aids quicker and more efficient resolution is a strong legal framework for resolution. In this regard, a big reform has been the enactment of the IBC in India. However, there are several weaknesses in its implementation. Only time can tell to what extent the new law will be able to better resolve stressed assets in the banking sector within a shorter period of time.

Finally, regulatory forbearance does not facilitate resolution and can actually worsen the banking crisis by providing incentives to the banks to defer NPA recognition and delay action. Restructuring of a loan should be the commercial decision of a bank and should not automatically qualify for regulatory concessions in terms of deferment of recognition of NPAs.

Economies move in cycles of upturns and downturns and banks being a predominant source of credit will respond to the cyclical fluctuations. If there is a very high demand for credit during boom and banks lend indiscriminately, it is possible that when the economy enters into a recession, banks will face an asset quality deterioration and NPAs will go up. NPAs are a part and parcel of banking activity. However, when the NPA problem persists for years without getting recognised or resolved and starts hampering normal bank lending, it takes the shape of an economic crisis and becomes difficult to get out of. In India, time and again, this problem rears its head and the current crisis has been lingering on for years. Unless NPAs are dealt with quickly and efficiently, profitability and liquidity of banks can get severely affected and resource allocation in the economy becomes inefficient. Given the predominance of government-owned banks in India, any banking crisis invariably ends up affecting the public finances, which is far from desirable.

Banks in India will perhaps remain a crucial conduit for channelising capital from the savers to the investors in the foreseeable future. It is important that the health of the banking sector is restored urgently, and future NPA problems are prevented from taking on the shape of a crisis that can potentially jeopardise real economic activity. RBI as the banking regulator, government as a major stakeholder, and the banks themselves must step up to ensure that the current crisis is resolved rapidly, and the flow of the credit to the real sector in the future is not disrupted so much so that public finances have to be involved to rescue the banks. This calls for building adequate regulatory capacity, comprehensive reforms in bank regulation and supervision, a strong legal framework for resolution, and policy thinking on the merits of government ownership of banks.

NOTES

1 In the literature on banking crisis, Laeven and Valencia (2012) define a systemic banking crisis as one which involves bank runs, significant losses in the banking system, and/or bank liquidations, along with banking policy intervention measures. This implicitly assumes a private bank dominated system where bank runs is a possibility. In India, government ownership of close to 70% of the banking sector acts as a guarantee, as a result of which, conventional bank runs do not occur. Moreover, in absence of well-defined insolvency and bankruptcy laws pertaining to the financial sector, bank restructurings and liquidations have been a rare event. In terms of intervention measures, government has from time to time recapitalised the public sector banks, but because these are not associated with bank runs, the conventional framework of banking crisis does not capture these episodes, as can be seen from Laeven and Valencia (2012). In absence of a well-functioning stressed asset management industry and an effective corporate insolvency and bankruptcy resolution framework (until the enactment of the Insolvency and Bankruptcy Code, 2016), purchase of stressed assets has also not been widespread in the Indian banking sector. Thus, going by the internationally applied definition, Indian banking sector has never experienced a crisis. However, time and again Indian banks have suffered significant losses owing to a sharp increase in NPAs, which in turn has hampered credit supply to the real economy.

2 According to Laeven and Valencia (2012), the only banking crisis in India in the post-liberalisation period was in 1993. However, they do not go into the details of the crisis. This crisis was not triggered by any specific event. It was the result of prudential norms being adopted for the first time by the RBI which meant that banks in India started doing income recognition, asset classification, and NPA provisioning in line with the international Basel standards, for the first time. This exercise revealed a huge amount of NPAs on the books of PSU banks. The share of gross NPAs in total advances was as high as 24%. Till 1992, 26 out of 27 PSU banks reported profits. In 1992–93, the profitability of the entire group of PSU banks turned negative, and remained so in 1993–94. The stress in the asset portfolio of these banks started coming out in the open during the 1993–95 period.

3 It may be worthwhile to note here that the amount of NPAs reported by the banks may not be indicative of the actual extent of stress on their balance sheets. This is because banks are adept at hiding NPAs through "evergreening" or creative accounting, which means that the official NPAs reported by them, may not be an accurate reflection of the stress in their portfolio (Banerjee et al 2004). Hence, it may not be a correct characterisation to say that stress in one crisis episode was greater than the other because the amount of NPAs was higher. It is possible that the stress is greater during the ongoing banking crisis, for example, but banks have gotten better at hiding it.

4 The old private sector banks are those that were operational before the Bank Nationalisation Act of 1969. Owing to their small size and regional operations, they did not get nationalised. After the nationalisation of banks in 1969, the entry of private sector banks was not allowed until January 1993, when the barriers to entry for private sector banks were removed. The new private sector banks were set up when the Banking Regulation Act was amended in 1993 in the wake of structural reforms. Entry of foreign banks was also liberalised in the post-reform period. The non-scheduled banks are those that are not included in the second schedule of the RBI Act, 1934 on account of the failure to comply with the minimum requirements for being scheduled. As of March 2015, there were only four non-SCBs.

5 According to the Global Financial Development Report (2013), state-owned banks account for less than 10% of the banking system assets in developed economies and double that share in developing economies. Even in the developing world, share of state-owned banks in the total assets of the banking system has declined considerably over time, from an average of 67% in 1970 to 22% in 2009. This has primarily been due to the poor financial performance of state-owned banks. However, as noted by the report, in some countries, including China and India, the asset market share of the state-owned banks exceeded half of the assets of the entire banking system in 2010. The only other countries mentioned by the report in this category are Algeria, Belarus, the Arab Republic of Egypt, and the Syrian Arab Republic.

6 Since the early 2000s, public sector banks have been listed on stock exchanges which implies that though the government owns a majority stake of 51% in these banks, private capital has also been infused and these banks are now subject to market discipline, but less than the private sector banks who are primarily dependent on the capital market for their equity.

7 The P J Nayak Committee appointed by the government to improve the governance of PSU banks, recommended in 2014 that the Bank Nationalisation Act as well as SBI Act be repealed and that the PSU banks be registered under the Companies Act, 2013 to ensure better board governance of these banks.

8 This estimate is based on the assumption of a credit growth rate of 12% for 2015–16 and 12% to 15% for the next three years, depending on the size of the banks and their growth ability.

9 The Basel Committee on Banking Supervision (BCBS) released the Basel III in December 2010. Basel III retains the minimum capital adequacy ratio of 8%, increases the tier I capital ratio to 6%, and introduces concepts of countercyclical capital buffer (CCB) and capital conversion buffer. CCB may be in the range of 0–2.5% of risk weighted assets of banks which could be imposed on banks during periods of excess credit growth. Basel III also introduces a 2.5% additional capital cushion buffer over and above the minimum 8% (Jayadev 2013).

10 Bank consolidation (through mergers, amalgamation, restructuring, etc) has happened in India multiple times over the past several decades, both due to weak financials of the banks being merged as well as mergers between healthy banks driven by commercial considerations (Leeladhar 2008). In the post-reform period, most of the mergers have been that of relatively smaller banks (RBI 2006–08).

REFERENCES

Acharya, V and N Kulkarni (2011): "What Saved the Indian Banking System: State Ownership or State Guarantees?," *World Economy*, Vol 35, No 1, pp 19–31.

Banerjee, A, S Cole and E Duflo (2004): "Banking Reform in India," *Indian Policy Forum*, Vol 1, No 1, pp 277–332.

Das, A and S Ghosh (2007): "Determinants of Credit Risk in Indian State-owned Banks: An Empirical Investigation," *Economic Issues Journal Articles*, Vol 12, No 2, pp 27–46.

Ghosh, S, D M Nachane, A Narain and S Sahoo (2003): "Capital Requirements and Bank Behaviour: An Empirical Analysis of Indian Public Sector Banks," *Journal of International Development*, Vol 15, pp 145–56.

Global Financial Development Report (2013): "Rethinking the Role of the State in Finance," World Bank, Washington DC.

Gopinath, S (2007): "Special Features of Financial Sector Reforms in India," Inaugural address delivered at the 18th Annual National Conference of Forex Association of India, 6 April, Bangkok.

Hanson, J A and S Kathuria (2002): "India's Financial System: The Challenges of Reform," World Bank Working Paper, Washington DC: World Bank.

Jayadev, M (2013): "Basel III implementation: Issues and Challenges for Indian Banks," Indian Institute of Management, *Bangalore Management Review*, Vol 25, No 2, pp 115–30.

Kumar, R, G Krishna and S Bhardwaj (2016): "Indradhanush: Banking Sector Reforms," Centre for Policy Research, January.

Laeven, L and F Valencia (2012): "Systemic Banking Crises Database: An Update," IMF Working Paper 163, International Monetary Fund, June.

Leeladhar, V (2008): "Consolidation in the Indian Financial Sector," special address at the International Banking and Finance Conference, organised by the Indian Merchants' Chamber, Mumbai.

Mohan, R (2003): "Transforming Indian Banking: In Search of a Better Tomorrow," Reserve Bank of India Speeches, Reserve Bank of India Bulletin, January.

Pandey, R, I Patnaik and A Shah (2016): "Dating Business Cycles in India," NIPFP Working Paper 175, National Institute of Public Finance and Policy, September.

Rajaraman, I and G Vasishtha (2002): "Non-performing Loans of PSU Banks: Some Panel Results," *Economic & Political Weekly*, Vol 37, No 5, pp 429–33.

Rajaraman I, S Bhaumik and N Bhatia (1999): "NPA Variations across Indian Commercial Banks: Some Findings," *Economic & Political Weekly*, Vol 34, Nos 3–4, pp 161–67.

Ranjan, R and S Dhal (2005): "Non-Performing Loans and Terms of Credit of Public Sector Banks in India: An Empirical Assessment," RBI Occasional Papers, Researve Bank of India, Vol 24, No 3.

Reddy, Y V (2004): "Credit Policy, Systems, and Culture," Reserve Bank of India Bulletin, March.

RBI (2006–08): "Special Edition of the Report on Currency and Finance," Reserve Bank of India, Volumes IV and V.

— (2014): "Report of the Expert Committee to Revise and Strengthen the Monetary Policy Framework," Reserve Bank of India.