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The Roller Coaster Ride of Non-performing Assets in Indian Banking

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The Roller Coaster Ride of Non-performing Assets in Indian Banking*

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Abstract

This paper narrates the story of the roller coaster ride of non-performing assets (NPA) of the Indian banking sector. Three distinct phases of intertemporal broad trends can be discerned in NPAs of the Indian banking sector. First, since the initiation of financial sector reforms till about the beginning of the North Atlantic Financial Crisis (NAFC), NPAs showed a consistent downward trajectory. Second, during 2008-09 through to 2017-18, they showed a distinct spurt. Third, since 2017-18, NPAs have been on a downward trend till 2019-20, until the economic disruptions caused by Covid 19. In contrast to the popular practice of treating the second phase of rising NPAs as emanating exclusively from governance issues in public sector banks (PSBs), four factors have been identified: (a) falling commodity prices; (b) regulatory forbearance; (c) initial exuberance in infrastructure projects punctured by a downward phase in business cycles (leading to substantial debt accumulation of select big corporates); and (d) governance failure in select PSBs. Moving forward, while the pandemic and some of the associated policy measures could reverse the recent downward trends in NPAs temporarily, more durable policy initiatives like bankruptcy reforms are expected to make significant positive changes in the NPA situation of Indian banks.

Introduction

Unlike a real sector corporate firm, a commercial bank is a highly leveraged business entity. Being primarily funded from deposits, the extent of leverage in a bank works in opposing ways – on the one hand, higher leverage makes the bank more profitable, and on the other it makes the bank more vulnerable to bankruptcy risks. Impairment of, say, 10 percent of a bank's assets can significantly erode its net worth. Thus, the quality of a bank's assets (comprising primarily of loans and investments) is of utmost importance from the standpoint of the health of the bank and of the aggregate financial sector. Non-performing assets of banks reflect the quality of their respective loan portfolios, and of the banking sector in the aggregate, thereby constituting one of the critical indicators of financial stability.

Thus, high leverage is crucial to bank's business. In undertaking its core functions, a bank offers intermediary and liquidity services, in which one of its key activities is its capacity to do maturity transformation. Banks often invest in longer-term assets that are funded by short-term liabilities. Thus, they are exposed to various risks – credit, operational, market, and liquidity. In an economy where the banking sector is dominated by public sector banks, credit risks are of critical significance: these risks often get transformed into fiscal risks. Moreover, if key segments of the portfolio of a bank turn bad, its high leverage can lead to effective insolvency or bankruptcy. Finally, in the case of interlinked lending, the presence of non-performing assets (NPAs) in a bank's portfolio can have economy-wide repercussions.

While the health code system of classifying banks' assets was introduced by the RBI as early as November 1985, the issue of NPAs came into the limelight after the publication of the Narasimham Committee Report- I (1991).[1] The Committee noted that the classification of assets according to the existing health code was not in accordance with international standards. Accordingly, a prudential system which included the recognition of income, classification of assets, and provisioning for bad debts was introduced in financial year 1992-93 (RBI, 1993). It revealed that the NPA position of commercial banks in the early 1990s was actually far worse than it is today: as on March 31, 1994, the gross NPA-assets ratio of all public sector banks was as high as 25 percent, compared with 7.5 percent at the end of March 2021. Improvements in NPAs had clearly taken place at a slow and steady pace starting in the mid-1990s.

The inter-temporal trajectory of NPAs in Indian banking during 1992-2018 followed a distinct three-phase pattern. Data on the extent of NPAs in Indian banking are meagre before the mid-1990s, as there was no appropriate classifications of NPAs at the time. Following the economic reform measures of the 1990s, in which financial sector reforms occupied a key position, there was a significant improvement in the extent of NPAs in Indian banking. This falling trend in NPAs continued till around 2009, after the advent of the North-Atlantic financial crisis (NAFC) of 2008.[2] NPAs started rising after that, initially at a slow pace (perhaps reflecting several measures of regulatory forbearance), and at a faster rate from 2014 till about 2018. Various factors were responsible for the unabated rise in NPAs during 2010-18, prominent among which were: (a) the fall in commodity prices; (b) prolonged regulatory forbearance; (c) failure of public-private partnership projects in some key infrastructure areas; and (d) governance issues in commercial banks

1 RBI Circular No. DBOD.No.Fol.BC.136/C.249-85 of November 7, 1985, classified the categories as: 1) Satisfactory; 2) Irregular; 3) Sick but viable; 4) Sick: nonviable/sticky; 5) Advances recalled; 6) Suit filed accounts; 7) Decreed debts; and 8) Bad and doubtful debts. Under the health code system, the RBI classified the problem loans of each bank into three categories: i) advances classified as bad and doubtful by the bank (Health Code No.8); (ii) advances where suits were filed/ decrees obtained (Health Codes No.6 and 7); and (iii) advances with major undesirable features (Health Codes No.4 and 5); see Rajeev and Mahesh (2010) for details.

2 Following Mohan (2011), we use *the term North Atlantic Financial Crisis (NAFC), in contrast to the more widespread usage of 'global financial crisis (GFC)'. This is conscious, and prompted by (a) the origin of the crisis, and (b) its uneven spread across the globe beyond the North Atlantic.*

(Mohan & Ray, 2019). Later, from 2018, coinciding with the initiation of progressive bankruptcy measures, the trend in NPAs improved once again, until the Covid 19 pandemic hit in 2020.

A popular narrative about the sharp rise in NPAs during 2010-18 is that banks suffered due to bad governance in public sector banks (PSBs). However, the issue with this narrative is that it is not consistent with the sharp fall of NPAs recorded by the same banks during the period 1996-2010. How could such an improvement take place in the NPAs of PSBs over a decade and a half? What changed in the governance of PSBs over that period? Did the governance of PSBs change drastically after around 2010? Was it accidental that PSBs did well for so many years?

It is here that the role of two specific factors needs to be highlighted. First, there was a significant expansion of large corporate sector lending after the late 2000s, including for lumpy infrastructure projects under public-private-partnerships (PPPs) as a matter of public policy. Such lending could have led to unforeseen problems with the slowing down of the economy and fall in some key commodity prices. Second, the phenomenon of regulatory forbearance from 2008, in the wake of the North Atlantic Financial Crisis (NAFC), camouflaged the real dimension of the problem and could have engendered a false sense of complacency and the related low measurement of NPAs. Later, credit growth started slowing down along with a deceleration of the GDP growth rate.

Against this context, the present paper looks into the intertemporal behaviour of NPAs over the period, 1992-2020.[3] For expository convenience, the structure of the paper is as follows. First introduces the paper, while second discusses the broad trends in NPAs over time and identifies the twists and turns. There is a short discussion of the improving trends in NPAs during 1992-93 to 2008-09; followed by enumerating the major reasons for the emergence of NPAs in Indian banking during 2008-09 to 2017-18. The authors discuss the recent improving...., and conclude with the way ahead.

[3] For the bulk of our analysis, we consciously avoid 2020-21 because of Covid 19-related complications.

Broad Trends in the NPAs of Indian Banks, 1992-2018

Some Definitional Issues

At the level of popular folklore, an NPA is a bad loan. Thus, if a loan is not repaid on time, it becomes a bad loan; hence it needs to be written off, and a provision has to be made in the bank's book of account. In India, recognition of such bad loans was largely opaque before the 1990s. The Committee on the Financial System (chairperson: M. Narasimham), which laid down the blueprint for financial sector reforms, acknowledged the need to recognise NPAs in the banking sector (Narasimham Committee I; RBI, 1992). In its report, assets were classified into four categories: (a)standard, (b) sub-standard, (c) doubtful, and (d) loss assets, and general provisions had to be created for each category (under b, c, and d) to the extent of 10 percent, 20 percent to 50 percent, and 100 percent, respectively, of the total outstanding security shortfall in these categories.

The crucial question is then: how long can a bank wait to classify a loan as a bad loan? In terms of regulatory classification, the notion of an NPA has undergone a fair bit of evolution.[4] In particular, a 'non-performing asset' (NPA) used to be defined as a credit facility in respect of which the interest and/or instalment of principal had remained 'past due' for a specified period of time. The specified period was reduced in a phased manner over the 1990s (Table 1).

Table 1: Evolution of the Definition of NPAs

Year (ending March 31)	Specified Period for 'Past Due'
1993	Four quarters
1994	Three quarters
1995 onwards	Two quarters

Source: Reserve Bank of India

Due to improvements in the recovery climate of payment and settlement systems and up-grading of technology in the banking system, the concept of 'past due' was dispensed with from March 31, 2001. Accordingly, from April 2001, a non-performing Asset (NPA) was defined as an advance where the:

a) "interest and/or instalment of principal remain overdue for a period of more than 180 days in respect of a Term Loan;
b) the account remains 'out of order' for a period of more than 180 days, in respect of an Overdraft/Cash Credit (OD/CC);
c) the bill remains overdue for a period of more than 180 days in the case of bills purchased and discounted;
d) interest and/or instalment of principal remains overdue for two harvest seasons but for a period not exceeding two half years in the case of an advance granted for agricultural purposes; and
e) any amount to be received remains overdue for a period of more than 180 days in respect of other accounts" (RBI, 2001).

[4] This discussion follows the RBI Circular on "Prudential Norms on Income Recognition, Asset Classification and Provisioning - Pertaining to Advances" of August 30, 2001 (DBOD No. BP.BC/ 20 /21.04.048 /2001-2002) (RBI, 2001); retrieved from https://m.rbi.org.in/scripts/BS_ViewMasCirculardetails.aspx?Id=449&Mode=0.

Later, to move towards international best practice and ensure greater transparency, a '90-day' overdue' norm for identifying NPAs was adopted in 2003-04. Accordingly, with effect from March 31, 2004, a NPA was defined as a loan or an advance for which the 180-day timespan was replaced by a 90-day limit for all the criteria [(a), (b), (c), (d), and (e)] mentioned above. *Put simply, in most cases, any loan which is due for 90 days or over is typically classified as an NPA.*[5]

Furthermore, NPAs are segregated in terms of (a) sub-standard assets, (b) doubtful assets, and (c) loss assets. While a sub-standard asset is one that has remained an NPA for less than one year, a doubtful asset is one that has been an NPA for over a year, and a loss asset is one where loss has been identified, but the amount has not been written off wholly. The provisioning requirements for each type of asset differ (Table 2).

Table 2: Provisioning Requirements on Various Categories of Loans

Asset Category	NPA Duration	Provisioning Rate (%)
1. Standard		0.25 -1.0
2. Sub-Standard	<1 year	15
3. Doubtful	Up to one year	25
	One to three years	40
	More than three years	100
4. Loss		100

Source: Reserve Bank of India

A distinction is also, made between 'gross NPAs' and 'net NPAs'. Net NPA subtracts the amount of provisioning made by the bank from the gross NPA. For the sake of analysis, gross NPA is often expressed as a ratio of total advances, indicating how much of the loan portfolio of a particular bank is 'bad'.

Regulatory standards and associated definitions of NPAs, to some extent, vary across countries. The treatment also differs among the two major accounting standards, i.e., IFRS 9 (International Accounting Standards Board on classification and measurement of financial assets, financial liabilities, and some contracts to buy or sell non-financial items, which is prevalent in European economies) and the US GAAP (Generally Accepted Accounting Principles). In general IFRS 9 requires a more granular assessment of credit risk in comparison to the IAS 39 /US GAAP. While India has not formally adopted any particular standards, it is closer to IFRS 9. A BIS survey on the identification and measurement of NPAs revealed differences across countries and within jurisdictions in accounting requirements (Baudino et. al, 2018).

Interestingly, the term 'wilful default' is somewhat unique to India. A wilful default broadly covers the following: "a) deliberate non-payment of the dues despite adequate cash flow and good net worth; b) siphoning off of funds to the detriment of the defaulting unit; c) assets financed either not been purchased or been sold and proceeds have misutilised; d) misrepresentation/falsification of records; e) disposal/ removal of securities without the bank's knowledge; and f) fraudulent transactions by the borrower" (RBI, 2007).[6]

5 Treatment of an agriculture loan is, however, slightly different. An advance granted for agricultural purpose is classified as an NPA if "interest and/or instalment of principal remains overdue for two harvest seasons but for a period not exceeding two half years".

6 RBI Master Circular on Wilful Defaulters of July 2, 2007; available at https://www.rbi.org.in/Scripts/ BS_ViewMasterCirculars.aspx?Id=3670&Mode=0

Finally, it should be noted that the notion of bad debt is more formally related to two distinct but related ideas: (a) the notion of impaired assets in accounting principles; and (b) prudential oversight. In a recent account it has been aptly noted that:

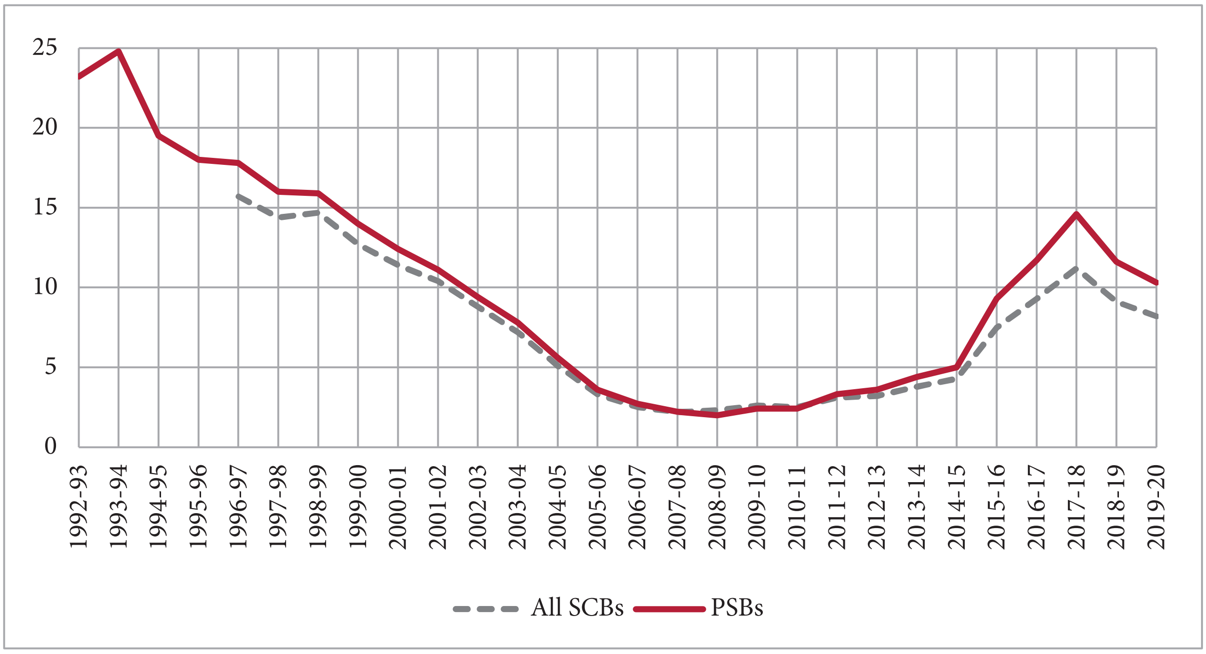
> "The published financial statements of banks are typically the domain of accounting standard setters; as such, accounting rules provide a framework to determine both the credit quality of an exposure and associated provisioning requirements to absorb incurred and expected losses. The accounting principles that are followed by most jurisdictions are based on International Financial Reporting Standards (IFRS). Separately, many prudential regulators also require banks to classify assets according to their credit quality and often intervene with different degrees of intrusiveness on banks' provisioning practices. At the international level, the BCBS has issued guidance on the identification of non-performing exposures, but there is no international regulatory standard on measurement issues, including provisioning practices. ……The BCBS has recently introduced a definition of "non-performing exposures" (NPE) which complements the accounting concept of "impaired". The BCBS NPE definition is designed for supervisory purposes and is not intended to undermine accounting standards that drive the accuracy of loan impairments and associated provisions in published financial statements. In general, the BCBS NPE definition encompasses a broader range of exposures that might not be considered as "impaired" under applicable accounting standards. …With respect to NPA identification, there are important differences within accounting standards and between accounting and prudential frameworks" (Baudino et al., 2018, pp. 5-6).

How do the regulatory standards vary across the globe? During the first half of 2017, the Financial Stability Institute of the BIS launched a global study covering select countries/jurisdictions in Asia, the European Union (EU), Latin America and the US. Notwithstanding some similarities, the results reveal significant differences in NPA identification and measurement practices across countries. The varied NPA measurement practices can be attributed in particular to: (a) different accounting norms for provisioning requirements; (b) varying valuation methods for the collateral; and (c) differences in the regulatory treatment of the accrual of interest income on NPAs and asset write-offs (Baudino et. al., 2018).

The Time Line and Identification of Twists and Turns

From an examination of the data on gross NPAs as a proportion of gross advances for all scheduled commercial banks and public sector banks (PSBs) in India separately over the period 1996-97 through 2019-20, we can discern three distinct phases: (i) Phase I: 1992-93 to 2008-09 (the proportion of NPAs declined almost consistently); (ii) Phase II: 2009-10 to 2017-18 (the proportion of NPAs rose at a slow pace initially, but almost exponentially after 2014-15); and (iii) Phase III: 2018-19 to 2019-20 (when NPAs started exhibiting a downward trend) (Chart 1). As might be expected, with the advent of the Covid pandemic, there has been a recent deterioration of the NPA situation. Moreover, with the re-introduction of regulatory forbearance, the true post-Covid NPA situation will not be available for some time. We will look into this period in the last section. With PSBs dominating the Indian banking scenario, the NPA situation among them was worse than the aggregate picture for most years, implying better NPA numbers for private and foreign banks.

Chart 1: Gross NPAs as % of Gross Advances: 1992-93 through 2019-20



Legends: SCB: scheduled commercial banks; PSBs: public sector banks

Sources: (1) Trends and Progress of Banking in India, Reserve Bank of India; and (2) Database on the Indian Economy, Reserve Bank of India

The rest of the paper is an analytical account of the genesis and propagation of NPAs during these three phases.

Phase I: The Phase of Falling NPAs (1992-93 to 2008-09)

The overhang of non-performing loans posed a challenge to both the health of the banking system and to monetary policy in the 1990s. Specifically, a large stock of NPAs placed a floor to interest rate spreads and, thus, constrained the effectiveness of the interest rate channel of monetary transmission. Thus, a reduction in NPAs would require both a 'stock' measure (a one-time cleansing of banks' balance sheets) as well as 'flow' measures (preventing substantial accretion). While introducing asset classification and NPA recognition norms, the RBI has kept constant vigil on the scenario and initiated several specific measures.

The 12-year period (1996-97 through 2007-08) witnessed considerable improvements in banks' asset quality. NPAs as a ratio of both total advances and assets declined substantially and consistently from the mid-1990s. Four distinct features of this improvement in the health of Indian banking may be noted (Mohan, 2005). First, for the first time since the initiation of reforms, in 2002-03, the absolute amount of NPAs declined in both gross and net terms. Second, the falling trend in NPAs was noticeable despite relatively low GDP growth during the early years of this phase. Third, in some of the years, the net NPAs of PSBs were better than for private sector banks (Table 3). Finally, these improvements in NPAs took place despite India's transition in 2004 to a 90-day NPL recognition norm (from a 180-day norm). Of course, this was aided by a huge increase in the denominator (i.e., gross advances).

Furthermore, during the second half of the 1990s (specifically since 1996-97), in an atmosphere of falling interest rates and the introduction of prudential norms, banks became conservative and started holding large stocks of government securities.[7] This also resulted in large mark-to-market gains of banks' treasury income, which, coupled with adequate provisioning, led to a significant reduction in NPAs.

[7] This period was marked by the presence of 'lazy bankers' (see Mohan, 2002 for details). It is pertinent to turn to RBI's Report on Currency and Finance, 2007, which noted, "Bank credit, after witnessing an erratic pattern in the first half of the 1990s, showed a deceleration from 1996-97 to 2001-02….. Several factors, both on the demand and the supply sides, contributed to the contraction of credit. On the supply side, introduction of prudential norms relating to income recognition, asset classification and provisioning in the mid-1990s made banks cautious. Application of norms revealed large gross NPAs with banks…. Banks, therefore, became wary of enlarging their loan portfolio. The relatively high level of NPAs, in particular, had a severe impact on weak banks. Banks' capacity to extend credit was also impaired due to little headroom available in the capital adequacy ratio ….. Banks found risk-adjusted returns on government securities more attractive. Hence, despite lowering of statutory pre-emption in the form of SLRs, banks continued to invest in government securities, far in excess of the requirements. …. On the demand side…the corporate sector faced intense competition during the latter part of the 1990s. The focus of the corporate sector, thus, shifted from expanding capacity to restructuring and the industrial sector slowed down significantly.…Increased competition also forced corporates to restructure their balance sheets, whereby they increased their reliance on retained earnings and reduced their borrowings."

Table 3: Gross NPAs and Net NPAs of Different Bank Groups: 1996-97 through 2007-08

		SCBs	PSBs	New Private Banks
Gross NPAs as % of Gross Advances	1996-97	15.7	17.8	2.6
	1997-98	14.4	16.0	3.5
	1998-99	14.7	15.9	6.2
	1999-00	12.7	14.0	4.1
	2000-01	11.4	12.4	5.1
	2001-02	10.4	11.1	8.9
	2002-03	8.8	9.4	7.6
	2003-04	7.2	7.8	5.0
	2004-05	5.1	5.6	3.9
	2005-06	3.3	3.6	2.5
	2006-07	2.5	2.7	2.2
	2007-08	2.2	2.2	2.5
		SCBs	PSBs	New Private Banks
Net NPAs as % of Net Advances	1996-97	8.1	9.2	2.0
	1997-98	7.3	8.2	2.6
	1998-99	7.6	8.1	4.5
	1999-00	6.8	7.4	2.9
	2000-01	6.2	6.7	3.1
	2001-02	5.5	5.8	4.9
	2002-03	4.0	4.5	1.5
	2003-04	2.8	3.1	1.7
	2004-05	1.9	2.0	1.9
	2005-06	1.2	1.3	1.0
	2006-07	1.0	1.1	1.0
	2007-08	1.0	1.0	1.1

Notes: SCB: scheduled commercial bank; PSBs: public sector bank

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

Several measures were initiated during this period. The RBI advised banks to monitor 'special mention accounts,' i.e., accounts that banks perceive could turn into NPAs. Measures like the introduction of *lok adalats* and settlement advisory committees specifically tried to address the 'flow' problem. On the other hand, the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act, 2002 tried to empower secured creditors to enforce any security interest credited in their favour, without any intervention from a court or tribunal, thereby addressing the stock problem.[8] Alongside, two asset management companies were put into operation, enabled by a statutory mandate for their asset reconstruction business. Further, a Corporate Debt Recovery (CDR) mechanism was instituted to address the bad debts of large corporates (Ray, 2008).

Strict provisioning norms had been specified for the various categories of NPAs: sub-standard assets (10 percent); doubtful assets (100 percent of the unsecured portion and 20-50 percent of the balance depending on the time profile); and loss assets (100 percent). There have been substantial changes in valuation norms as well.[9] The investment portfolio is required to be classified as 'held to maturity' (HTM), 'available for sale' (AFS) (at least an annual revaluation), and 'held for trading' (HFT) (at least a monthly revaluation) under the Generally Accepted Accounting Principles (GAAP). While the 'held to maturity' component could be held at historical cost, subject to a cap of 25 percent of the investment portfolio, the balance has to be 'marked to market' at prescribed frequencies. This conservative system of accounting appears to have served banks well.

There were two opposing regulatory forces affecting the balance sheets of banks: (a) reductions in statutory requirements like the SLR or CRR increase the availability of banks' investible and lendable resources; and (b) the imposition of prudential norms could make the granting of loans somewhat difficult. The ultimate impact on commercial banks' balance sheets was, thus, an outcome of these two opposing forces.

The macroeconomic environment during this phase was primarily benign. In terms of growth, this period may be segmented into two sub-periods: 1997-2003 (when the average growth was relatively low) and 2003-08 (which was a golden period of growth) (Mohan, 2019) (Table 4).[10] The period was also marked by high credit growth. Apart from starting from a low base, this high credit growth was fuelled by aggressive retail lending strategies, particularly by new private sector banks, which then spread to PSBs as well. The conversion of two development finance institutions (DFIs), IDBI and ICICI, into commercial banks also contributed to high credit growth, particularly the conversion of the latter. These apart, some of the businesses of non-banking financial companies (NBFCs) were captured by commercial banks during this period.[11]

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[8] Recovery under the SARFAESI Act has not been impressive. One of the major drawbacks of the Act is that it is not applicable to unsecured creditors; there have also been implementation-related issues. Some of these loopholes were, in principle, plugged in the Insolvency and Bankruptcy Code, 2016.

[9] Banks were initially required to mark to market 30 percent of their investment portfolio in 1992-93 — this proportion was gradually raised to 75 percent in 1999-2000.

[10] Insofar as low growth during the initial years of this period is concerned, Mohan (2019) notes, "There was… some loss of the growth momentum in the latter half of the 1990s in the wake of the East Asian financial crisis, setbacks to the fiscal correction process, deterioration in the quality of fiscal adjustment, slowdown in agriculture growth affected by lower than normal monsoon years, some slackening in the pace of structural reforms, monetary tightening to contain inflation, and excessive enthusiasm and optimism with regard to investment plans in domestic industry following deregulation, some of which went awry" (p. 12).

[11] The RBI's Report on Currency and Finance, 2007-08 notes, "Major factors that contributed to the acceleration in credit growth were pick-up in economic growth, improvement in asset quality of the credit institutions, moderation in inflation and inflation expectations, decline in real interest rates, rising income of households and increased competition with the entry of new private sector banks (as detailed in the subsequent sections). The removal of restrictions on retail credit and project finance by banks also created new sources of credit demand."

Table 4: India: Select Macroeconomic Indicators: 1996-97 to 2007-08

Year (ending March 31)	GDP Growth (at factor cost; base 2004-05 = 100) (%)	Share in Global GDP (at PPP) (%)	Total Investment (% of GDP)	Gross National Savings (% of GDP)	CPI Inflation (%)	General Government (centre & states) Net Borrowing (% of GDP)	Growth in Non-Food Credit (%)	Current Account Balance (% of GDP)
1997	8.0	3.7	23.7	22.6	9.4	-6.6	10.9	-1.1
1998	4.3	3.7	25.6	24.3	6.8	-8.1	15.1	-1.3
1999	6.7	3.9	24.2	23.3	13.1	-9.6	13.0	-0.9
2000	8.0	4.1	26.6	25.6	5.7	-8.6	16.5	-1.0
2001	4.1	4.0	24.3	23.7	3.8	-8.3	14.9	-0.6
2002	5.4	4.1	24.2	24.9	4.3	-10.8	13.6	0.7
2003	3.9	4.2	24.8	26.0	4.0	-10.9	26.9	1.2
2004	8.0	4.3	26.8	29.1	3.9	-11.2	18.4	2.3
2005	7.1	4.4	32.8	32.5	3.8	-9.1	31.6	-0.3
2006	9.5	4.6	34.7	33.5	4.4	-7.4	38.4	-1.2
2007	9.6	4.8	35.7	34.7	6.7	-6.3	28.5	-1.0
2008	9.3	5.0	38.1	36.8	6.2	-4.5	23.0	-1.3

Source: World Economic Outlook, IMF, April 2021 and Database on the Indian Economy, Reserve Bank of India.

To summarise, during the 12-year period, 1997-2008, there was consistent improvement in the NPA position of scheduled commercial banks. This happened despite a significant change in the functioning of these banks and a transformation in the composition of their portfolios. Why did bank governance not pose a problem during this period? Several conjectures may be put forward. First, in terms of its location in the business cycle, this period was marked by an upswing phase of high growth. Second, this was accompanied by a rise in both domestic and foreign investment in India. Third, the government exchequer was far more responsible in terms of adhering to the rules of the Fiscal Responsibility and Budget Management Act. Fourth, banks may have been far more responsible in the absence of any measures of regulatory forbearance in an exuberant macroeconomic situation.

Phase II: Phase of Rising NPAs (2008-09 to 2017-18)

Broad Trends

The start of this period coincided with the aftermath of the North-Atlantic Financial Crisis (NAFC). While the direct effects of the sub-prime crisis on Indian banks and its financial sector were almost negligible because of their limited exposure to toxic products and the various macro-prudential policies of the RBI, some elements of stress did emerge in both Indian financial markets and the real sector (Mohan & Ray, 2019). A substantial and quick macroeconomic policy response was put into effect. It seems that "there was, at least with hindsight, overshooting of the stimulus, both monetary and fiscal, which sowed the seeds for inflation and current account pressures" (Mohan, 2019; p. 16). Following the Lehman failure in September 2008, there were unprecedented capital outflows from the country. Access to external commercial borrowings and trade credits also became somewhat difficult. Further, there was a sell-off in domestic equity markets by foreign portfolio investors. While such large capital outflows during September-October 2008 did not affect the banking system and NPAs, they were associated with pressures on the foreign exchange market, necessitating substantial usage of foreign exchange reserves by the RBI and a consequent squeeze on domestic rupee liquidity. Growth suffered during 2009, and fell to 3.1 percent (Table 5).

Whereas there was a revival of growth during the next two years, growth did taper off subsequently. The RBI reacted during 2008-09 with a massive monetary stimulus amounting to Rs. 5.85 trillion (around 10.5 percent of the GDP of 2008-09).[12] The large fiscal stimulus package amounted to nearly 2 percent of GDP, as well.

Table 5: India: Select Macroeconomic Indicators 2008-09 through 2017-18

Year ending March 31	GDP Growth (Base: 2011-12=100) (%)	Share in Global GDP at PPP (%)	Total Investment (% of GDP)	Gross National Savings (% of GDP)	CPI Inflation (%)	General Government (centre & states) Net Borrowing (% of GDP)	Current Account Balance (% of GDP)
2009	3.1	5.0	34.3	32.0	9.1	-9.0	-2.3
2010	7.9	5.5	36.5	33.7	12.3	-9.5	-2.8
2011	8.5	5.8	36.5	33.7	10.5	-8.6	-2.8
2012	5.2	5.9	39.6	35.4	9.5	-8.3	-4.3
2013	5.5	6.1	38.3	33.5	10.0	-7.6	-4.8
2014	6.4	6.2	34.0	32.3	9.4	-7.0	-1.7
2015	7.4	6.2	34.3	33.0	5.8	-7.1	-1.3
2016	8.0	6.4	32.1	31.1	4.9	-7.2	-1.1
2017	8.3	6.7	30.2	29.5	4.5	-7.1	-0.6
2018	7.0	6.8	31.0	29.1	3.6	-6.4	-1.8

Sources: World Economic Outlook, IMF, April 2021; 2021 and Database on the Indian Economy, Reserve Bank of India

What was the impact on NPAs during this period? Two distinct phases are discernible: there was a distinct increase in measured NPAs starting in 2011-12, but until about 2013-14 this increase was relatively slow; they started growing exponentially thereafter through to 2017-18. The deterioration of NPAs was primarily an issue in the PSBs (Table 6).

[12] See Mohan and Ray (2019) for details of India's stimulus package following the NAFC.

Table 6: Gross NPAs and Net NPAs of Different Bank Groups 2008-09 through 2017-18

	Gross NPAs (as % of Gross Advances)				Net NPAs (as % of Net Advances)			
	SCBs	PSBs	New Pvt Banks	Foreign Banks	SCBs	PSBs	New Pvt Banks	Foreign Banks
2008-09	2.3	2.0	2.9	3.9	1.1	0.9	1.3	1.8
2009-10	2.6	2.4	3.0	4.4	1.1	1.1	1.0	1.8
2010-11	2.5	2.4	2.5	2.6	1.0	1.1	0.6	0.7
2011-12	3.1	3.3	2.2	2.8	1.3	1.5	0.5	0.6
2012-13	3.2	3.6	1.8	3.1	1.7	2.0	0.5	1.0
2013-14	3.8	4.4	1.8	3.9	2.1	2.6	0.7	1.1
2014-15	4.3	5.0	2.1	3.2	2.4	2.9	0.9	0.5
2015-16	7.5	9.3	2.8	4.2	4.4	5.7	1.4	0.8
2016-17	9.3	11.7	4.1	4.0	5.3	6.9	2.2	0.6
2017-18	11.2	14.6	4.7	3.8	6.0	8.0	2.4	0.4

Note: SCBs: scheduled commercial banks; PSBs: public sector banks

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

Why did this occur? There is an influential view that the seeds of the NPAs were sown in the high growth years. Such a view is summarised in Rajan (2018) when he noted:

> "A larger number of bad loans were originated in the period 2006-2008 when economic growth was strong, and previous infrastructure projects such as power plants had been completed on time and within Budget. It is at such times that banks make mistakes. They extrapolate past growth and performance to the future. So they are willing to accept higher leverage in projects, and less promoter equity. Indeed, sometimes banks signed up to lend based on project reports by the promoter's investment bank, without doing their own due diligence. One promoter told me about how he was pursued then by banks waving check books, asking him to name the amount he wanted. This is the historic phenomenon of irrational exuberance, common across countries at such a phase in the cycle" (p. 1).

A similar view was expressed in the Economic Survey, 2016-17 (Government of India, 2017). This view needs careful empirical examination. Tables 7 and 8 present percentage changes and sectoral shares of activity-wise credit, respectively. Two major conclusions may be noted. First, notwithstanding the wide fluctuations in growth rates in activity-based credit, often reflecting the low base, growth in total credit was very high during the four-year period 2004-05 through 2007-08 (Table 7). Second, there seemed to be a distinct spurt in credit to industry from 2010 to 2017-18 (Table 8).

Table 7: Activity-Wise Distribution of Outstanding Credit of Scheduled Commercial Banks

(Percent to total credit)

Activity	Agriculture	Industry	Transport Operators	Professional Services	Personal Loans	Trade	Finance	All Others	Total Bank Credit
1991	15.0	47.6	2.9	3.0	7.7	14.7	2.3	6.9	100.0
1995	11.8	45.6	1.9	2.3	9.0	17.1	3.8	8.5	100.0
2000	9.9	46.5	1.8	3.2	11.2	15.6	4.8	7.1	100.0
2001	9.6	43.9	1.6	3.6	12.2	16.6	4.9	7.5	100.0
2002	9.8	41.4	1.4	4.2	12.6	15.4	5.7	9.5	100.0
2003	10.0	41.0	1.2	4.5	15.1	13.8	6.7	7.7	100.0
2004	10.9	38.0	1.3	5.0	20.3	11.5	6.7	6.2	100.0
2005	10.8	38.8	1.2	4.8	22.2	11.2	6.4	4.6	100.0
2006	11.4	37.4	1.6	5.4	23.3	9.9	6.3	4.7	100.0
2007	11.8	38.1	1.3	6.2	22.3	10.5	6.4	3.3	100.0
2008	11.3	38.4	1.8	7.7	20.1	8.8	7.1	4.7	100.0
2009	10.9	39.8	2.0	8.7	19.4	9.7	6.6	2.7	100.0
2010	11.7	40.5	2.6	9.1	16.7	9.1	7.3	3.0	100.0
2011	11.3	39.6	2.7	9.0	16.4	8.2	8.6	4.2	100.0
2012	11.7	40.4	2.5	7.6	15.6	9.8	8.5	3.9	100.0
2013	12.2	41.9	2.2	7.3	15.8	10.4	7.8	2.4	100.0
2014	13.4	41.6	2.1	7.5	16.2	9.1	8.1	2.0	100.0
2015	13.1	41.2	1.9	7.2	16.6	9.6	8.2	2.0	100.0
2016	13.2	39.4	2.0	7.8	17.8	9.2	8.3	2.2	100.0
2017	13.6	37.7	2.1	7.5	19.7	9.6	7.3	2.5	100.0
2018	13.7	34.7	2.2	7.3	21.3	9.6	8.3	3.0	100.0

Source: Basic Statistical Returns of Scheduled Commercial Banks in India, various issues, Reserve Bank of India.

Table 8: Credit Of Scheduled Commercial Banks According To Activity: Outstanding (Rs. billion) and Annual Expansion (percent)

	Agriculture	Industry	Transport operators	Professional and other services	Personal loans	Trade	Finance	All others	Total bank credit
Outstanding (Rs billion)									
2000-01	517	2,364	87	192	659	895	265	404	5,384
2001-02	640	2,716	93	277	825	1,009	376	623	6,560
2002-03	759	3,098	94	339	1,139	1,040	506	583	7,560
2003-04	962	3,348	112	439	1,791	1,014	590	547	8,803
2004-05	1,244	4,468	137	553	2,560	1,296	733	534	11,525
2005-06	1,727	5,662	237	819	3,532	1,502	951	708	15,138
2006-07	2,302	7,419	261	1,215	4,336	2,049	1,240	651	19,471
2007-08	2,741	9,285	447	1,873	4,854	2,126	1,706	1,138	24,170
2008-09	3,095	11,344	581	2,485	5,535	2,772	1,887	778	28,477
2009-10	3,903	13,552	858	3,054	5,589	3,055	2,431	1,010	33,452
2010-11	4,610	16,120	1,104	3,681	6,701	3,333	3,509	1,698	40,756
2011-12	5,619	19,420	1,179	3,667	7,502	4,687	4,088	1,871	48,033
2012-13	6,762	23,160	1,234	4,043	8,713	5,737	4,295	1,309	55,253
2013-14	8,418	26,163	1,297	4,704	10,171	5,740	5,068	1,260	62,821
2014-15	9,043	28,360	1,341	4,966	11,440	6,627	5,607	1,401	68,785
2015-16	9,962	29,619	1,540	5,860	13,391	6,954	6,231	1,670	75,226
2016-17	10,782	29,824	1,638	5,904	15,619	7,627	5,774	2,011	79,179
2017-18	11,993	30,387	1,951	6,364	18,649	8,442	7,289	2,594	87,670
Annual Expansion (percent)									
2000-01	13.3	10.6	7.7	31.3	27.7	25.0	21.0	23.2	17.0
2001-02	23.7	14.9	7.2	44.0	25.1	12.7	42.2	54.2	21.8
2002-03	18.6	14.1	0.9	22.4	38.1	3.2	34.6	-6.5	15.2
2003-04	26.7	8.1	18.7	29.5	57.2	-2.5	16.4	-6.1	16.4
2004-05	29.2	33.5	22.8	25.8	42.9	27.8	24.3	-2.4	30.9
2005-06	38.8	26.7	72.9	48.1	38.0	15.9	29.8	32.7	31.4
2006-07	33.3	31.0	9.9	48.4	22.7	36.4	30.3	-8.1	28.6
2007-08	19.1	25.2	71.4	54.2	12.0	3.8	37.6	74.9	24.1
2008-09	12.9	22.2	30.1	32.7	14.0	30.4	10.6	-31.7	17.8
2009-10	26.1	19.5	47.5	22.9	1.0	10.2	28.9	29.8	17.5
2010-11	18.1	18.9	28.7	20.5	19.9	9.1	44.3	68.2	21.8
2011-12	21.9	20.5	6.8	-0.4	11.9	40.6	16.5	10.1	17.9
2012-13	20.3	19.3	4.7	10.3	16.1	22.4	5.1	-30.0	15.0
2013-14	24.5	13.0	5.1	16.3	16.7	0.1	18.0	-3.7	13.7
2014-15	7.4	8.4	3.4	5.6	12.5	15.5	10.6	11.2	9.5
2015-16	10.2	4.4	14.8	18.0	17.1	4.9	11.1	19.2	9.4
2016-17	8.2	0.7	6.4	0.8	16.6	9.7	-7.3	20.4	5.3
2017-18	11.2	1.9	19.2	7.8	19.4	10.7	26.2	29.0	10.7

Source: Basic Statistical Returns of Scheduled Commercial Banks in India, various issues, Reserve Bank of India.

While the details of the credit boom during 2004-08 is taken up in a later section, at this point three comments may be made on the veracity of such a view.

First, as has been argued elsewhere, given the boom in investment and saving and improvements in macro fundamentals, one may perfectly rationalise the high Indian growth phase of 2003-08. Mohan (2019) noted:

> "Restructuring measures by domestic industry in the previous period (1997-2003), overall reduction in domestic nominal and real interest rates, fiscal consolidation, strong global demand, and easy global liquidity and monetary conditions, led to a benign investment climate and improved corporate profitability. Consequently, overall high economic growth was recorded during 2003-08. Growth during this period was broad-based, with all the three key sectors – agriculture, industry and services – contributing to the momentum" (p. 13).

Second, the formation of NPAs is counter-cyclical in most countries. In high growth years, NPAs are low, and in low growth years, NPAs are high. Hence, while the rise and fall of growth rates have an important bearing on NPAs, movements in the business cycles and associated fluctuations in growth rate are not the only factors explaining NPA movements.

Third, there is a view that while the NPAs sprang up much later, there is a possibility that much of the loans that were turned into NPAs were extended during 2003-08. Table 8 shows an interesting stylised fact in this regard. While the average annual expansion of credit during the six-year period, 2003-04 through 2008-09 was Rs. 3,486 billion, during the next period (i.e., 2009-10 through 2014-15) the average annual expansion of credit was nearly double at Rs. 6,718 billion. Thus, the high rate of credit expansion of during 2003-09 could be due to a low base; bankers justifiably shed their stigma of 'lazy bankers' and took advantage the high growth phase of the Indian economy.

It is here we turn to a four-pronged explanation of the phenomenon of NPA formation during this phase.

4.2 Regulatory Forbearance[13]

A vital component of the monetary and fiscal stimuli was regulatory forbearance. In August 2008, the RBI put in place 'Special Regulatory Treatment' for restructuring debt, where following the restructuring process, lending institutions did not need to downgrade asset quality. Even before the NAFC, the Union Budget for 2008-09 had announced: "a scheme of agricultural debt waiver and debt relief for farmers with the total value of overdue loans to be waived then estimated at Rs. 50,000 crore and a one-time settlement (OTS) relief on the overdue loans estimated at Rs.10,000 crore" (RBI, 2008).

Later, several changes to the current prudential norms were made: (a) a reduction in the risk weights for claims on unrated corporates and commercial real estate from 150 percent to 100 percent; (b) a reduction in the provisioning requirements for all standard assets (i.e., residential housing loans beyond Rs. 20 lakh, standard advances in the commercial real estate sector, personal loans including outstanding credit card receivables, loans and advances qualifying as capital market exposure,

[13] The phrase 'regulatory forbearance' has been used repeatedly in this paper. A priori it could be interpreted in two senses: (a) the regulator is aware of what is happening when there are periodic bouts of excessive lending particularly by PSBs to dubious creditors, but refrains from pointing out the dangers involved; and (b) the regulator is considering as a whole the overall stability of the banking sector and the ramifications for the financial sector, so chooses not to rattle markets by blowing the referee's sharp whistle in a situation where growth and the perceived lack of credit could be concerns. We have primarily used the phrase regulatory forbearance in the sense of (b).

and non-deposit-taking systemically important NBFCs) to a uniform level of 0.40 percent;[14] and (c) permitting housing loans to be restructured even if the revised payment period exceeds ten years (RBI, 2010; Subbarao, 2008).

Later, in December 2008, guidelines on the restructuring of advances (issued in August 2008) were modified as a one-time measure and for a limited period, i.e., up to June 30, 2009 (RBI, 2008). The following modifications are noteworthy:

- The special regulatory treatment for asset classification was extended to "commercial real estate exposures restructured for the first time and in the case of exposures (other than commercial real estate, capital markets and personal/consumer loans), which were viable but were facing temporary cash flow problems and needed a second restructuring".
- "Accounts which were standard as on September 1, 2008, but slipped into the NPA category subsequently, were treated as standard on restructuring, provided banks took them up for restructuring on or before March 31, 2009, and the restructuring package was put in place within the prescribed quick implementation time schedule".
- "The condition of full security cover for availing the special regulatory treatment was waived in case of cash credit accounts which had been rendered unsecured due to fall in inventory prices, subject to banks making provisions as prescribed" (RBI, 2008).

However, forbearance measures did not end in 2009; it was far later in February 2018 that all forbearance and restructuring schemes were completely withdrawn. Thus, the actual extent of NPAs was effectively hidden during the early part of the period and gave a false sense of complacency about the quality of banks' balance sheets. It was the asset quality review (AQR) implemented by the RBI in 2015 that revealed the actual extent of the deterioration in the quality of assets with many of the inspected banks. This explains the sudden increase in NPA ratios in 2014-15 (Table 6). While the AQR revealed higher NPAs in most PSBs, the majority of the leading private banks too turned out to exhibit higher NPAs.[15] In fact, while most of the elements of regulatory forbearance were withdrawn from April 1, 2015, schemes like Strategic Debt Restructuring (SDR), Flexible Structuring of Project Loans, and the Scheme for Sustainable Structuring of Stressed Assets (S4A) continued for some more time (Table 9).

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[14] This is except in the case of direct advances to the agricultural and SME sectors which continued to attract provisioning of 0.25 percent.

[15] The RBI Report on Trends and Progress of Banking in India, 2015-16 noted, "AQR brought to the fore significant discrepancies in the reported levels of impairment and the actual position and, hence, led to an increase in the provisioning requirements for banks".

Table 9: Regulatory Forbearance in India: A Timeline

Date	Regulatory Forbearance Provisions
August 27, 2008	Special regulatory treatment – forbearance announced
December 8, 2008	Repeated restructuring allowed and forbearance temporarily extended for real estate exposures
January 2, 2009	Extension of the duration for implementing restructuring package
October 7, 2010	Promoter's sacrifice required upfront upon restructuring decreased from 15% to 7.5%
January 19, 2011	Forbearance temporarily extended for exposures for micro-finance institutions
May 18, 2011	Increase in provisioning in standard restructured assets
January 31, 2012	Working group appointed to review restructuring guidelines (chairperson: B. Mahapatra)
July 18, 2012	Working group submitted report recommending the end of forbearance
May 30, 2013	Forbearance extended until April 1, 2015
February 26, 2014	A new framework for distressed assets (Joint Lenders' Forum for large borrowers with multiple banking arrangements)
July 15, 2014	Flexible structuring of long-term project loans to infrastructure and core industries
April 1, 2015	Special regulatory treatment ended; AQR initiated
February 12, 2018	In view of enactment of the Insolvency and Bankruptcy Code, 2016 (IBC), existing guidelines for resolution of stressed assets substituted by harmonised and simplified generic framework

Source: Economic Survey, 2020-21, Vol 1, p. 202; and the authors.

In order to address this problem, the RBI initiated action on two fronts: (a) designing various restructuring mechanisms; and (b) undertaking a pragmatic assessment of NPAs. In February 2014, it issued a framework for the resolution of stressed assets. An essential part of the framework was setting up the Central Repository of Information on Large Credits (CRILC), which captured all the exposures of banks above Rs 50 million. Later, during 2015-16, it initiated supervisory action in an asset quality review (AQR),[16] under which appointed auditors checked for the following: "(i) violation of regulations relating to classification of loans; (ii) ever-greening; and (iii) all assumptions made about the recoverability of loans" (Chopra et al., 2020; p2).

The AQR, backed by the CRILC, enabled a pragmatic assessment of NPAs and led to the identification of NPAs that had not been recognised earlier (Vishwanathan, 2018). Finally, In line with the enactment of the Insolvency and Bankruptcy Code (IBC) in May 2016, the RBI, through a circular on February 12, 2018, substituted all the specific pre-existing guidelines with a simplified, generic, time-bound framework for the resolution of stressed assets, and all the forbearance and restructuring schemes were withdrawn entirely.[17]

[16] The AQR used off-site data extensively and compared the quality of these loan assets against applicable RBI norms. The banks were advised about the position that emerged from the review, along with a recommendation to adjust impairments in their books appropriately.

[17] RBI Circular on "Resolution of Stressed Assets – Revised Framework", No. DBR.No.BP.BC.101/21.04.048/2017-18, available at https://www.rbi.org.in/scripts/NotificationUser.aspx?Id=11218&Mode=0. The revised framework had a strict deadline of 180 days. During this period, a resolution plan had to be implemented, failing which the stressed assets would be referred within 15 days to the National Company Law Tribunal (NCLT) under the IBC.

What were the implications of these regulatory forbearance measures on NPA trends? The initial slow pace of deterioration and the later exponential growth of NPAs can be linked to the initiation of regulatory forbearance and its later withdrawal. It may be pertinent to quote from Chari et al. (2019)'s conclusion from a detailed econometric exercise:

> "….The forbearance measures provided banks with an incentive to hide true asset quality, and therefore the build-up of stressed assets in the system is a by-product of accounting subterfuge. …. We find a strong positive correlation between firm- and bank-distress measures over the period 2006-2016. … The flow of credit to low-quality borrowers has led to a significant misallocation of credit, especially in industries that have a higher proportion of zombies and also through banks that have a higher proportion of zombie-borrowers in their portfolio. We find evidence of the spillovers to the non-zombies in industries that have a higher proportion of zombie firms. Lending to healthy firms falls significantly in industries with a higher proportion of zombies and also by banks that have higher proportions of zombie borrowers…. Overall, the results emphasise the possibly irreversible negative effects of prolonged phases of forbearance. It appears that the process of creative destruction is hindered as low-quality firms on life support of new credit continue to survive at the expense of healthy firms" (Chari et al., 2019, p. 26).

Another major initiative following the AQR was the implementation of the revised Prompt Corrective Action (PCA) framework in 2017.[18] Under this revised PCA, indicators for capital, asset quality, and profitability, as well as for leverage, would be monitored, and any breach of the prescribed thresholds would result in the invocation of the PCA. In particular, the threshold levels for asset quality were specified in terms of net non-performing advances (NNPA) ratios of: (1) ≥ 6.0% but < 9.0%; (2) ≥ 9.0% but < 12.0%; and (3) ≥ 12.0% (Acharya, 2018).

There is a view that the AQR possibly failed to rein in the NPAs, and could even have exacerbated the problem of NPAs. However, terming regulatory forbearance "An Emergency Medicine, Not Staple Diet", the Economic Survey, 2020-21 observed, "The AQR could not bring out all the hidden bad assets in the bank books and led to an under-estimation of the capital requirements. This led to a second round of lending distortions, thereby exacerbating an already grave situation" (Government of India, 2021; Volume 1, p. 199). While such a view may question the utility of the AQR, it goes without saying that regulatory forbearance played a significant role in the build-up of NPAs.

There is, thus, an important question as to how much of the increase in NPAs was due to fresh delinquent lending, and how much to the unearthing of already existing NPAs (swept under the carpet by regulatory forbearance). But be that as it may, it goes without saying that the otherwise benign combination of the AQR and the PCA impacted fresh credit growth adversely, thereby adding fuel to the fire of the existing burden of NPAs.

Bad Fundamentals and Steep Fall of Commodity Prices[19]

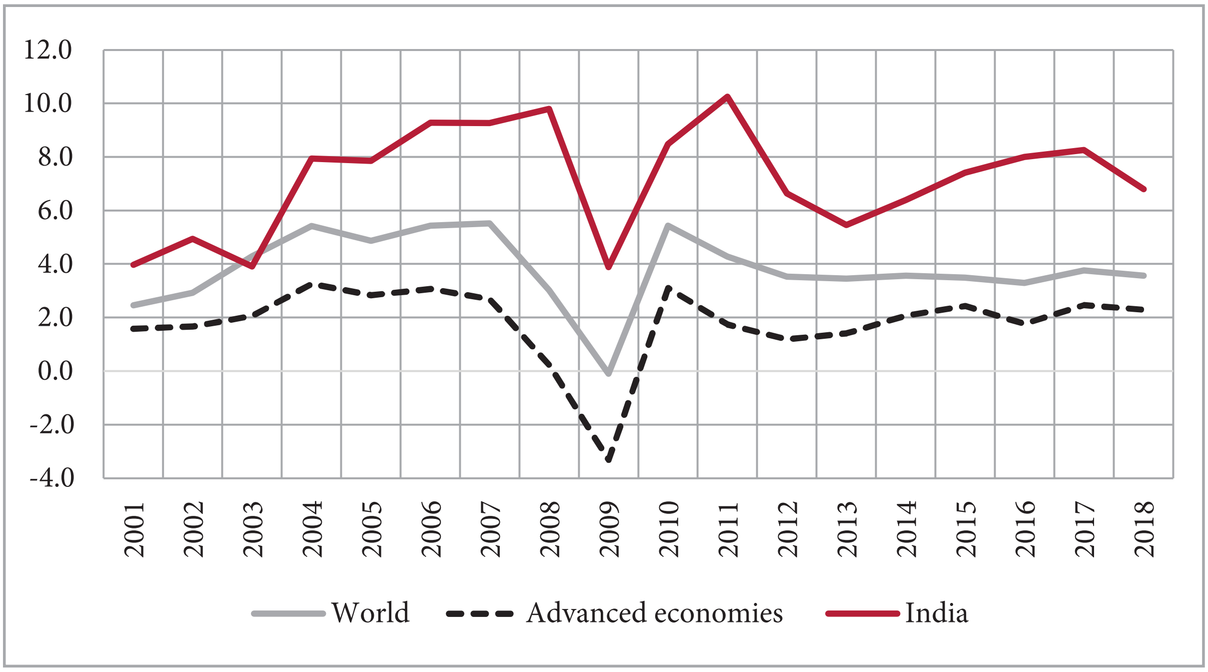
Since the initiation of the economic reform process, the Indian economy became increasingly integrated with the global economy. There were several channels at work. Apart from the traditional trade (both in goods and services), investment, and commercial borrowing channels, global sentiments also played a critical role in the Indian growth trajectory. In fact, with the opening up of the economy and the thrust of globalisation, there appears to have been some synchronicity between Indian and global growth (Chart 2). Therefore, with dampened global sentiment in the post-NAFC

[18] The original PCA framework was introduced in December 2002 as "a structured early intervention mechanism along the lines of the FDIC's PCA framework". Subsequently, the RBI reviewed the framework in line with the recommendations of the Working Group of the Financial Stability and Development Council (FSDC) on Resolution Regimes for Financial Institutions in India (January 2014) and the Financial Sector Legislative Reforms Commission in March 2013 (Acharya, 2018).

[19] The role of the commodity price fall in the generation of NPAs has been documented and analysed in Kumar et. al (forthcoming in 2022).

period, Indian economic growth was also affected adversely. While in the immediate years after the NAFC, the Indian economy could retain its growth momentum with the massive monetary and fiscal stimuli that were put in effect, with the withdrawal of the stimuli, although gradual, growth suffered after 2011-12. With slower growth, NPAs soon started emerging.

Chart 2: Global and Indian GDP Growth (%)



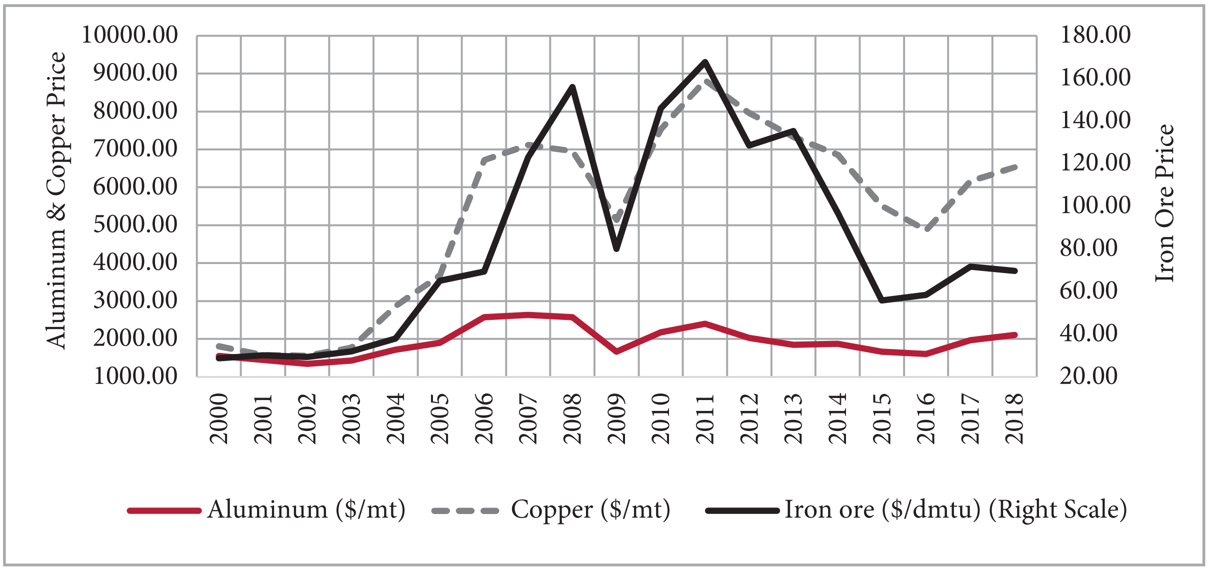
Source: World Economic Outlook Database, April 2021, IMF.

In order to analyse the formation of NPAs further, it is useful to document the sectoral distribution of credit over the years. Ideally, this should be done by matching a database on the sectoral distribution of NPAs across different industries with the sectoral distribution of credit. Unfortunately, there is no good database on the sectoral distribution of NPAs. Hence, we have to depend on anecdotal evidence.

The industry-wise deployment of bank credit shows that the top three industries receiving credit were infrastructure, basic metals and metal products, and textiles. While we will analyse the story of infrastructure in the following sub-section, one may note that there is enough evidence that metal sectors like steel suffered significantly after the NAFC: steel prices fell to $300 per tonne by December 2012, from a peak of $1,265 per tonne in 2008. Illustratively, earlier successes of companies like Bhushan Steel eroded as a result of mounting bad debt and complex litigation with leading PSBs like the State Bank of India (SBI). Thus, the critical element in NPA formation in companies associated with metals has been the steep fall of commodity prices across the world since the NAFC (Chart 3).[20] Of course, the fall in commodity prices affected the producers of these commodities and not the consumers.

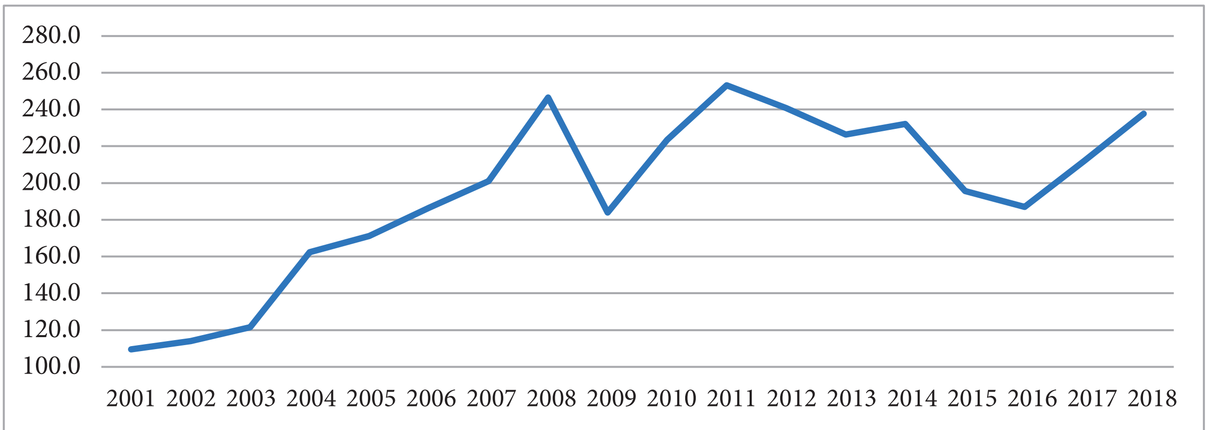
[20] Of course, the macro and sectoral impact of a general fall in commodity prices could differ. As India is a net importer of several crucial commodities including oil, a general fall in commodity prices could be beneficial to the economy, but for importing firms, it could have deleterious effects and may lead to NPA formation. Besides, a fall in steel prices could be adverse for companies like Bhushan Steel, but would be good for the construction industry and home sales. Hence, the initial fall in supply could be counterbalanced to some extent.

Chart 3A: Global Metal Prices: Select Commodities



Source: World Bank Commodity Price Data (The Pink Sheet).

Chart 3B: US Producer Price Index of Iron and Steel (Index 1982=100)



Source: US Federal Reserve

Corporate Sector Debt Problems

The high growth phase of 2003-08 was preceded by "restructuring measures by domestic industry in the previous period (1997-2003), overall reduction in domestic nominal and real interest rates, fiscal consolidation, strong global demand, and easy global liquidity and monetary conditions" (Mohan, 2019). This period was marked by a benign investment climate and improved corporate profitability. Nevertheless, after the lull in growth following the NAFC in 2008-09, India's real GDP growth rebounded sharply during 2009-11 in response to the massive monetary and fiscal stimuli. However, the recovery was short-lived, and growth decelerated significantly in the following three years. There were several accompanying macroeconomic developments as well: (a) a setback to fiscal consolidation; (b) large increase in the current account deficit; (c) rising inflation; (d) decline of private corporate investment; and (e) rise in the real exchange rate (Kapur & Mohan, 2014). Such macroeconomic deterioration and some structural constraints, like land issues and the lengthy litigation process, dampened the investment climate.

We have already referred to an influential view that from 2003 to 2008, credit growth picked up very sharply, which in the later downturn period (i.e., 2009-11) sowed the seeds of the NPA problem. The Economic Survey, 2016-17 attributed the advent of the corporate sector debt issue (which, along with the stressed balance sheets of the banking sector, gave rise to the twin balance sheet problem) to the high credit growth recorded during this period.

It was argued that during the high growth period of 2003-08, firms became exuberant and launched new megaprojects, particularly in infrastructure-related areas, such as power generation, steel, and telecoms, boosting the investment rate to over 38 percent by 2007-08. A large credit boom financed this investment boom, and within a span of three years (2004-05 through 2008-09), the amount of non-food bank credit doubled. This credit boom, along with overseas inflows, led to an extraordinary increase in the debt of non-financial corporates. The propagation of the corporate debt problem was described by the Economic Survey, 2016-17 as follows:

> "But just as companies were taking on more risk, things started to go wrong. Costs soared far above budgeted levels, as securing land and environmental clearances proved much more difficult and time consuming than expected. At the same time, forecast revenues collapsed after the GFC; projects that had been built around the assumption that growth would continue at double-digit levels were suddenly confronted with growth rates half that level….As if these problems were not enough, financing costs increased sharply. Firms that borrowed domestically suffered when the RBI increased interest rates to quell double digit inflation. And firms that had borrowed abroad when the rupee was trading around Rs 40/dollar were hit hard when the rupee depreciated, forcing them to repay their debts at exchange rates closer to Rs 60-70/ dollar. …..Higher costs, lower revenues, greater financing costs — all squeezed corporate cash flow, quickly leading to debt servicing problems" (Government of India, 2017; pp. 86-87).

This line of reasoning does, however, need to be assessed through a much more careful examination of the data.

First, there was indeed a sharp increase in domestic credit to the private sector (as a percentage of GDP) during 2003-08; after a fall in 2009, it stabilised in the range of 50-53 percent (Chart 4a). But percentage growth calculations can be misleading: aggregate lending from high growth over a low base may not be that large in absolute terms. During the high-growth period of 2004-07, the initial base for bank credit was low. But, even after the credit growth rate started declining after 2006-07, in absolute terms credit expansion actually became much higher in absolute terms (Chart 4b). In fact, much of the mega corporate lending in infrastructure took place after 2009-10 (Chart 6). By the standards of advanced countries, domestic credit in India has been rather modest (Table 10).

Chart 4: Trends in Non-Food Bank Credit

Chart 4a: Non-Food credit (% of GDP)

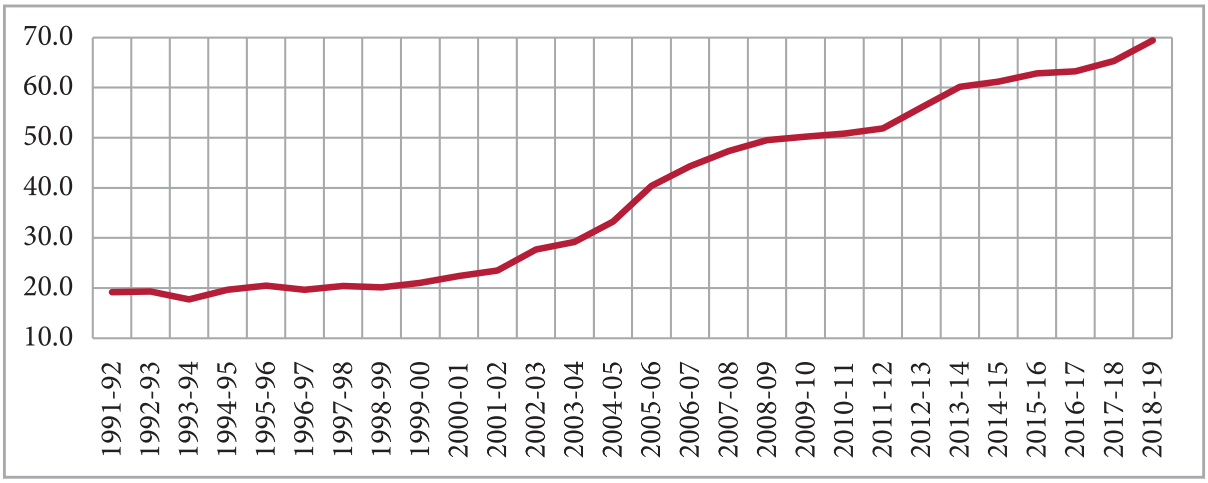
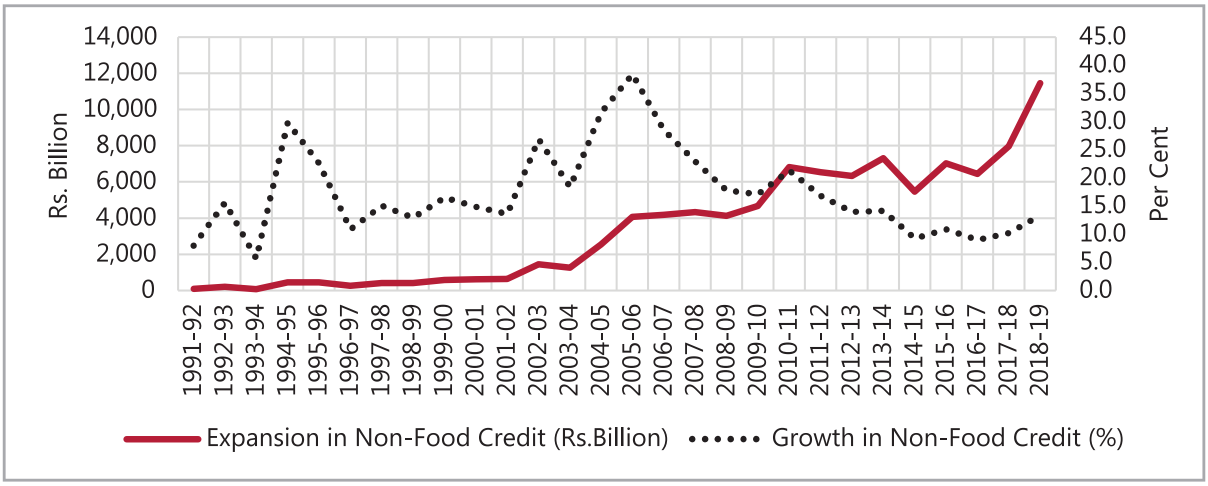


Chart 4b: Expansion in Non-Food Credit: Absolute (Rs. billion) and Growth Rate (%)



Source: Handbook of Statistics on the Indian Economy, Reserve Bank of India

Table 10: Domestic Credit to Private Sector (% of GDP)

Country	2001	2010	2019
United States	170.9	182.6	191.2
China	110.0	126.6	165.4
East Asia & Pacific	152.8	131.6	156.0
Korea	103.2	130.0	151.7
United Kingdom	120.5	185.4	133.6
Germany	112.4	88.5	80.2
Brazil	29.0	52.8	63.9
Russian Federation	16.8	42.8	52.4
India	28.6	50.6	50.2
Mexico	12.9	23.3	36.6
Memo:			
European Union	86.1	102.1	86.6
OECD members	136.8	141.4	144.7
World	124.6	120.6	132.4

Source: World Bank, retrieved from: https://data.worldbank.org/indicator/FS.AST.PRVT.GD.ZS

Fourth, while banks tend to do better when interest rates decrease, as banks usually borrow short and lend long, the regulator has also been helpful in handling the interest rate risks of Indian banks. A former Deputy Governor of RBI commented:

> "Interest rate risk of banks cannot be managed over and over again by their regulator. The regulator, in the interest of financial stability, is caught in such situations between a rock and a hard place, and often obliges. However, the trend of regular use of ex-post regulatory dispensation to ease the interest rate risk of banks is not desirable from the point of view of efficient price discovery in the G-Sec market and effective market discipline on the G-Sec issuer. Nor does it augur well for developing a sound risk management culture at banks. Recourse to such asymmetric options – heads I win, tails the regulator dispenses – is akin to the use of steroids. They get addictive and have long-term adverse effects in the form of frequent relapses even though their use may be justified to relieve occasional intense pain. Hence, it would be better for the banking system to build its own immunity and strength, i.e., emphasise internally – and put in place processes for – efficient management of interest-rate risk" (Acharya, 2018).

Finally, during the boom years of the Indian economy, bank credit to the commercial sector (as a proportion of GDP) shot up at a much faster rate than the growth in fixed investment credit (Nagaraj, 2013). Where did the credit go? Sectoral deployment of gross bank credit shows that the three major recipients of the bulk of credit were: (i) industrial credit (accounting for around half of total credit); (ii) services (around one-fourth of total credit); and (iii) retail (accounting for the remaining one-fourth). And within industrial credit, RBI data indicates that it primarily went to basic metals and infrastructure (comprising power, telecoms, and roads) (Table 11).[21] The share of

[21] Note that the data sources for Tables 8 and 9 and for Table 11 are distinct and, hence, strictly speaking, the data are not comparable between these tables. While the data in Tables 8 and 9 are derived from the specially collected Basic Statistical Returns, Table 11 is from the statutory returns of sectoral deployment of gross bank credit.

infrastructure in industrial credit continued to remain high even later. Partly as a consequence of the expanded use of public private partnerships as a matter of public policy, a substantial portion of credit went to infrastructure from 2010 to 2018.

Table 11: Deployment of Bank Credit to Industries (Rs. billion) 2004-08 to 2014-18 (annual averages)

		2004-08	2009-13	2014- 18
1	Mining & Quarrying	58	249	373
2	Food Processing	330	816	1,538
3	Beverages & Tobacco	36	129	176
4	Textiles	624	1,424	2,032
5	Leather & Leather Products	43	72	106
6	Wood and Wood Products	16	55	100
7	Paper & Paper Products	94	219	331
8	Petroleum, Coal Products & Nuclear Fuels	264	646	593
9	Chemicals & Chemical Products	473	1,111	1,641
10	Rubber, Plastic, & their Products	69	232	388
11	Glass & Glassware	15	56	86
12	Cement & Cement Products	87	312	542
13	Basic Metal & Metal Products	677	2,161	3,998
14	Engineering	377	947	1,519
15	Vehicles, Vehicle Parts & Transport Equipment	172	459	712
16	Gems & Jewellery	186	425	712
17	Construction	151	454	767
18	Infrastructure	1,184	5,062	9,046
19	Power	951	2,651	5,339
20	Telecom	383	770	882
21	Roads	345	907	1,701
22	Others	375	734	1,124
23	Other Industries	829	1,446	1,906
24	Total Credit to Industries	5,684	16,276	26,568
25	Memo: Credit Expansion (Per Year)	1,363	2,744	938
26	Memo: Annual Credit Growth (%)	28.8	21.1	4.0

Source: Calculated from Reserve Bank of India's Handbook on the Indian Economy.

Incidentally, while contributing substantially to the increasing share in bank credit, industries, infrastructure and basic metals also contributed to the formation of NPAs Specifically in sectors like power, transport, and telecom, there are instances of restructured loans (a euphemism for a bad debt classified as a standard asset in a particular year). Illustratively, the power sector accounted for nearly 24 percent of the total restructured advances to infrastructure (as reflected in the "Sector's share in restructured standard assets ratio"), while within the power sector, nearly 18 percent of its advances have been restructured (as indicated by the "Sectoral restructured standard advances ratio") (Table 12). More importantly, the power sector's restructured standard advances accounted for nearly 6.5 percent of aggregate restructured standard advances. In particular, the share of the sector in restructured advances was quite high for sectors like power and transport.

Table 12: Infrastructure Sector's Credit Risk Profile: March 2015 (percent)

Sector	Infrastructure	Of which: Power	Of which: Transport	Of which: Telecom
Sector's share in total advances	14.86	8.67	3.13	1.61
Sector's share in restructured standard advances	40.45	23.92	14.26	2.27
Sectoral restructured standard advances ratio	17.55	17.79	29.35	9.09
Aggregate restructured standard advances ratio	6.45	6.45	6.45	6.45

Notes:

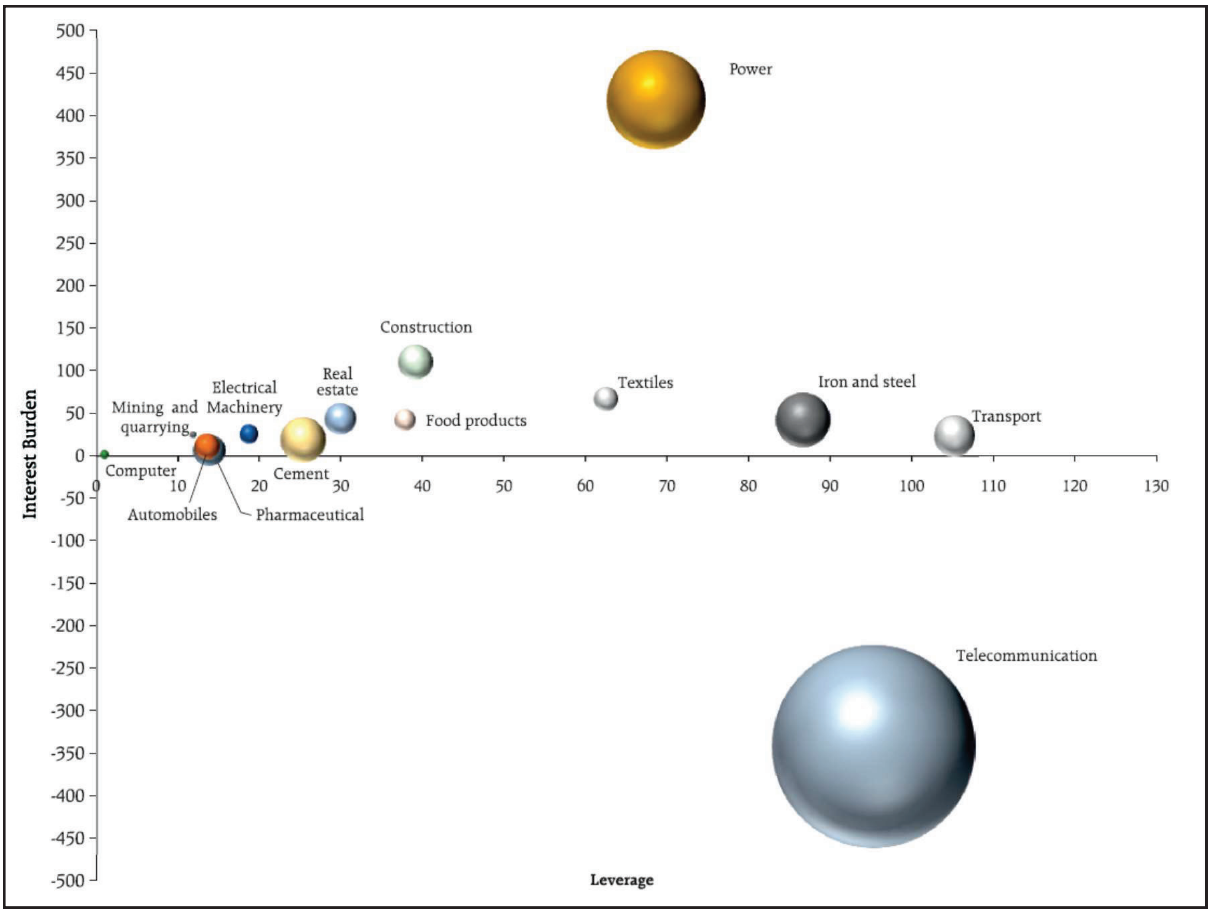
1. Standard advances refer to a loan "which does not disclose any problems and which does not carry more than normal risk attached to the business. Such an asset should not be an NPA" (RBI, Master Circular - Income Recognition, Asset Classification, Provisioning & Other Related Matters, July 1, 2008).
2. Restructured assets or loans are those assets which were given an extended repayment period, or reduced interest rate; were allowed to convert part of the loan into equity; or provided additional financing; or some combination of these measures. Hence, under restructuring, a bad loan is modified as a new loan.
3. Total advances = standard advances + stressed advances
4. Stressed advances = NPAs + written-off advances + restructured advances

Source: Financial Stability Report, June 2015, Reserve Bank of India.

Which industries turned out to be most risky? Segregating the significant industries in terms of (a) leverage and (b) interest burden (i.e., interest expense as a percentage of EBITDA–earnings before interest, taxes, depreciation, and amortisation) shows that at the end of March 2017, the telecommunication industry had the most significant debt with negative profitability (Chart 5). Three other sectors – power, construction, and iron & steel industries – suffered from relatively high leverage and a high-interest burden (RBI, 2017).

While each of these sectors has its own story of structural constraints that dampened its growth momentum, two deserve special mention.

Chart 5: Risk Profiles of Select Industries (March 2017)



Note: The size of the bubble is based on the relative share of average debt of the industry unit (average debt per company) in the total debt of all industries derived from the sample of companies.

Source: Financial Stability Report, June 2017, Reserve Bank of India

Telecom: The situation in the telecom sector is complicated. It was saddled with poor corporate governance, corruption charges, high spectrum charges, regulatory overlaps, and associated legal hurdles (Agur, 2018). Besides, policy uncertainties in the form of the decision to cancel and re-auction the telecom airwaves, increasing competition, and irrationality in pricing behaviour leading to a price war among the major market players added to the stresses on the sector. An important component during the 2008-13 period has been the chequered history of 2G spectrum auctions. In 2008, 122 new second generation (2G) Unified Access Service (UAS) licenses were distributed on a 'first come first served basis' to telecom companies at 2001 prices (Chattopadhyay & Chatterjee, 2014).[22] The process was marred by controversies, as there were allegation of malpractices and the Central Bureau of Investigation (CBI) filed a charge sheet indicating corruption in the distribution process. During this period, because of very high auction bids *government revenue gains were substantial.* In fact, primarily on account of the proceeds from the spectrum auction, the fiscal deficit experienced a dip during 2010-11. *Thus, in some sense the PSBs paid the price of public policy-induced government lending.* However, what was the exposure of the PSBs to the 2G spectrum auction? Firm estimates may be hard to come by, but a report in the *Economic Times* (February 12, 2012) went on to say:

[22] Later in 2012, in another auction of 2G spectrum (in both the GSM and CDMA bands), the government received bids worth a total of Rs. 9,4 billion, far lower than its target of Rs. 280 billion from the sale of 2G spectrum in the GSM band. The response in the March 2013 spectrum auction too was poor.

> "The public sector banks have an exposure of about Rs 10,000 crore in the telecom companies whose licences were cancelled by the Supreme Court in connection with 2G scam. 'The public sector banks have an outstanding loan of Rs 10,000 crore...of which Rs 7,500 crore is secured (against assets),' a senior Finance Ministry official said.… The exposure of PSU banks in these telecom companies, he added, was 'very much limited' in view of the overall asset size of the state-owned lenders".

Power: In this sector, expectations were affected by a number of key impeding factors:

- Unreliable availability of coal with many of the power companies being affected by the cancellation of coal block allocations in 2014 (Sharma et al., 2018).
- The contracting of power purchase agreements with distribution companies at unfavourable rates.
- The unexpected slowdown in demand growth due to the slowdown in industrial growth.
- Competition from the renewables segment aided by the rapidly falling price of non-thermal sources of power.

Pointing out that the Rs 530 billion exposure of Indian banks to seven state electricity boards (SEBs) has a "very high probability" of turning into NPAs in the quarter ending September 2015, RBI's *Financial Stability Report* went on to say:[23]

> "Serious bottlenecks persist in the area of power distribution. The deteriorating financial health of distribution companies (DISCOMs) is an area of concern. The states have not been able to strengthen the financial health of DISCOMs under their financial restructuring plans (FRP) as they have been unable to comply with the requirements relating to the elimination of the gap between average cost of supply (ACS) and average revenue realised (ARR), reduction of transmission & distribution (T&D) losses, fixing tariff on a regular basis and setting up of the State Electricity Distribution Responsibility Act. Banks have restructured around ₹530 billion of the seven DISCOMs' exposure under FRP (financial restructuring plans). The moratorium period for repayment of the principal amounting to ₹430 billion ended by March-2015. Considering the inadequate fiscal space, it is quite likely that the state governments might not be in a position to repay the overdue principal/instalments in time and banks may be forced to continue classifying these loans as SMA-2 as is being currently done on account of delayed servicing of interest. Probability of slippage of this exposure into NPAs is very high considering the implementation of new regulatory norms on restructuring of loans and advances effective April 1, 2015" (RBI, 2015).

Thus, it seems that the increase in NPAs, which came to light after the 2014-15 AQR reflected, to a significant extent, public policy failure.

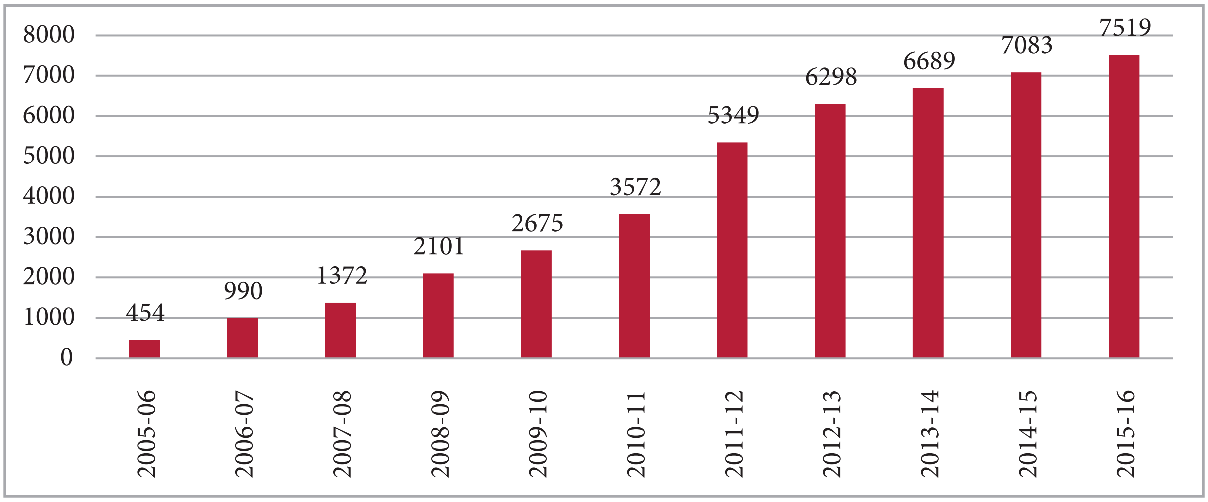
A vital aspect of the infrastructure sector's contribution to the NPA problem has been its high level of debt, which is characteristic of infrastructure financing. Based on the *House of Debt reports* of Credit Suisse, the *Economic Survey, 2016-17* reported that the debt levels of ten leading corporates during the 11 years, 2005-06 through 2015-16, went up by a factor of 16 (Chart 6).[24] Interestingly, many of these debts were not reflected in the banks' books as bad debt on account of regulatory forbearance and related reasons, till all the regulatory forbearance measures were withdrawn in

[23] These loans were restructured in 2012, with a three-year moratorium for the principal amount of Rs 43,000 crore.

[24] The names of the corporate groups reported in the *House of Debt Report* (October 2015) were: Adani Group, Essar Group, GMR Group, GVK Group, Jaypee Group, JSW Group, Lanco Group, Reliance ADAG, Vedanta Group, and Videocon Group (see, https://plus.credit-suisse.com/rpc4/ravDocView?docid=V4pSWN1AF-WElY95). In March 2007, "these groups owed the Indian banking system a total of Rs 99,300 crore, or around 5.7 percent of the total loans given out by the Indian banking system. In March 2012, the loans had jumped to around Rs 5,39,500 crore" (Kaul, 2020). This touched Rs. 7,335,45 crore in 2014-15. Chart 6 reports the updated numbers from the *Economic Survey, 2016-17.*

2017-18, but it was widely known that many of these projects were in the red.[25] A big jump in the debt levels of these corporates is noticeable from 2011-12 onwards.

Chart 6: Debt of Top Ten Stressed Corporate Groups (Rs billion)

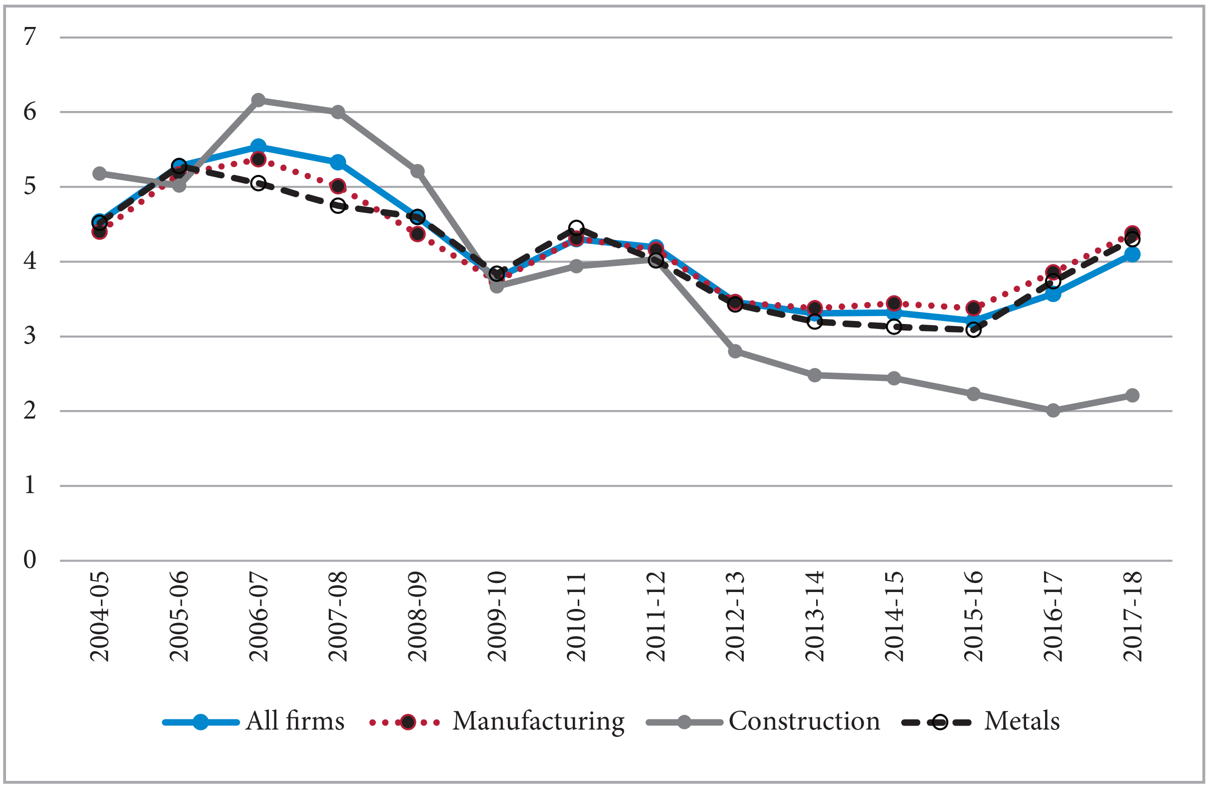


Source: Credit Suisse Database and Economic Survey, 2016-17, p. 90.

However, the problem went beyond these select corporate groups. Based on the CMIE's Prowess database and Shukla and Shaw (2020), we looked at two metrics of Indian corporates, the debt-equity ratio and interest coverage ratio. As far as the debt-equity ratio is concerned, because of its seniority in liquidation, debt typically has a lower cost of capital than equity. The interest coverage ratio (ICR) is a measure of a company's ability to meet its interest payments and is defined as earnings before interest and taxes (EBIT) for a period, divided by the interest expenses for the same period. Thus, if a company has a low-interest coverage ratio, it means that there is a greater chance it will not be able to service its debt, and hence, it has higher bankruptcy risk. That is to say, a low-interest coverage ratio would imply that there is a low amount of profits available to meet the interest obligation of the firm. There was a distinct downward trend in the interest coverage ratio during the period 2012-13 through 2015-16 (Chart 7). The deterioration in this ratio was more pronounced for construction firms.

[25] Ashish Gupta, then Head of Equity Research, Credit Suisse, and principal author of the *House of Debt Report,* said in an interview, "In 2011 was when we first came out and said NPAs in the banking system are in double digits and not the 2% that is reported. But 2012 is when we narrowed it down. I remember in 2013-14 we did another report where we showed NPA numbers had gone up. We looked at annual reports of the companies, which according to Indian regulations had to start reporting if they were in default of payments to creditors. So we aggregated some top 200 annual reports and some of the companies we were tracking. Just by adding that, we were able to come to some double-digit number on the percentage of corporates where in the annual report the company has mentioned it is in default of its debt obligations, and it was not reported by the banks. So in the banks' book it was not an NPA. And in fact many of the companies in their reports even mentioned the amount in default, the period of default—and in many cases that was more than 90 days [the threshold for bad-loan recognition in India]. But still in the bank books everything was good. So I don't know where the slip was" (Ashish Gupta: The man who saw India's NPA crisis early warns of new peril, *The Mint*, March 20, 2020).

Chart 7: Interest Coverage Ratio of Indian Corporates



Source: CMIE Prowess data and Shukla & Shaw (2020).

Nevertheless, the prevalence of debt *per se* may not indicate trouble. The difficulty was that the lion's share of such debt has come from banks due to the lack of a developed corporate debt market in India. In fact, after the death of the erstwhile development finance institutions (like IDBI or ICICI in their earlier *avatars*), apart from the blue-chip corporates, the primary source of project finance became banks. Despite several committees analysing the corporate debt market in India and suggesting measures for its growth and deepening, the corporate debt market has predominantly remained a private placement market open to top-notch corporates (Mohan, 2011). With their short-term liabilities (i.e., deposits), banks face the inevitable consequence of an asset-liability mismatch in project financing.

In terms of market-based sources, debt differed quite a bit across different sizes of firms. Illustratively, while the share of market-based sources (debentures, bonds, and CPs) in total debt was less than 6 percent for firm size categories 3-9 (Table 13), for the two most significant categories (i.e., 1-2), the share of market-based sources was around 27-28 percent. The lower dependence on banks and FIs for Decile 7 firms remains a riddle. However, once one recognises that a key function of the financial system is maturity transformation, then one wonders whether the difficulty faced by Indian commercial banks is to do with some innate issues around efficiency (Mohan, 2006; Mohan, 2011).

Table 13: Sources of Debt for Non-financial Firms Across Size Categories (End-March 2018)

Size classes	Banks and FI	Debentures, Bonds, CPs	Foreign Currency Borrowings	Other Non-bank Non-market Sources
Decile 1	43.9	28.5	15.2	1.7
Decile 2	55.6	26.8	5.5	4.9
Decile 3	79.1	5.2	4.7	4.9
Decile 4	72.1	2.8	4.1	13.6
Decile 5	70.4	2.3	0.8	10.5
Decile 6	81.0	-	-	11.7
Decile 7	38.4	2.1	-	37.2
Decile 8	85.1	-	-	14.7
Decile 9	51.2	-	-	15.4

Note: Size is defined in the Prowess database as the three-year average of a company's total income and total assets. Decile 1 consists of the largest among the sample, and Decile 9 is the smallest.

Source: Reserve Bank of India (2019), p. 22.

To summarise, in retrospect it seems that the accumulation of corporate debt and the resultant fragility of the corporate balance sheets affecting bank balance sheets was an outcome of both bad policy and bad luck, aided by malfeasance and a lack of professional judgment/courage on the part of the PSBs.

Corporate Governance and Corruption-related Issues

In the popular discourse on the issue of NPAs, the names of several business people, some of whom have escaped overseas thereby bequeathing huge unpaid debt to some Indian PSBs, often crop up,[26] along with some specific bank names. This is consistent with the view that nearly 90 percent of bank frauds relate to advances. If taken in a caricatured manner, such a tainted view of Indian banking may be construed to imply that the NPA problem is the outcome of a few large and many small scams, whereby some sort of politician-banker-industrialist nexus plays havoc. While there may be some elements of truth in some cases, governance issues in Indian banking are far more nuanced and complex.

[26] In response to the Lok Sabha Question No. 1551, the Minister of State in the Ministry of External Affairs [Gen. (Dr.) V. K. Singh (Retd)], listed 41 names on December 19, 2018. Specifically, he replied, "According to the information provided by the ED, the list of people involved in financial irregularities and facing criminal investigation and who fled the country or are living abroad are as follows: (i) Shri Vijay Mallya; (ii) Shri Christian Michel James; (iii) Shri Nirav Modi; (iv) Shri Mehul Choksi; (v) Shri Ashish Sureshbhai Jobanputra; (vi) Mrs. Priti Ashish Jobanputra; (vii) Shri Ramachandran Viswanathan; (viii) Shri M.G. Chandrasekhar; (ix) Shri Sanjay Bhandari; (x) Shri Nitin Jayantilal Sandesara; (xi) Shri Chetan Jayantilal Sandesara; (xii) Smt. Dipti Chetan Sandesara; (xiii) Shri Hiteshkumar Narendrabhai Patel; (xiv) Shri Deepak Talwar; (xv) Smt Deepa Talwar; (xvi) Shri Sunny Kalra; (vii) Smt Aarti Kalra; (viii) Shri Sanjay Kalra; (xix) Smt Varsha Kalra; (xx) Shri Jatin Mehta; (xxi) Shri Lalit Modi; (xxii) Shri S. Harpal Singh Dutta; (xxiii) Shri Ritesh Jain (xxiv); Shri Mugundhan Ganyam; (xxv) Shri Pushpesh Kumar Baid; (xxvi) Shri Nitish J. Thakur; (xxvii) Smt. Purvi Modi; (xxviii) Shri Mihir Rashmi Bhansali; (xxix) Shri Aditya Nanawati; (xxx) Shri Sunil Verma; (xxxi) Shri Neeshal Deepak Modi; (xxxii) Shri Nehal Modi; (xxxiii) Shri Maiank Mehta; (xxxiv) Shri Jayesh Indervadan Shah; (xxxv) Shri Deepak Krishnrao Kulkarni; (xxxvi) Shri Deepak Modi; (xxxvii) Shri Subhash Shankar Parab; (xxxviii) Shri Rajiv Saxena; (xxxix) Shri Rajesh Gajera; (xl) Shri Carlo Valentino Fernando Gerosa; (xli) Shri Guido Ralph Haschke". Retrieved from https://www.mea.gov.in/lok-sabha.htm?dtl/30788/QUESTION_NO1551_FINANCIAL_ABSCONDERS_ABROAD.

There is a rich empirical and theoretical literature on corruption in banking (e.g., Bahoo, 2020) that emphasises the substantial evidence and rationale that corruption significantly deteriorates the quality of bank loans (Park, 2012). Interestingly, the fundamental political economy argument on corruption and its prevention could run in a complex manner. On the other hand, it has been documented and analysed that the fear of being prosecuted by the five C's (viz., Central Vigilance Commission, Central Information Commission, Central Bureau of Investigation, Comptroller and Auditor General, and the courts) could make bankers more risk-averse, and this resulted in under-lending in Indian banking (Banerjee et al., 2004). Notions of a potential nexus between bankers and industrialists is in sync with Bardhan's (1984) thesis on a coalition between three dominant classes, i.e., industrial capitalists, wealthy farmers, and professionals in the public sector, dictating the course of economic development in India.[27] However, in banking, the situation could be more complex, involving the board of directors and its relationship with the government.

The role of the Central Vigilance Commission (CVC) in the credit crunch raises a crucial question. If a bank manager hesitates to extend a loan for fear of the CVC, then what explains the accumulation of such a massive amount of NPAs? Both cannot be true at the same time. As early as 2012, the CVC Annual Report 2012 noted, "While examining vigilance cases in the Commission, it was observed that many takeover loans by Banks from other Banks are becoming non-performing assets (NPAs) within a short span (quick mortality cases) and a lot of lapses are observed on the part of the Bank staff resulting in huge loss to the Banks". More recently, the CVC's report, *Analysis of Top 100 Bank Frauds,* flagged the following four major loopholes that could have led to corrupt practices in the banking sector in India (CFA, 2018). First, there was a lack of *due diligence* by banks in case of several frauds. Second, in some of the cases, the *diversion of funds* occurred on a large scale by the promoters of companies (e.g., diversion of money to personal accounts/shell companies). Third, there are instances of *fraud* committed by companies (e.g., the existence of fake subsidiaries or satellite companies with their employees as directors, which were used to transfer the NPA accounts of these companies to the satellite companies). Finally, there are instances of *fabrication of information*.

Insofar as the PSB boards of directors are concerned, it is essential to remind ourselves what the P. J. Nayak Committee had noted: "It is unclear that the boards of most of these banks have the required sense of purpose, in terms of their focus on business strategy and risk management…. The boards are disempowered, and the selection process for directors is increasingly compromised. Board governance is consequently weak" (RBI, 2014; p. 1). In particular, the Committee flagged the various roles of the central government as an investor, owner, and sovereign, which are often in conflict and pave the way for avenues for rent-seeking in banking. While some of the specific cases of corruption in banking have been well-documented, instances of the political-banker-industrialist nexus have perhaps received less serious investigative or academic attention.[28] Some recent measures like the government's *Indradhanush* initiative, including separating the posts of chairman and managing director, setting up the Banks Board Bureau (BBB), and decentralising more decisions to the professional board, are expected to bear fruit. Nevertheless, the experience of the BBB shows that much remains to be done.[29]

[27] In the context of the political economy of financial sector corruption, Majumdar (2016) commented, "Firms borrowed more because banks willingly lent them more, irrespective of project or business viability".

[28] Two recent books have exciting analyses of the relevant issues for India; see Kaul (2020) and Bandopadhyay (2020) for select cases of corruption and interference in Indian banking.

[29] Vinod Rai, the first Chairman of BBB reportedly stated in a letter to the Finance Ministry, "The bureau, as a body of experts on public sector banking, would be able to provide greater utility to the FM on matters relating to the governance and performance of PSBs, if there were to be greater organic linkage and dialogue with the finance ministry. At present, the body is merely functioning as an appointment board" (*Business Standard*, October 20, 2018, retrieved from https://www.business-standard.com/article/finance/rai-alleges-communication-breakdown-between-banks-board-bureau-and-govt-118031901218_1.html)

Some of these deficiencies of corporate governance in banks have been addressed in the RBI's discussion paper, 'Governance in Commercial Banks in India' (June 11, 2020), which reviews the framework for governance in commercial banks and subsequent instructions (April 26, 2021) concerning the Chair and meetings of the board, composition of certain committees of the board, age, tenure and remuneration of directors, and appointment of whole-time directors (WTDs)

Interestingly, almost all the large NPAs have emerged from large private sector listed companies, including a number of storied corporate names. There has justifiably been a great deal of commentary and criticism of imperfect corporate governance practices in PSBs that have resulted in the NPA crisis, which has plagued the Indian banking system over the past decade. However, there has been little commentary, criticism, or analysis about the efficacy of corporate governance in these large listed corporates, which deserves as much attention. Somehow the role of the lack of effective corporate governance in the borrowing corporates has not been sufficiently emphasised in policy discourse in India.

To sum up…

To summarise, the genesis and accumulation of Indian banks' NPAs during this period had five specific elements: (a) regulatory forbearance; (b) post-NAFC sudden drop in commodity prices; (c) accumulation of corporate debt, culminating in a twin balance sheet problem in a downward business cycle of the economy; (d) corruption and corporate governance-related issues in the banking sector; and (e) problems emanating from public policy promoting the PPP model of infrastructure, culminating in the cancellation of coal licenses or spectrum auctions, among others. Admittedly, these factors may not be entirely independent of one another, and there may be interrelations among these. Illustratively, a period of regulatory forbearance provides a fertile ground for increased leverage for corporates. But ultimately, the NPA crisis was an outcome of these complex occurrences.

Improvements in NPAs Since 2018

The two-year period, 2018-19 and 2019-20, witnessed considerable improvements in the NPAs of the Indian banking sector. RBI's *Financial Stability Report, December 2018* (released on December 31, 2018) announced this welcome trend, noting that with the NPA ratio declining from 11.6 percent in March 2018 to 10.8 percent in September 2018, there had been an improvement in the asset quality of banks. This gradually declining trend continued till March 2020 with a sharp decrease during the six months between September 2019 and March 2020 (Table 14).

Table 14: Gross NPA-Advances Ratio March 2018 – March 2020

	Mar-2018	Sep-2018	Mar-2019	Sep-2019	Mar-2020
Public sector banks	15.6	14.8	12.6	12.3	10.8
Private banks	4.0	3.8	3.7	5.1	5.1
Foreign banks	3.8	3.6	3.0	2.9	2.3
All scheduled commercial banks	11.6	10.8	9.3	9.3	8.4

Source: Financial Stability Report, Reserve Bank of India, various issues.

The decline in the NPA ratio has been the outcome of three key policy initiatives.

First, better credit discipline being inculcated through the withdrawal of various measures of regulatory forbearance after the initiation of RBI's AQR in 2015. The AQR covered 36 banks (including all the PSBs) which were responsible for 93 percent of the gross advances of commercial banks, and made all the stakeholders aware of the real picture of their stressed assets. Admittedly, there were allegations that the AQR seemed to have affected the profitability of several commercial banks, and that record losses were posted in Q4 of 2015-16 by many large PSBs. Subsequently, the RBI released a revised framework for Prompt Corrective Actions (PCA) in April 2017. The framework covered 11 PSBs, which were then restricted in their operations and subjected to a remedial action plan to prevent further capital erosion. A contentious issue in this context has been RBI's circular of February 12, 2018;[30] while repealing all earlier restructuring schemes, it required all lenders (i.e., scheduled commercial banks [excluding RRBs]) and the all-India financial institutions (EXIM, NABARD, NHB, and SIDBI) to develop board-approved policies for the resolution of stressed assets.[31] It stipulated a 180-day deadline (from March 1, 2018) for existing defaults where the resolution plan aggregate exposure is over INR 20 billion. It also imposed stringent implementation norms for 100% lender approval, security creation/perfection, and capital structure changes to be achieved and mandated that if implementation of the resolution plan failed during the 'specified period,' lenders would take the borrower to the IBC.[32] Such measures re-introduced a reality check and practical credit disciplines, and played a significant role in reducing the NPA levels of commercial banks in India.

[30] RBI Circular on "Resolution of Stressed Assets – Revised Framework", number RBI/2017-18/131 DBR.No.BP. BC.101/21.04.048/2017-18, retrieved from https://www.rbi.org.in/scripts/BS_CircularIndexDisplay.aspx?Id=11218

[31] Earlier schemes included CDR, JLF, SDR, S4A, flexible restructuring and others.

[32] More recently, on April 3, 2019, however, the Supreme Court effectively struck down the February 12, 2018 circular; the bench assailed the circular as *ultra vires* to the provisions of the Banking Regulation Act, 1949 and the Reserve Bank of India Act, 1934 in the *Dharani Sugars and Chemicals Ltd. v. Union of India case.*

Second, an effective bankruptcy process is part of a Schumpeterian process of 'creative destruction' that makes capitalism vibrant and innovative. It is here that the bankruptcy reforms do have the potential of making a sea-change in the NPA scenario. Interestingly, India, has a long history of various initiatives towards enacting bankruptcy laws (RBI, 2009b). A High Level Committee on Law Relating to Insolvency of Companies, 2001 (chairperson: Justice Eradi) recommended that the Companies Act, 1956 be amended for setting up a National Company Law Tribunal (NCLT). Later, the Advisory Group on Bankruptcy Laws (chairperson: Dr. N. L. Mitra) in 2001 examined the recommendations of the Eradi Committee but suggested a separate comprehensive bankruptcy code. Finally, in 2005, the Expert Committee on Company Law, 2005 (chairperson: J. J. Irani), while examining the details of the new company law, also examined the provisions for winding-up and rehabilitation of companies. Keeping all these initiatives in mind, the report of the Committee on Financial Sector Assessment (CFSA) (chairperson: Rakesh Mohan) noted as early as 2009:

> Whereas an amendment to the Companies Act, based on the recommendations of an Expert Committee, has been made which would enable the setting up of a National Company Law Tribunal (NCLT), this major proposal itself could not take off due to a pending law suit. The determination of the appeal pending against the amendment to the Companies Act will have a significant impact on the implementation of bankruptcy laws in India (RBI, 2009b).

All these initiatives finally culminated into the Insolvency and Bankruptcy Code (IBC) that came into effect in December 2016. This is perhaps one of the significant structural reforms in the Indian corporate sector. Prior to that, India was one country in which the time taken to resolve bankruptcy was most time-consuming. Illustratively, in 2013, as against 0.8 years in Singapore and 1.7 years in China, it took 4.3 years to resolve an insolvency in India; in 2019, this improved to a remarkable 1.6 years, which was better than in China or France (Table 15).

Table 15: Time to Resolve Insolvency (years) in Select Countries: 2013 and 2019

Country	2013	2019
Singapore	0.8	0.8
Australia	1.0	1.0
United Kingdom	1.0	1.0
United States	1.0	1.0
Germany	1.2	1.2
China	1.7	1.7
Mexico	1.8	1.8
France	1.9	1.9
South Africa	2.0	2.0
Brazil	4.0	4.0
India	4.3	1.6
World Average	*2.5*	*2.5*

Source: World Bank, Doing Business project data, retrieved from https://data.worldbank.org/indicator/IC.ISV.DURS

The IBC provides a timeline of 180 days to conclude a corporate insolvency resolution process (CIRP), with a one-time extension of up to 90 days. Under the IBC regime, once the CIRP commences creditors acquire control, and the promoters are automatically ousted (Divan, 2020). The Bankruptcy Law Reforms Committee (BLRC) Report, which formed the basis of the IBC, noted, "Control of a company is not a divine right—when a firm defaults on its debt, control of the company should shift to the creditors. In the absence of swift and decisive mechanisms for achieving this, management teams and shareholders retain control after default." (Government of India, 2015).

The IBC effectively supersedes/replaces the SARFAESI Act of 2002 and RBI's asset restructuring proposals, including the Sick Industry Companies Act, debt recovery tribunals, and others which address the need to reduce NPAs in the PSBs in India (Das et al., 2020). Subsequent to passage of the IBC, the Insolvency and Bankruptcy Board of India (IBBI) and the chief regulator, the National Company Law Tribunal (NCLT) were set up to develop a complete regulatory infrastructure to deal with financial distress. Given the significant reduction in cost and time of insolvency proceedings, the IBC has become the preferred mode for insolvency resolution (Sahoo, 2019).

While it is the dominant mode of recovery, the SARFAESI Act also maintained its criticality with 26.7 percent amount (as a percentage of the total amount involved) having been recovered in 2019-20 through this process (Table 16) (Bhagwati, 2022, forthcoming). However, in recent times concerns have been expressed about delays in the resolution process of the IBBI and as of mid 2021, of the 4,500 cases admitted, only 14 percent have been resolved, 38 percent are still ongoing, and 63 percent have been closed (Nair & Sahoo, 2021).

Table 16: NPAs of Commercial Banks Recovered through Various Channels (in Rs. billion)

Recovery Channel	2018-19				2019-20			
	No. of Cases Referred	Amount Involved	Amount Recovered	Amount Recovered as % of amount involved	No. of Cases Referred	Amount Involved	Amount Recovered	Amount Recovered as % of amount involved
Lok Adalats	4,087,555	535	28	5.1	5,986,790	678	42	6.2
Debt recovery tribunals	51,679	2,684	106	3.9	40,818	2,456	100	4.1
SARFAESI Act	235,437	2,586	389	15.0	105,523	1,966	526	26.7
IBC	1,152@	1,455	664	45.7	1,953@	2,325	1,058	45.5
Total	**4,375,823**	**7,260**	**1,186**	**16.3**	**6,135,084**	**7,424**	**1,726**	**23.2**

Notes:

1. *: Refers to the amount recovered during the given year, which could be with reference to the cases referred during the given year as well as during the earlier years. In the case of IBC, the realisation does not include amount realisable for operational creditors, from guarantors of corporate debtors and disposal of avoidance transactions.
2. @: Cases admitted by National Company Law Tribunals (NCLTs) under IBC. However, figures appearing for amount involved and amount recovered are for cases whose resolution plan was approved during the given financial year i.e. 81 cases for 2018-19 and 135 cases in 2019-20. Also, the amount recovered refers to realisables by all financial creditors, not just SCBs.
3. The resolution plan of Essar Steel India Ltd. was approved in 2018-19. However, as apportionment among creditors was settled in 2019-20, the recovery is reflected in the latter year data.

Source: Report on Trends and Progress of Banking in India, 2019-20, Reserve Bank of India.

Since a few significant cases accounted for a large proportion of the funds involved in the resolution process, in line with the directions of the RBI, the resolution process of 12 large accounts was initiated by banks in June 2017. Together they had an outstanding claim of Rs. 3.45 trillion as against a liquidation value of Rs. 732 billion. Their status as of December 2020 is given in Table 17.

One of the consequences of the consolidation process of commercial banks in India has been a change in the asset quality of the consolidated/merged banks. Till 2017, India had 27 PSBs, which primarily had legacy existence. The government has, since then, merged several of the PSBs. Five of its associate banks and the Bharatiya Mahila Bank were merged with the State Bank of India in 2017; and subsequently (April 1, 2019), Bank of Baroda was merged with Vijaya Bank and Dena Bank. More recently, the Finance Minister announced the merger of ten PSBs into four with effect from April 1, 2020. Consequently, the number of PSBs now stands at 12 as against 27 in 2017.[33] While a critical variable behind the merger of specific banks has been the similarity in the choice of core banking solutions, consideration of regional spread was also taken into account. As a result of the mergers, improvements in provisions helped contain the net NPA ratios (Table 18). The final outcome is, however, arithmetical in nature with the grand/combined NPAs turning out to be a weighted average of the pre-merger position of individual banks' NPAs.

Table 17: Status of Nine Large Accounts of Corporate Debtors (in Rs. billion)

Corporate debtor	Amount Admitted	Amount Realised	*Realisation as % of Claims*	*Realisation by all Claimants (% of liquidation value)*	Successful Resolution Applicant
Electrosteel Steels	131.75	53.20	*40.38*	*183.45*	Vedanta Ltd.
Bhushan Steel	560.22	355.71	*63.50*	*252.88*	Bamnipal Steel Ltd.
Monnet Ispat & Energy	110.15	28.92	*26.26*	*123.35*	Consortium of JSW and AION Investments Pvt. Ltd
Essar Steel India	494.73	410.18	*82.91*	*266.65*	Arcelor Mittal India Pvt. Ltd.
Alok Industries	295.23	50.52	*17.11*	*115.39*	Reliance Industries Limited, JM Financial Asset Reconstruction Company Ltd., JMFARC – March 2018 Trust
Jyoti Structures	73.65	36.91	*50.12*	*387.44*	Group of HNIs led by Sharad Sanghi
Bhushan Power & Steel	471.58	193.50	*41.03*	*209.12*	JSW Limited
Jaypee Infratech	231.76	232.23	*100.20*	*130.82*	NBCC (India) Limited
Amtek Auto	126.41	26.15	*20.68*	*169.65*	Deccan Value Investors L.P. and DVI PE (Mauritius) Ltd.

Note: Apart from the nine debtors listed in the table which have completed the liquidation process, three corporate debtors are under process: Era Infra Engineering Limited (under CIRP), Lanco Infratech Limited, and ABG Shipyard Limited.

Source: Economic Survey, 2020-21, Vol II, p. 154, Government of India.

[33] At present, the 12 existing PSBs are: (1) Punjab National Bank (with Oriental Bank of Commerce and United Bank of India merged with it); (2) Canara Bank (with Syndicate Bank merged); (3) Indian Bank (with Allahabad Bank); (4) Union Bank of India (with Andhra Bank and Corporation Bank); (5) State Bank of India (with five of its associate banks and the *Bharatiya Mahila Bank* merged in 2017); (6) *Bank of Baroda; (7)* Bank of India; (8) Central Bank of India, (9) Indian Overseas Bank; (10) Punjab and Sind Bank; (11) UCO Bank; and (12) Bank of Maharashtra.

Table 18: NPA Ratio and Provision Coverage Ratio: Pre- and Post-Merger

	Net NPA Ratio (%)		Provision Coverage Ratio (%) (without write-off adjusted)	
	March 31, 2020 (pre-merger)	June 30, 2020 (post-merger)	March 31, 2020 (pre-merger)	June 30, 2020 (post-merger)
Punjab National Bank	5.80		62.39	
Oriental Bank of Commerce	5.00	5.39	62.84	64.47
United Bank	4.88		66.86	
Canara Bank	4.18	4.08	50.20	56.27
Syndicate Bank	4.61		63.44	
Union Bank of India	5.49		64.37	
Andhra Bank	4.92	4.75	72.80	69.61
Corporation Bank	5.14		66.26	
Indian Bank	3.13	3.76	53.11	66.92
Allahabad Bank	5.66		70.18	

Source: Report on Trends and Progress of Banking in India 2019-20, Reserve Bank of India.

To sum up, the culmination of these efforts, i.e., the recognition and withdrawal of regulatory forbearance and the institution of the bankruptcy code, has helped address the NPA problem in India's banking sector.

Concluding Observations and the Way Ahead

We have, in this paper, assumed the roles of raconteurs of a single banking variable in India, i.e., the NPA-advances ratio, over the period covering the end of the 1990s till 2019-20. At the risk of over-simplification, the story that we have narrated so far may be recapitulated in terms of the following broad brush.

The extent of banks' nonperforming assets (NPAs) reflects the quality of their balance sheets and of the financial sector as a whole. It is, therefore, essential that the banking regulatory system is adequately designed to recognise the ongoing quality of assets on a regular basis. The health code for classifying banks' assets was first introduced in India in 1985, but it was nowhere close to the international practice. As the health code was first implemented in the early 1990s it was found that in public sector banks (PSBs), which comprised more than 90 percent of the banking system in India at that time, identified gross NPAs amounted to as much as 25 percent of their total advances. Evidently, it was necessary to undertake a major clean-up of PSBs' balance sheets through improved governance and regulation, while tightening the definition of impaired assets to international standards over a period of time. The code has been improved progressively ever since and is now broadly consistent with international standards.

Significant improvement took place almost continuously right through the 1990s and 2000s until around 2008-09, the beginning of the North Atlantic Financial Crisis (NAFC), when the gross NPAs of the PSBs reached a low of about 2 percent of advances, which was then lower than the comparable ratio for private sector and foreign banks. There was then a steep rise in the NPAs of PSBs once again until around 2018, to a high of 15.6 percent of advances. After the withdrawal of regulatory forbearance, passage of the Insolvency and Bankruptcy Code (IBC) in 2016, its implementation, and consequent policy process changes, this ratio began to trend down, reaching 11.9 percent by March 2020, just before the advent of COVID-19.

The question that remains a big puzzle is why there was such a significant deterioration in the performance of PSBs after around 2010, following on a continuous improvement over the previous 15 years.

Most narratives regarding the steep rise in the NPAs during 2020-18 relate to conjecture about the poor governance in these PSBs: but this is perhaps not wholly consistent with their good performance in the previous 15-year period. Was there a significant change in their style of governance and institutions between these two periods? There is little evidence of such a change having taken place.

The 2003-08 period was one of high growth for the Indian economy, accompanied by a benign phase in the global business cycles. The period was also characterised by very high annual credit growth of around 25-30 percent, which was followed by much lower credit growth after 2009-10. *It is these trends in bank lending that have given rise to the general view that NPAs after 2009-10 were essentially a consequence of exuberant lending in the prior period in an environment of poor corporate governance, and possibly corruption in PSBs.* It is indeed often true that when such high growth takes place in an economy and in bank lending, bankers do tend to exhibit a significant degree of exuberance, and bad decisions often result. Our research in this paper, however, demonstrates that the large NPAs that became evident later did not emanate in that high-growth period. We have, therefore, attempted to examine the data carefully in order to better understand what was behind this large generation of NPAs after around 2009-10. What are the broad concluding observations?

First, we find that the high credit expansion that took place during the 2000s was on a very low base: non-food credit comprised only around 25 percent of GDP in the early 2000s increasing to around 50 percent by the end of the decade, and then remaining relatively stagnant. Thus, the absolute magnitude of lending during the earlier decade was relatively small despite its high growth, and vice versa in the following decade: high magnitude of lending but with low growth.

Second, the high growth in the first decade of the 2000s was fuelled to a significant extent by new retail lending by PSBs, a segment that they had not addressed prior to the introduction of new private banks in India in the late 1990s.

Third, there was a large expansion of corporate sector lending in terms of absolute magnitude in the 2010s. The average annual expansion of lending to industry was around Rs 1,237 billion during 2003-04 through 2007-08, compared with Rs 2,725 billion during 2008-09 through 2014-15, more than double in absolute terms. Total corporate lending during 2003-08 was lower than some individual large NPAs that emerged later: the NPAs simply could not have originated in the earlier period.

Fourth, this lending included lumpy infrastructure loans to private sector corporates taking part in public private partnerships (PPPs), which had been promoted through public policy on infrastructure investment, and a number of large industrial projects. Some of the lending to PPP projects in sectors such as power, telecom, and roads was hit by a range of regulatory issues that emerged after these projects were started and after the credits had been disbursed. In the power sector, for example, various judicial rulings led to the cancellation of coal block allocations which adversely affected the private power projects that had been initiated. In the telecom sector, spectrum auctions resulted in very high prices which were essentially financed from borrowing by the private companies concerned, most of which was from PSBs.

Fifth, there were certain sectors like steel which did receive high doses of credit after 2009-10: some of these sectors suffered major downturns as a consequence of a large fall in international commodity prices subsequent to the North Atlantic financial crisis and the global economic downturn. Large NPAs emerged in these sectors, possibly due to no fault of either the borrowers or the creditors: essentially a result of a downturn in the global commodity business cycle.

Thus, there was a range of objective circumstances that could have led to the emergence of the large NPAs that have bedevilled the Indian financial sector over the past decade. Some of this was also a consequence of conscious public policy promoting lending to certain sectors that were regarded as important for promoting economic growth. It is of course true that, over the same period, private sector banks did not fall prey to lending to sectors that public policy was promoting. The question that arises, therefore, is whether the generation of such bad lending was a consequence of poor public policy or of poor governance in PSBs – poor decision-making and assessment capacity, and possibly corruption and government behest.

The issues raised in this paper suggest that the roadmap for financial sector reform and restructuring of PSB governance need to be informed by more careful empirical work to understand what led to the generation of such large NPAs in the Indian banking system. The key question is: how much of it was due to poor governance, decision-making, skills, etc., in PSBs and how much due to poor public policy and objective circumstances. If it was due to poor governance, it needs to be determined why this was not an issue during the long period between around 1995 and 2010?

What would be useful in this exercise would be a close analysis of the 50 to 100 largest corporate cases that have been referred for resolution through the IBC. It should then be possible to understand what led to these bad assets: the commodity price fall of the early 2010s; other business cycle issues; regulatory problems that arose in some infrastructure sectors; specific challenges such as the large spectrum auctions; or lending prompted by public policy promotion of certain sectors. The cases that do not fall into any of these categories can then be classified as arising from behest lending, poor governance, poor skills, and management errors.

More recently, the NPA scenario improved during 2018-19 through 2019-20, reflecting various policy measures and establishment of institutions, such as the withdrawal of regulatory forbearance, setting up of the National Company Law Tribunal (NCLT) and the Insolvency and Bankruptcy Board of India (IBC). This apart, in line with the announcement made in the Union Budget 2021-22, the government has proposed to privatise two PSBs. The so-called “Bad Bank” has got all the requisite approvals: it is being set up in the form of a dual institutional structure involving the National Asset Reconstruction Company (NARCL) and the India Debt Resolution Company (IDRCL). It has been reported that in its first phase, stressed assets of more than Rs 50,000 crore across 15 accounts will get transferred to the NARCL before the end of March 2022. The NARCL had identified NPAs worth Rs 2 lakh-crore, of which it has begun to take up Rs 82,845 crore across 38 accounts. While NARCL will acquire and aggregate the identified NPA accounts from banks, IDRCL will handle the debt-resolution process. Effectively, NARCL and IDRCL will have a principal-agent relationship. Besides, the Government has also issued the Notification for setting up of the NaBFID. It will be set up as a corporate body with authorised share capital of Rs one lakh crore. Initially, the central government will own 100% shares of the institution, which may subsequently be reduced up to 26%. The major functions of NaBFID will involve extending loans and advances for infrastructure projects; taking over or refinancing such existing loans; attracting investment from private sector investors and institutional investors for infrastructure projects; organising and facilitating foreign participation in infrastructure projects; and facilitating negotiations with various government authorities for dispute resolution in the field of infrastructure financing. While these are reforms in the right direction, a lot will depend on the reaction of the market and the extent of successful implementation of these policy measures. Admittedly, there have been consequent improvements in the NPA situation in 2020-21 when the gross NPAs of scheduled commercial banks decreased to 6.9 per cent at end-September 2021 from 9.3 per cent in September 2019. Nevertheless, the pandemic that has hit the country since end-March 2020 could cause some temporary reversal in the improvement of NPAs In the days to come.

The stimulus package announced has substantial elements of credit guarantees and associated regulatory forbearance:

- The IBC has been suspended for one year since the COVID-19-related lockdown was imposed in March 2020.
- In its place, the RBI has introduced a limited restructuring scheme for COVID-19-related stress.
- The Insolvency and Bankruptcy Code (Amendment) Ordinance, 2021, was promulgated on April 4, 2021, which provides a time-bound process (within 330 days) for resolving the insolvency of corporate debtors, which has been termed the corporate insolvency resolution process (CIRP). The ordinance introduces an alternate insolvency resolution process for micro, small, and medium enterprises (MSMEs), called the pre-packaged insolvency resolution process.

With all these measures, the macro stress tests of RBI have indicated that the NPA ratio of scheduled commercial banks may increase from 6.9 percent in September 2021 to 8.1 percent by September 2022 under the baseline scenario; and to 9.5 percent under a severe stress scenario (RBI, 2021). SCBs, however, are assessed to have sufficient capital, both at the aggregate and individual levels, even under stress. However, with pandemic-related policy measures like credit guarantees and some regulatory forbearance, and the slowdown in growth, 2020-21 could experience some more deterioration in NPAs.[34] Thus, the real health of the banking system will become clear only after the pandemic finally subsides and another AQR-type exercise is implemented.

As and when the influence of the spectre of the pandemic recedes substantially, with the host of new policy initiatives, it is hoped that the Indian banking system will be better equipped to deal with whatever emerges. When a more definitive and detailed data-driven history of the Indian NPA problem is written, with micro stories as its constituents, it is expected to reveal that the NPA problem, despite having elements of a scam, was much more systemic in nature. In retrospect, it could be said to have elements of Agatha Christie's *Murder on the Orient Express*; there was not one but multiple murderers, each playing its own role to near-perfection. The ongoing financial sector and banking reforms, especially those related to banking governance and resolution of NPAs, need to be informed by such deepened understanding.

[34] Recognising that the second wave of the pandemic could pose difficulties in loan servicing, the RBI announced the Resolution Framework 2.0, allowing the "restructuring of loans taken by individuals, small businesses and MSMEs with an exposure cap of ₹25 crore". There were other measures as well, i.e., fresh lending to MSMEs was allowed with equivalent exemption from the cash reserve ratio (CRR); and banks were could use 100 percent of the countercyclical provisioning buffer for making specific provisions for NPAs.

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