The Slow Path to Bank Reform

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The Government of India's recent announcement providing for a large recapitalisation of its banks, a consequence of deeply problematic loan quality, impacts the Government's fiscal consolidation. The paper analyses the loan quality malaise, proposes a set of reform measures which are sensitive to behavioural and governance issues, examines the merits of other reform measures which have been proposed, and assesses the impact of certain recent interventions by the Government. It concludes that, short of privatisation, a fundamental reordering of the relationship between the Government and its banks is needed, if these problems are not to periodically resurface.

1. The Loan Quality Malaise

The worsening loan quality of a large part of India's banking sector has been common knowledge for some years. For the government banks the decline has been precipitous. During this period, and until very recently, there has been little indication from the Government of India about how, and to what extent, it intends to recapitalise the banks it owns and controls. The silence was finally broken in October 2017 with the announcement of a proposed Rs. 2.11 tr equity capital injection over two years into these banks and the assurance of banking reforms.[2] Details of these reforms are yet to be announced.

This paper analyses the asset quality position of India's banking sector, and argues in favour of a specific set of reform measures. India has now had close to fifty years of state capitalism in banking, and while in the past there have been multiple stated objectives to justify government ownership, unless the continuance of ownership is viewed predominantly from the lens of an adequate financial return on taxpayers funds, and banks are managed so as to enable this, threats to fiscal stability will get aggravated. India's political economy, long used to encasing government banks with a public goods character, has demonstrated that successive governments are unable to seriously contemplate privatisation, or indeed to reduce ownership stakes in banks to less than 50 per cent.[3] If these banks accordingly continue to be government owned, but their reform does not hold out the promise that clearly defined and improved productivity metrics will be realised, the Government will be on a fiscal rollercoaster. State capitalism in banking necessitating large government investments bereft of financial returns is now unsustainable.

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[2] Of this Rs. 1.35 tr. will be funded through Bank Recapitalisation Bonds (bonds issued by the Government or its agency and invested into by banks to the extent of fresh equity investment received from the Government), Rs. 180 bn. through Government budgetary support, and Rs. 580 bn. through others in the market. The recap bonds clearly add to the Government level of debt and the fiscal deficit (when defined as expenditures net of non-debt revenues). The instrument has been used in the past to recapitalise banks.

[3] The fiscal imperative has received insufficient attention in the debate on bank privatisation, though it explains why it took the Government so long to announce its recapitalisation package. Critics of privatisation argue – correctly – that private sector banks globally can hardly be viewed as beacons of good risk management having generated periodic financial crises, though the focus then shifts to the adequacy of regulation. Unlike in most other countries, however, in India the counterfactual can be tested, as there are banks in the public and private sectors, and most metrics in the last 15 years demonstrate average superior performance for the latter.

Symptomatic of these difficulties, and of the delayed announcement of the recapitalisation of banks, is the issue of how well the Government and RBI are fully aligned in the matter of realistic loan provision recognition and recapitalisation. If the alignment were smooth, decisions on the tightening of impaired loan recognition standards and adequate provisions as stipulated by RBI would be taken in tandem with Government shareholder decisions on recapitalisation. In recent years RBI has sought to restrict regulatory forbearance in the recognition of non-performing assets (the instruments of forbearance comprising myriad forms of loan restructuring), and by early 2017 had withdrawn all such forbearance for prospective impaired loans.[4] The consequent greater realism in loss recognition is to be welcomed, but the higher provisions also imply that the capital of banks erodes more rapidly. The Government's inability to immediately recapitalise its banks clearly reflected its own fiscal compulsions.[5]

At the present juncture, ahead of the recapitalisation, several government banks are also technically insolvent with severe erosion in their equity, adding a layer of depositor confidence risk. Insolvency situations in financial firms often manifest themselves as illiquidity to begin with, and experience elsewhere has demonstrated that when confidence abates the prospect of illiquidity rises and depositors then begin closing their accounts. The proximate causes of this are often innocuous, and might in hindsight appear puzzling; but when loss of confidence gains ground it is liable to become self-fulfilling.[6] A commonly held view in India is that this is unlikely in public sector banks because of the government shareholding and the depositor trust this generates, and indeed the few isolated examples of bank depositors closing their accounts through herding in the last two decades have involved private sector or cooperative banks. However, the presently recorded impaired assets and consequent falls in capital adequacy for public sector banks have never earlier been as acute in India's modern banking history. Financial panics elsewhere also demonstrate that in such situations a weakness in an individual outlier bank could snowball into a systemic crisis. It would be prudent therefore not to put the commonly held view to the test!

2. Loan Quality Data

Table 2.1 demonstrates the decline in bank loan quality since 2011, separately for government banks and for banks in the private sector.[7] For the former the decline has been steep, with the proportion

[4] Forbearance has taken several forms, known to bankers by their acronyms and numerals: CDR (corporate debt restructuring), SDR (strategic debt restructuring), S4A (scheme for sustainable structuring of stressed assets) and 5/25 (extending loan maturities to 20-25 years to match expected cash flows, while refinancing them every 5-7 years), among others.

[5] The uncertainty on whether the Government and RBI are collaborating or working to different mandates lends a 'prisoner's dilemma' flavour to the emergence of outcomes.

[6] This is at the core of the multiple equilibria models of financial destabilisation based on expectations changes, proposed by Diamond and Dybvig (1983), which argued that even healthy banks could be subject to panics on account of assets being illiquid and long term, but liabilities being liquid but short term. The game has multiple Nash equilibria, paraphrased as depositor expectation changes becoming self-fulfilling. While the model has spawned an extensive literature with extensions to the manner in which deposit insurance, constrained central bank intervention, credit freezes, expectations of loan fire sales, and direct bailouts could modify the model's conclusion, its applicability to Indian public sector banks needs further enquiry. Indian law provides no explicit deposit guarantee for public sector bank deposits above a value of Rs 100,000 per depositor per bank, and the assumed implicit guarantee above this threshold is essentially political.

[7] All data as at end-March, unless otherwise stated. Impaired loans are the sum of gross NPLs and restructured loans. A loan is an NPL if it is 90 days overdue in payment of interest or principal instalment. For several years RBI has permitted banks to restructure loans, prior to their becoming NPLs, and has provided forbearance in not categorising such loans as NPLs. Any prudent definition of impaired loans would need to include such restructured loans.

of impaired loans being 4.67 per cent in 2011, rising to 10.84 per cent in 2013, and further climbing to 19.53 per cent in 2017. Recorded gross NPLs for these government banks rose from 2.07 per cent in 2011 to 13.08 per cent in 2017, and further worsened to 14.40 per cent in September 2017. In 2017 the provisions held by these banks were woefully low at 15.04 per cent of impaired loans and 21.95 per cent of gross NPLs. The contrast with private sector banks is striking. (In 2017 impaired loans of 5.70 per cent in March, gross NPLs of 4.22 per cent in September, and a provisions cover of 28.29 per cent of impaired loans and of 40.48 per cent of gross NPLs). Although the provisions held against impaired loans by private sector banks is still low, average loan quality is not worrisome, even if the recent impairment rise in some outlier banks has raised concern.

Table 2.1: Loan quality and provisions held

	Sept 2017	March 2017	March 2015	March 2013	March 2011
Public Sector Banks Impaired Loans %	-	19.53	14.92	10.84	4.67
Private Sector Banks Impaired Loans %	-	5.70	5.67	4.34	3.22
All Banks Impaired Loans %	-	13.34	10.89	8.10	4.05
Public Sector Banks Gross NPL %	14.40	13.08	5.17	3.30	2.07
Private Sector Banks Gross NPL %	4.22	3.65	2.46	1.77	2.08
All Banks Gross NPL %	9.70	8.73	3.99	2.65	2.08
Pub. Sec. Bks. Impaired Loans Coverage %	-	15.04	8.07	8.48	20.67
Pvt. Sec. Bks. Impaired Loans Coverage %	-	28.29	15.66	17.57	21.89
All Bks. Impaired Loans Coverage Ratio %	-	20.56	11.37	12.32	21.19
Pub. Sec. Bks. NPL Coverage Ratio %	-	21.95	22.87	28.28	39.67
Pvt. Sec. Bks. NPL Coverage Ratio %	-	40.48	30.85	37.62	30.31
All Bks. NPL Coverage Ratio %	-	29.67	26.34	32.22	35.72

Source: RBI statistics and Banks' quarterly results for September 2017

As Table 2.2 indicates, in 2011 the return on assets for public sector banks was 0.99 per cent while in March and September 2017 it had turned negative, indicative of these banks in the aggregate having made losses. In contrast, the return on assets of private sector banks in 2011 was 1.17 per cent, and had fallen more gently to 0.72 per cent in September 2017. Return on equity too dipped marginally from 13.82 per cent to 13.17 per cent between Match of 2011 and 2017 (but then plummeted to 9.16 per cent in September 2017). This divergence between the two sets of banks is reflected in the average government bank net interest margin (NIM) in September 2017 of 2.38 per cent being a significant 35 per cent lower than the average private sector bank NIM of 3.68 per cent. Similarly average fee income as a proportion of operating income in 2017 was 9.41 percent for government banks and 14.11 per cent for private sector banks. Government banks therefore earn both lower NIMs and a lower proportion of fees than their private sector counterparts.

Table 2.2: Bank productivity indicators

	Sept 2017	March 2017	March 2015	March 2013	March 2011
Public Sector Banks Return on Assets %	- 0.45	- 0.16	0.40	0.73	0.99
Private Sector Banks Return on Assets %	0.72	0.88	1.08	1.29	1.17
All Banks Return on Assets %	0.07	0.33	0.69	0.98	1.06
Public Sector Banks Return on Equity %	- 3.79	- 4.41	6.87	12.52	17.52
Private Sector Banks Return on Equity %	9.16	13.17	10.54	15.22	13.82
All Banks Return on Equity %	2.43	3.03	8.56	13.68	16.01
Public Sector Banks Net Interest Margin %	2.38*	2.34	2.27	2.49	2.79
Pvt. Sector Banks Net Interest Margin %	3.68*	3.46	3.01	3.03	3.17
All Banks Net Interest Margin %	2.94*	2.70	2.55	2.67	2.85
Pub. Sector Banks Fees/Operating Profit %	-	9.41	10.80	11.19	12.21
Pvt. Sector Banks Fees/Operating Profit %	-	14.11	15.51	14.99	16.33
All Banks Fees/Operating Profit %	-	11.51	12.79	12.84	14.00

*For the quarter ended September

Source: RBI statistics and Banks' quarterly results for September 2017

Table 2.3 demonstrates that several public sector banks are consequently now acutely short of capital with a potential threat to financial stability. Tier 1 capital in September 2017 was 8.66 per cent (in contrast it was 13.11 per cent for private sector banks, 51 per cent higher). Total capital adequacy differences are also striking: 11.49 per cent for public sector banks as against 14.30 per cent for private sector banks in September 2017. The quality of capital is also inferior in public sector banks, with Tier 1 capital constituting 75 percent of total capital, in contrast to 92 percent for private sector banks.

Table 2.3: Capital adequacy

	June 2017	March 2017	March 2015	March 2013	March 2011
Pub. Sec. Banks Capital Adequacy Ratio %	11.49	11.75	11.29	12.04	13.37
Pvt. Sec. Banks Capital Adequacy Ratio %	14.30	13.75	14.07	14.72	16.80
All Bks. Capital Adequacy Ratio %	12.79	12.68	12.50	13.20	14.86
Pub. Sec. Banks Tier 1 Ratio %	8.66	8.96	8.49	8.63	8.96
Pvt. Sec. Banks Tier 1 Ratio %	13.11	12.55	12.42	12.15	14.27
All Banks Tier 1 Ratio %	10.58	8.96	10.20	10.16	11.27

Source: RBI statistics and Banks' quarterly results for September 2017

Moreover, as Table 2.4 indicates, these averages camouflage the precarious condition of outliers. Two government banks have impaired loans in excess of 30 per cent at March 2017, and the Tier 1 capital held by some of the other Government banks is also perilously low.[8] Where loans are severely impaired or capital adequacy unacceptably low, RBI places these banks under Prompt Corrective Action (PCA), putting the banks under stricter regulation and imposing restrictions.[9] Presently, six banks, all in the public sector, are under PCA regulatory surveillance.[10]

Table 2. 4: Outlier banks data for March 2017

Five Pub. Sec. Bks. with the Worst Impaired Loan Ratios %	**Five Pub. Sec. Bks. with the Lowest Tier 1 Capital %**
IDBI Bank – 32.07	IDBI Bank – 7.81
Indian Overseas Bank - 31.66	Indian Overseas Bank – 8.21
United Bank of India – 29.36	United Commercial Bank – 8.27
United Commercial Bank – 27.15	Allahabad Bank – 8.49
Central Bank of India – 26.61	Central Bank of India – 8.62
Five Pvt. Sec. Bks. with the Worst Impaired Loan Ratios %	**Five Pvt. Sec. Bks. with the Lowest Tier 1 Capital %**
Jammu & Kashmir Bank – 23.11	Jammu & Kashmir Bank – 8.70
ICICI Bank – 10.57	Lakshmi Vilas Bank – 8.75
Catholic Syrian Bank – 8.35	South Indian Bank – 10.90
Axis Bank – 7.95	RBL Bank -11.50
Karnataka Bank – 7.84	Federal Bank – 11.81

Source: RBI statistics

Two caveats are needed to this comparison based on ownership. First, there are recent indications that certain prominent private sector banks under-report their gross NPLs, and consequently their provisions for bad loans. RBI has this year initiated the need for disclosure by banks in their annual

[8] One private sector bank, Jammu & Kashmir Bank, also has an exceptionally high impaired loan ratio of 23.11 per cent. This bank has a majority ownership by the Government of Jammu & Kashmir, and there is a certain historical oddity in RBI classifying it as a private sector bank - on the apparent argument that it is not majority owned by the Indian Government.

[9] A revised PCA framework has been defined from this year under which indicators and risk thresholds have been specified under four areas: capital (breach of either the total or the common equity tier 1 capital adequacy ratio threshold), asset quality, profitability and leverage. There are three risk thresholds under PCA, each progressively more serious. A breach of Risk Threshold 1 results in restrictions placed on dividend distribution or other remittance of profits, of Risk Threshold 2 in restrictions also on branch expansion, and of Risk Threshold 3 on restrictions also on managerial compensation, among others.

[10] Central Bank of India, IDBI Bank, UCO Bank, Dena Bank, Indian Overseas Bank and Bank of Maharashtra.

reports wherever the divergence between a bank's report of its audited gross NPLs and RBI's subsequent audit exceeds 15 per cent at the end of the preceding year. Five private sector banks and one public sector bank have made such disclosures indicating divergences in gross NPLs as at March 2016. The highest variance was an incredible 558 per cent, casting scepticism on the validity of some of these banks' audited accounts.[11] Such annual disclosures can be expected to lower the divergences in future, though a few of the same banks continued to report very significant divergences as at March 2017.

A second caveat, separate but partly related to the first, arises from the possible 'ever-greening' of loan accounts, which also results in overstating profits. The extent of this is unclear, with murmurs of increasingly sophisticated ways being deployed to camouflage impending NPLs which regular audits may not unravel. There is possibly a greater incentive for private sector banks to resort to this practice because management stock option values are dependent on bank stock prices. In contrast, public sector bankers receive no stock options. A more vigilant and sophisticated supervisory regime within RBI than exists presently is needed to identify such practices, with stringent management and auditor penalties where ever-greening is detected. If such practices are indeed more prevalent in private sector banks, the divergence in performance based on ownership is less extreme than the data presented above suggests.[12]

Table 2.5: Sectoral credit growth in 2016-17

Sectors	**Growth in Public Sector Banks %**	**Growth in Private Sector Banks %**	**Growth in All Banks %**
Agriculture	8.45	22.25	11.87
Industry	1.95	20.41	4.01
Transport	5.78	15.08	10.62
Services	5.96	24.56	18.95
Retail	15.46	20.08	18.65
Trade	5.04	18.88	13.35
Finance	9.97	25.55	15.45
Others	3.05	20.79	16.65
Total Non-Food Credit	*2.78*	*25.12*	*8.01*
Total Credit	*3.22*	*20.58*	*14.28*

Source: RBI statistics

An inevitable consequence of the stress on the loan books of the government banks is that their growth has stalled. For the year ended March 2017, public sector banks' outstanding credit grew at 3.22 per cent, while for private sector banks outstanding credit grew at a much brisker 20.58 per cent. Sectoral credit growth details are contained in Table 2.5, and demonstrate that other than in retail credit, bank lending by the government banks is now very subdued. In the absence of the recapitalisation package recently announced, a business cycle upturn would have left the government banks ill-equipped to support financing needs of the economy.

3. Some Data Analysis

Yet another way of assessing the severity of the portfolio quality of those outlier banks with the worst impaired loans ratio (as indicated in Table 2.4) is to examine the quality of the companies they have lent to. It is also desirable to assess how far the capital assured by the Government will go in covering the capital shortage public sector banks now face. This Section provides estimates of both,

[11] In descending order of divergence, the private sector banks were Yes Bank (558 per cent), RBL Bank (163 per cent), Axis Bank (156 per cent), IndusInd Bank (71 per cent) and ICICI Bank (20 per cent). IDBI Bank (divergence of 27 per cent) was the sole public sector bank.

[12] The argument that India would do well to begin privatising its government banks also weakens with the recognition that poor governance characterises parts of private sector banking.

maps companies financed to resultant bank asset quality, and highlights the inadequacy of the Rs. 2.11 tr recapitalisation package recently announced.

(i) The twin balance sheet problem:

It is now well recognised that the worse loan quality of the government banks stems from the sectors and companies they have lent to. Sectors such as infrastructure (particularly power, construction and real estate), steel and (increasingly) telecommunications have seen particular distress. Several companies in this sector have faced major cash-flow problems and a consequent inability to service debt. This twin balance sheet problem, which correlates stress in companies with that of their financing banks, can yield useful insights. A recent study concludes that the brunt of the corporate credit crisis appears to be borne by state-owned banks.[13]

In order to examine this for the outlier banks, the Altman Z-score offers one way of demarcating between strong, weak and stressed companies, 'inverting' subsequently to analyse the impact these companies consequently have on stress levels in banks. This method is not free of limitations.[14] Table 3.1 provides the Altman-Z scores for the outlier banks. It is less the absolute scores than the fall in the scores that is relevant.[15] The significant deterioration in the public sector banks during the period 2011-2017 is evident.[16]

Table 3.1: Altman-Z Scores for banks with the worst impaired assets ratio

	2011	**2013**	**2015**	**2017**
Pubic Sector Banks				
IDBI Bank	2.29	2.20	2.53	1.99
Indian Overseas Bank	2.48	2.24	3.54	1.46
United Bank of India	2.53	2.05	1.14	1.96
United Commercial Bank	2.31	2.07	1.48	1.01
Central Bank of India	2.80	2.12	1.64	1.25
Private Sector Banks				
Jammu & Kashmir Bank	2.60	2.22	2.25	3.11
ICICI Bank	2.33	2.50	3.76	1.93
Catholic Syrian Bank	2.50	2.95	1.24	2.61
Axis Bank	3.12	3.35	2.74	2.13
Karnataka Bank	2.81	3.71	1.98	2.47

[13] Ansari, Khandelwal and Prabhala (2016) report that between 2011 and 2015, while the debt-equity ratio of the country's 100 most indebted firms increased by just 5 per cent (from 0.49 to 0.52), their interest coverage ratio dropped by 40 per cent (from 3.70 to 2.15), and that the sharp decline in interest coverage in the face of relatively minor changes in leverage indicates the diminished debt servicing capacity of these companies. Further, the most indebted firms, comprising over 90 per cent of the debt owed by listed firms, are less able to service debt in 2015 than in any previous year. The 25th percentile, representing a quarter of the borrowers, had an interest coverage of 0.86 in 2015, and several borrowers could not cover half their interest expenses.

[14] The analysis uses the CMIE Prowess database, accessed for all companies which have bank debt. However, as the database does not indicate the extent of debt from individual banks, an equal weighting for bank exposures to individual companies has been assumed. This considerably reduces the accuracy of the Z-scores for individual banks, but arguably captures time-series trends with greater accuracy.

[15] Altman's own characterisation of companies places Z-scores of less than 1.22 as stressed, of more than 2.9 as of high quality, and of intermediate scores between these two numbers as of low quality.

[16] For the private sector banks ICICI Bank and Axis Bank have seen a steep deterioration during the period 2015-2017. The Z-score rise for Jammu & Kashmir Bank in 2017, despite its poor loan quality, is a puzzle.

(ii) Government Banks Capital Adequacy at the Onset of Basel 3:

Indian Banks need to be compliant with Basel 3 as at end-March 2019. On the assumption that the capital now assured of Rs. 2.11 tr will be invested by that date, together with certain other assumptions, the Tier 1 capital position at that date for the five most capital-starved banks, as also for all public sector banks, is estimated in Table 3.2.[17] Basel 3 requires banks to have Tier 1 capital, inclusive of a conservation buffer, of 9.5 per cent on that date. While the Government has yet to indicate the basis upon which individual banks are to be allocated capital, Table 3.2 assumes this would be done pro-rata based on the difference between the minimum 9.5 per cent Tier 1 needed at March 2019 and the expected capital on that date after prudent provisioning for impaired loans is made. As the last row in Table 3.2 indicates, despite the injection of Rs 2.11 tr, public sector banks in the aggregate will still be short of Tier 1 capital by an estimated Rs. 3.40 tr, and indeed the net worth expected at March 2019 will be 16 per cent lower than the net worth at March 2017, indicative of the burden of backlog provisioning on existing impaired assets.[18] State Bank of India, the country's largest bank by asset size, will be short by Rs. 599 bn. The Tier 1 shortfall for government banks in the aggregate will be 59 per cent of the Basel 3 requirement at March 2019. Unless impaired loans are proposed not to be adequately provisioned, another major recapitalisation will be needed.

Table 3.2: Capital requirements at the onset of Basel 3 (Rs. bn)

Five most capital starved banks	Risk-weighted assets (Mar 17 Actuals)	Risk-weighted assets (Mar 19E)	Net worth (Mar 17 Actuals)	Imputed Net worth after adequate provisioning for impaired loans (Mar 17)	Net worth after fresh capital and two years of net profits (Mar 19E)	Net worth needed to comply with the Basel 3 9.5% Tier 1 (Mar 19E)	Tier 1 shortfall (Mar 19E)
SBI	19353	21288	1238	906	1423	2022	599
BoI	3504	3854	134	-43	69	366	297
IDBI Bank	3015	3317	78	-88	22	315	293
PNB	4327	4759	250	72	189	452	263
BoB	3717	4089	287	115	181	388	209
All Pub. Sec. Bks.	58339	64172	3186	1056	2692	6096	3404

4. Behaviour and Governance in Public Sector Banks

Amidst the misjudgements in loan approvals which are an integral part of the the credit risks which banks face, part of the reason for the significantly higher loan impairment in the public sector banks can be attributed to governance issues arising out of the Government's control of these banks. Not

[17] The other assumptions are (1) that risk-weighted assets (RWA) will show zero growth in the year ending March 2018 and will grow at 10 per cent in the year ending March 2019; (2) that the gross NPL/RWA percentage will be 1 per cent more than the three-year average up to March 2017, while the restructured loan/RWA percentage will equal the three-year average for that period; (3) that non-performing loans will require an average 50 per cent provision while restructured loans will require an average 15 per cent provision, and this additional provision would also need to be imputed for March 2017 as a measure of prudence; and (4) that return on equity and payout ratios for each bank during the two years 2017-19 will equal its three year average till March 2017.

[18] The estimate is based on the equation: Networth at Mar 19E = Networth at Mar 17 – Additional provision imputed for impaired assets at Mar 17 + Rs. 2.11 tr + Retained profit for two years ending Mar 19E based on recorded profit in the past three years – Additional Provisions to be imputed for the the two-years ending Mar 19E in order that the provisioning level is prudent.

moving decisively on governance risks a recurrence of fresh impairment at unacceptable levels even though a significant capital infusion is now proposed for these banks.

The environment for managerial decisions and action differs so strikingly between public sector banks and their private sector counterparts, despite their lines of business being broadly similar, that it is surprising that the Government (in its role as the principal shareholder of banks) has not articulated more sensitively how this might affect the competitiveness of its banks. The differences encompass the laws under which they function, the nature of regulation, board ecology, CEO appointments, managerial compensation, criminal proceedings against managers where dishonest practices are suspected, support for social welfare and anti-poverty programmes, and much else besides. Several strategic decisions have been routinely taken by the Government and made applicable to all its banks. Government banks thereby get homogenised; if differentiation is a prerequisite to the search for competitiveness, the Government undermines it. A more detailed examination of how this process has unravelled exists elsewhere.[19] There are two implications:

(i). A Behavioural Theory of the Public Sector Bank:

Differing statutes to control governance and regulation, the consequent dual regulation of public sector banks, and the manner of appointment of board members, are useful starting points for an understanding of how different the decision-making environment for the government banks is. For private sector banks, the governance law is the Companies Act administered by the Government, while the regulatory law is the Banking Regulation Act administered by RBI. Other than two banks, all other public sector banks are licensed, governed and regulated by what is loosely referred to as the Bank Nationalisation Act.[20] In addition the Banking Regulation Act is also applicable to these banks, implying that these banks are subject to dual regulation. Their boards have no say over board member selection, which is the prerogative of the Government, and directors are consequently periodically air-dropped on to these boards. Unsurprisingly, bank CEOs often develop an ambivalent view about the usefulness of some board members, and political patronage in their selection has been routinely alleged over the years. CEO selection is also generally devoid of a search process, and CEO tenures on average are much shorter than in the private sector banks. Senior management is also subject to vigilance enforcement by Government agencies, which are typically known to investigate lending decisions which lead to losses from the viewpoint of whether procedural mistakes have been committed, rather than detecting evidence of managerial self-benefit; this leads intermittently to high risk aversion in loan sanctions. All this reduces managerial empowerment, subordinates business objectives to the needs of other requirements, reduces board effectiveness, and distracts management attention away from striving for business competitiveness.

RBI has been discouraging of private sector banks having large block shareholders, so the focus of shareholder accountability of their boards is more distributed, and its nature possibly more amorphous in the absence of activist shareholders[21]. Government banks have a single block

[19] Report of The Committee to Review Governance of Boards of Banks in India, commissioned by RBI [Nayak Committee (2014)], whose ideas this paper also draws upon.

[20] The Banking Companies (Acquisition and Transfer of Undertakings) Acts of 1970 and 1980, reflecting the two bursts of nationalisation of banks which occurred. In addition, State Bank of India operates under separate legislation, the State Bank of India Act 1955, while IDBI Bank is incorporated under the Companies Act.

[21] From 2004 RBI imposed a 5 per cent equity cap on a single financial investor, which could be enhanced to 10 per cent with RBI approval. In 2015, both these limits were raised by 5 per cent. Promoters or controlling shareholders are also expected to reduce their shareholding to 15 per cent or less within a specified period, though in some cases this has been poorly enforced. (Examples: Yes Bank and Kotak Mahindra Bank). Consequently, where promoter-shareholders continue to hold these large stakes, these banks are then legitimately seen as steered by the promoters rather than being truly board managed. Most private sector banks do not however have such block shareholders.

shareholder to whom accountability has daily resonance, minority shareholder rights are often subordinated, and the elaborate rituals of shareholder meetings are undertaken largely for the sake of form. It has to be that way when most strategic decisions are taken by the Government, unlike in the case of private sector banks. A Behavioural Theory of the Public Sector Bank, necessary in order to comprehend what are evidently differing management styles, would need to incorporate all these differentiating factors.[22] It would be unsurprising if these factors did not alter the manner in which the government banks are run, with implications for business acquisition, productivity and competitiveness.

A substantial reason for the Government–public sector bank interface being structured in this manner is that while block investors in the private sector would judge enterprise performance by return on equity earned and other productivity metrics, the Government appears not to be guided by the returns which tax-payers earn on these investments in banks. As the Government might have several other objectives for owning banks, investment returns recede in importance. For state capitalism within banking to be sustainable in this fashion, the Government would need to periodically inject capital irrespective of returns, or else see the growth of its banks slow down, lose their better customers to faster growing private sector banks, find their credit ratings slip and their cost of funds rise, and eventually risk becoming zombie banks.

(ii). Improving Governance:

Public sector banks face both external governance constraints (generally imposed by the Government) and internal constraints which require managerial reforms. It is unlikely that there can be progress on the latter without changes in the former. The privatisation of banks offers the most credible way of unwinding these external constraints. In its absence, and until a politics conducive to privatisation develops, a framework for unwinding the external constraints which confront these banks is provided below:

1. Provide a single uniform regulatory system for all banks, irrespective of ownership. The law for this, the Banking Regulation Act, would constitute the only regulatory law. The Government would cease to exercise any regulatory powers.[23] This would provide a level playing field on regulation.

2. Provide a uniform governance law for all banks, irrespective of ownership. The Companies Act would constitute the sole governance law. The Bank Nationalisation Act would then need to be repealed and government banks converted from organisations under statute into companies. This would provide a level playing field on governance.

3. Focus on financial returns as the primary metric of judging bank performance. For this purpose it would be helpful to create a holding company for the government banks, which operates as a sovereign fund focused on returns. Such a holding company would take over powers to manage banks presently vested in the Government, with the authority to transfer

[22] There appears to be no research which examines the management behaviour of public sector banks from this perspective, even though several insights emanating from the Behavioural Theory of the Firm appear relevant. Concepts of relevance include compromises negotiated by groups, organisational slack, focus on the decision-making process rather than on outcomes, hierarchy formation, and 'satisficing' behaviour under uncertainty. The literature however focuses on business enterprises where ownership and management are separated. For India's government banks, the nexus is much closer, and would need adaptation. Cyert and March (1963) and Williamson (1975) are the standard references, building on the earlier work of Coase (1937) and Simon (1955).

[23] The Nayak Committee (2014) lists examples of such regulatory interventions from the Government.

these to bank boards. The holding company's performance would, in turn, be assessed based on the returns it earns on behalf of the the Government. This would reinforce the importance of financial returns on capital provided to banks by the Government. If the Government agrees to a minority shareholding in the holding company, with equity participation also being offered to other pools of capital, it would ease its fiscal burden to periodically recapitalise these banks.

4. The holding company's autonomy is the most radical bank reform which the Government needs to confront, as otherwise it merely adds a layer of bureaucracy to the management of banks. Other than the non-executive Chairman appointed by the Government, if all other directors are appointed on the basis of the holding company board's advice, and are independent, and if the CEO too is similarly appointed on the board's advice, the holding company's autonomy will get reinforced. This is a major departure from existing practice, and a clear signal of the Government's commitment to the reform of banking. Autonomy would need to be mandated in the articles of the holding company, and protected by the holding company'so board. If this is politically unacceptable, it is unlikely that major governance improvements will occur.

5. The holding company would assist government banks in placing professionals of good standing on their boards. As boards professionalise, several holding company powers will get transferred to bank boards, including future CEO and board appointments, and capital raising powers. This bank board empowerment would strengthen strategic decision-making within boards.

6. Over time, and dependent on each bank's loan quality and capital adequacy, the holding company will dilute its stake to below 50 per cent. A threshold of 33 per cent has been repeatedly proposed in the past, with the holding company continuing to be the largest shareholder.[24] The Government would thereby indirectly continue to be the single largest shareholder.

7. Such a minority shareholding for the Government would also set the stage for other changes, presently infeasible under law on account of the dominance of the Government stake: managerial compensation could be freed and decided by each bank board; external vigilance enforcement, through the CVC and the CBI, would be replaced by a board-monitored internal vigilance enforcement; and a level playing field would emerge between these banks and those in the private sector.

8. Finally, the Government's development agenda for its banks, supportive of its social welfare and anti-poverty programmes, would be made applicable to all banks, in order to be non-discriminatory, and would be enforced through RBI, in the manner in which priority sector lending or the Government mandatory borrowings from banks for the maintenance of the statutory liquidity ratio, are presently mediated through RBI. This too would ensure a level playing field for public sector banks.

This is an ambitious reform agenda, less daunting to votaries of state capitalism in banking than is privatisation. For the Government to grasp the nettle of such reform, it must be persuaded that less ambitious interventions are unlikely to succeed in restoring financial strength and competitiveness to public sector banks.

[24] The Narasimham Committee (1991) initially proposed this lower threshold. It has surfaced intermittently since, including as a budget announcement by the then Finance Minister in 2000 although it was not implemented.

5. Other Options for Reform

(i) Bank Consolidation:

In recent months the Government has also articulated its intent of consolidating the 21 public sector banks into a smaller number, and recent statements from Government spokesmen suggest that this might be the spearhead of reforms. A ministerial committee to oversee this has also been constituted, and this is therefore presumably being fast-tracked.

It is doubtful whether the several reasons motivating mergers in the private sector are applicable here: post-merger cost-cutting through staff redundancies and branch closures seems unlikely, given the vehemence of bank trade union opposition; the ability to merge a small weak bank into a stronger large bank is problematic when several large banks themselves have weakened, and one then ends up with an even larger weak bank, which would exacerbate risk; the potential gains from combining complementary business models appear unlikely, given how homogenised these banks have become through almost five decades of Government ownership; one impetus, the creation of a few global banks, could face headwinds of poor capitalisation in overseas jurisdictions, and uncompetitive pricing in raising funds given India's country rating; and the consequent likelihood arises that there will be no significant gains in combined profitability. Mergers would certainly provide administrative convenience to the Government in having to deal with fewer banks, but this appears to be an insufficient rationale for consolidation. Instead, mergers of public sector banks at this stage could possibly be a distraction, diverting focus from recapitalisation and issues of governance, while amplifying political noise and thereby possibly impacting depositor sentiment.

(ii) The Conversion to Narrow Banking:

Another reform initiative which periodically enters the policy debate is the conversion of the small, or very weak, government banks into narrow banks. Such narrow banks retain their deposit-taking function but substitute their lending function with investment into government securities. Several variants of such banks exist, the 'safest' being those where the securities are short-term and liquid, which also significantly lowers the liquidity risk of sudden deposit withdrawals. The proposal is based on scepticism that regulation can achieve bank safety, given the periodicity with which bank crises occur.

If a significant part of the government banking system gets converted to narrow banking, there will be a credit gap which will need to be filled by other banks. One criticism of narrow banking then is that the risks of lending then get transferred to other banks or to the less intensely regulated quasi-banking sector, whose credit risks consequently rise. The risks in lending do not diminish, they merely move elsewhere. (One mitigant proposed is the introduction of 100 per cent reserve banking, requiring all lending to be backed by equity capital, which also thereby provides depositor protection. No major regulatory jurisdiction has hitherto introduced this, and it is unclear that such banks would be commercially viable for investors).

Another criticism of narrow banking is that by separating the deposit-taking function (which is arguably in the nature of a utility) from the lending function into separate organisations, a principal function of the bank, which is to provide customers with a connect between the two functions, is broken. If a corporate customer cannot access credit from a bank, it is unlikely to keep its demand deposits (in the nature of transactions balances) with that bank. If a retail customer cannot obtain an overdraft for contingencies from a bank, she is likely to move to a bank which deems her an

acceptable credit risk. This interconnectedness between bank assets and liabilities is snapped with narrow banking.[25]

Such proposals have in the past been mooted elsewhere for private sector banks (and mandated in India for the recently licensed private sector payment banks) so that governments do not incur the liability of investing in such banks when bank runs occur. In the case of India's public sector banks, the intent to reduce the Government's financial liability is possibly better achieved through divestment or privatisation. A major objective of government ownership is control over the allocation of credit, and as this objective no longer applies to narrow banks, it is desirable to ask whether deposit mobilisation control is a sufficient reason for investing taxpayer funds.

6. The Impact of Other Recent Changes

There are three other sets of issues which have more recently acquired prominence for the manner in which they might either assist or complicate the renewed capitalisation and financial health of public sector banks.

(i) Insolvency and Bankruptcy Code:

In 2016 a new bankruptcy law was legislated which provides for speedy insolvency and bankruptcy decision outcomes to facilitate creditor rights being better safeguarded. An insolvency resolution process may be initiated by either the debtor company or by the creditors, and provides for the outcome to be completed in 180 days, which may be extended by another 90 days if a majority of creditors agree.[26] If the insolvency resolution process fails the company is placed under liquidation.[27] The code significantly alters the priority waterfall for the distribution of liquidation proceeds. Secured and unsecured financial creditors have higher priority over Government dues, unlike in the earlier law governed by the Companies Act.[28]

This is a major improvement in financial creditor protection, both substantive and procedural. New institutional arrangements, such as Institutional Resolution Professionals, have emerged. The new law is being put to the test. In June 2017 RBI mandated that banks initiate insolvency proceedings against 12 top defaulters, each having more than Rs 50 bn. of outstanding loans and accounting for 25 per cent of aggregate bank NPLs. In August 2017 RBI is reported to have similarly referred

[25] Theoretical work is also supportive of this view. Thus Kashyap, Rajan and Stein (1998) demonstrate that the costly overheads of banks arising out of holding cash and low-yielding reserves, are more efficiently handled in banks which carry out the deposit-taking and lending functions. Thus there are significant commercial synergies which are less efficiently handled when narrow banking is introduced.

[26] An insolvency plea has to be submitted to the National Company Law Tribunal (NCLT), which has to accept or reject the plea for adjudication within 14 days. If accepted, the tribunal appoints an Insolvency Resolution Professional (IRP) to draft within 180 days (extendable by another 90 days) a resolution plan. During this period the company's board stands suspended and company promoters have no say in the company's management unless the IRP seeks support.

[27] Failure could arise either because the creditors do not provide approval within the time stipulated, or because a 75% majority of creditors recommends liquidation, or because the NCLT rejects the resolution plan, or because the debtor contravenes the resolution plan. Thereafter, a moratorium is imposed on pending legal proceedings against the company debtor, and its assets (including the proceeds of liquidation) vest in the liquidation estate.

[28] The priority hierarchy is as follows: Costs of insolvency resolution (including interim finance); secured debt together with workmen dues for the preceding 24 months; other employee dues of the preceding 12 months; unsecured financial creditors; government debt and un-aid dues of secured creditors; other debt including of trade creditors; preference shareholders; and (finally) equity shareholders.

another list of 29 defaulters mandating that if banks cannot resolve these cases by mid-December 2017, the cases would similarly need to be referred to the NCLT[29]. RBI has also required banks to make provisions to the extent of 50 per cent of secured debt and 100 per cent of unsecured debt as soon as insolvency proceedings are initiated.

Two questions arise on the impact this might have on near term recovery prospects of loans under default. What is the likely realisation from such insolvency proceedings? And are courts likely to intervene? Very early evidence suggests that there is uncertainty on both counts.[30] Nevertheless, there is conviction and hope that the extensive delays earlier experienced will be cut short.[31]

(ii) Farm loan waivers:

Waivers on farm loans (crop production loans and investment loans for purchasing farm equipment) which some state governments have announced for alleviating distress among famers, are argued as being inimical to good credit discipline. Hitherto this year, three states have announced such loan waivers: Uttar Pradesh (UP), Punjab and Maharashtra. In terms of initial announcements (though coverage may however have changed subsequently) UP's debt waiver of Rs 3.64 bn is estimated at about one-fourth of the outstanding farm debt in that state. Punjab's debt waiver of Rs 1 bn is about one-seventh of the state's outstanding debt. Likewise, Maharashtra's debt waiver of Rs 3.05 bn represents about one-third of outstanding farm debt in that state. The total farm loan debt waiver of Rs 7.7 bn represents about 0.5 percent of India's GDP. There are several states facing elections in the next few months, including Gujarat, Himachal Pradesh, Karnataka, Madhya Pradesh and Rajasthan, and the possibility exists of loan waivers being announced in some of these states as well. It has been estimated that the impact of the waiver of 50 per cent of countrywide farm loans would amount to Rs 6.3 tr or 4 percent of GDP, and collectively worsen states' debt-to-SGDP ratio by 4 per cent.

Farm loan waivers therefore clearly leave a significant adverse impact on state government finances. The extent to which they affect loan repayment and overall discipline in the market for agricultural credit is less clear, and appears dependent on the periodicity with which such waivers are repeated. The criticisms include the slowing down of recoveries even from those not covered by the waivers and from those in a position to repay. Those who repay on time but would subsequently have been

[29] Banks have been fearful of recommending cases under the insolvency and bankruptcy law because losses that result may subject bankers to criminal investigation. RBI directing banks to refer specific cases is believed to provide a measure of protection to bankers against such investigation.

[30] Hitherto only one case, Synergies Dooray, has led to an insolvency order, with creditors receiving 5 per cent of the value of outstanding debt. However, the order has subsequently turned controversial, and may not represent a reliable benchmark of average write-downs that are likely, because the earlier dominant shareholders are alleged to be the indirect winning bidders. (The law has subsequently been amended to exclude such bidders). There have also been efforts made by promoter companies to challenge in law courts individual cases referred to the NCLT as also the constitutional validity of the new law. On the former, there is presently just one case, Jaypee Infrastructure, where an interim court stay is in operation.

[31] Ghosh and Salian (2016) report that under corporate debt restructuring with banks within a sample of 483 companies, only 13 per cent were successful, that the average duration of restructuring was 3.5 years, that lenders have borne the burden of restructuring with promoters bringing in little additional capital, and that higher resolution periods are associated with lower recoveries. Further, recoveries as a proportion of outstanding loans are 12.1 per cent in debt recovery tribunals, 17.1 per cent under SARFAESI, and 0.3 per cent in Lok Adalats. The World Bank (2017) observes that India takes 4.3 years on average to resolve insolvency with a recovery rate of 26 cents to the dollar. In comparison, other South Asian economies take 2.1 years and have a recovery rate of 32.6 cents. The time for completing proceedings is likely to contract sharply under the new insolvency and bankruptcy law.

eligible for waivers had they not repaid, also appear foolish to have paid.[32] The last major farm loan waiver occurred in 2008, when farm loans outstanding from small and marginal farmers were fully waived countrywide, while other farmers received a 25 percent waiver. Agriculture loans gross NPAs (as a proportion of advances to the agriculture sector) which accordingly fell to 2 percent in March 2009 on account of the Government compensation to banks, rose to 2.2 percent a year later and 3.3 percent two years later. This suggests that moral hazard from infrequent loan waivers is more benign than critics would envisage, and needs to be seen in the context of acute rural distress.[33] However, waivers also lead to substitution effects in credit markets as they do not cover informal credit which small and marginal farmers routinely avail of, with consequent distribution effects among borrowers.[34] Assessing the overall impact of farm waivers therefore must encompass these issues.

(iii) The impact of demonetisation on bank balance sheets and depositor portfolio allocations:

On 8th November 2016 the Government demonetised all existing Rs. 500 and Rs. 2000 currency notes, amounting to 86 per cent of the currency in circulation, and commenced releasing new notes in their place. The latter was gradual, and by end-March 2017 RBI data indicates that 74.3 per cent of the peak pre-demonetisation value of total currency in circulation had been reached.[35] While the wider debate on the impact of demonetisation is presently contentious, and specially the trade-offs between the near term discomfort for individuals holding currency or distress for small and informal sector businesses, and longer term benefits to the economy through curbing fake notes, terrorist funding and unaccounted income and wealth, or through encouraging digital payments, this paper focuses on certain aspects of its impact on bank balance sheets and depositor portfolio allocation.

The demonetised currency amounted to 69 per cent of reserve money (RM) and thereby imposed a drastic monetary shock. Its impact on broad money, M3, was more benign, with about 6.3 per cent of the latter being affected, and largely structural, with its composition altering. As currency owners exchanged old notes for new currency (the latter severely rationed for several weeks) and also for bank deposits, the currency/deposit (C/D) ratio of M3 initially fell rapidly, and banks' demand deposits swelled. In the absence of immediate lending opportunities (demonetisation occurred during a period of a fall in growth of the demand for credit) these deposits were in turn placed as excess reserves in government bonds, and government borrowings from the banks consequently rose. For a fortnight commencing the final week of November, RBI too absorbed all of the incremental deposits through a greatly enhanced level of mandatory reserves which banks had to place with it. As new currency was released by RBI, levels of bank deposits fell and the C/D ratio

[32] This is corroborated by empirical and theoretical studies. Mukherjee, Subramanian and Tantri (2017) show that debt waivers improve the loan repayment performance of distressed borrowers, while adversely affecting the loan repayment performance of non-distressed borrowers. Bolton and Rosenthal (2002) argue that because debt contracts are highly incomplete, unanticipated shocks can create significant distress for poor borrowers; and enforcing debt contracts where land is provided as security when weather conditions are adverse can generate inefficiencies due to loss of future production, as the farmer loses his land. They conclude that state contingent debt moratoria always improve ex-post efficiency and may also improve ex-ante efficiency when bad economic shocks are highly likely.

[33] Lending for agriculture also appears less stressed than in the rest of the banking portfolio. Farm loan NPLs at March 2017 were at 6.13 per cent of total NPLs (8.76 per cent for public, 2.48 per cent for private) while farm loans constituted 12.12 per cent of total outstanding loans (13.56 per cent for public, 9.89 per cent for private), implying that for public and private sector banks the agriculture credit portfolio is of superior quality compared to the rest of the loan portfolio.

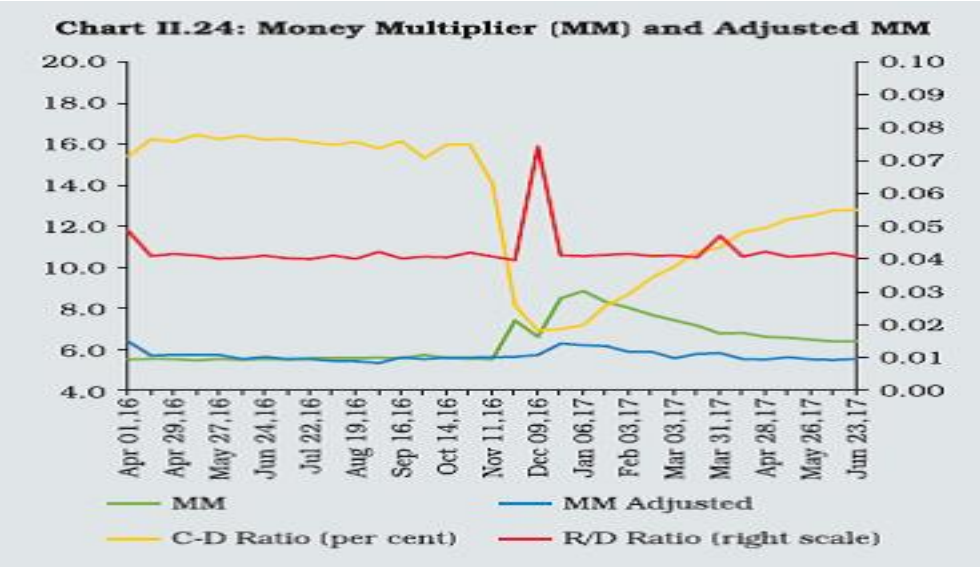
[34] The 2012-13 NSS-SAS indicates that 39 per cent of indebted agricultural households borrow only from informal sources.

[35] Reserve Bank of India (2017), from which much of the data is drawn.

within M3 again rose. RBI also observed in its Annual Report for 2016-17 that 98.96 per cent of the demonetised currency was returned.

From April 2016 till demonetisation (a period exceeding seven months) monetary conditions were generally stable. As Graph 6.1 indicates, the money multiplier (MM = M3/RM) showed very minor fluctuations around the value of 5.5, while the C/D ratio was also largely stable at about 16. The reserves/deposits (R/D) ratio hovered around 0.04.

Graph 6.1: Select Monetary Ratios



Source: Reserve Bank of India (2017)

Post demonetisation, MM rose from 5.5 to a peak of 8.8 in early January, then declined to about 7.0 at end-March 2017 and appeared to stabilise at 6.8 at end-June. Adjusted for net reverse repo transactions with banks (RBI borrowings from banks) MM peaked at 6.2 and fell to stabilise at 5.8 at end-March and end-June, much closer to its pre-demonetisation level. The R/D ratio also remained stable except in the fortnight when RBI raised its reserve requirements. However, the C/D ratio has been more volatile. From a value of 16.0 pre-demonetisation, it fell post-demonetisation to 7.0, then rose steadily to reach 12.0 by end-March and 13.0 by end-June. The growth in deposits post-demonetisation was tempered by the redemption of foreign currency deposits mobilised under RBI's swap scheme, the timing of which coincided with demonetisation.

Table 6.1 demonstrates that depositors held a lower proportion of currency in March and June 2017 than before demonetisation. It is very likely that this represents a currency-constrained portfolio allocation, given that at end-March 2017 currency in circulation was about three-quarters the level just prior to demonetisation. Bank deposits, after initially rising sharply, then falling more gradually, became more stable, and were at about the same level at the end of March and June 2017 as at just before demonetisation. Much credit needs to be given to bankers in being able to stabilise their liabilities in the face of an aggravated monetary shock, besides coping operationally with the conversion of old notes into new currency and bank deposits, in an environment where the supply of new notes fell far short of its demand.

As money can be endogenous to central banks (fiat money) or exogenous (created by commercial banks through lending, which before the utilisation of loan facilities vests as bank deposits), demonetisation could have offered a 'natural experiment' in how the new money got created. It is likely though that as credit growth fell steadily though the year ended March 2017, the contraction and subsequent expansion of broad money was largely a consequence of changes in reserve money

and in the money multiplier. The first is a policy variable, while the second represents depositor behaviour. Exogenous money creation through credit expansion is unlikely to have been significant.

Table 6.1: Monetary Aggregates

Item	Outstanding as on March 31, 2017 (₹ billion)	Year-on-year growth (per cent)		
		2015-16	2016-17*	2017-18 (as on June 23)
I. Reserve Money (RM)	19,005	13.1	-12.9	-5.6
II. Broad Money (M_3)	128,444	10.1	7.3	7.4
III. Major Components of M_3				
1. Currency with the public	12,637	15.2	-20.8	-12.6
2. Aggregate deposits	115,596	9.4	11.6	10.6
IV. Major Sources of M_3				
1. Net bank credit to government	38,691	7.7	21.0	14.1
2. Bank credit to commercial sector	84,514	10.7	4.7	5.7
3. Net foreign exchange assets of the banking sector	25,582	12.6	1.1	1.5
V. M_3 net of FCNR(B)	127,084	10.1	8.9	9.1
M_3 Multiplier	6.8			

Note: The data for RM pertain to June 30, 2017.
* : March 31, 2017 over April 1, 2016 barring for RM.

Source: Reserve Bank of India (2017)

Finally, there is the indirect impact of changes in the real economy on bank loan repayments that needs assessment, as they affect bank asset quality. Anecdotal evidence suggests that large sections of the informal economy, which is very reliant on cash for its transactions, were deeply affected and many businesses were perhaps also crippled by demonetisation and were closed.[36] Formal sector firms which transacted with the informal economy (such as micro-finance institutions) were also adversely impacted. As new cash replaced the old, many businesses might have recovered, but there is little documented evidence. The overall impact on bank asset quality requires banks to release more data before a sharper and definitive view can be pronounced.

7. Concluding Observations

The inadequate capitalisation of India's government banks heightens the tension between fiscal consolidation and the recapitalisation of these banks. It has been past practice that this tension has been eased each year by providing just enough capital to banks so as to ensure that their capital adequacy is above the regulatory minimum. The ferocious pace at which impaired assets have unravelled in very recent years, however, makes this approach increasingly unworkable. The paper argues that the backlog of provisioning, if prudently made, requires significantly more capital than the Government estimates, and that another round of funding will be needed before the onset of Basel 3 in March 2019. The Government will thereby get trapped within a vicious cycle of periodic large recapitalisation[37].

[36] Prasad and Singh (2017) analyse the impact that demonetisation had on the urban-to-rural remittance business by analysing monthly transactions data from Eko, a leading business correspondent firm focussed on such remittances. These remittances, which were earlier growing powerfully month-on-month at 15 per cent for the previous 18 months, fell dramatically by 50 per cent in November 2017, and plummeted further in December. However, remittances picked up thereafter and by March 2017 had recovered to their previous October level, though nowhere near the level that the earlier growth would have taken it to.

[37] The financial crisis of 2008, which resulted in sovereigns bailing out their banks, similarly trapped several governments, including Ireland, Iceland, Greece and Italy. Using credit default swap (CDS) rates on European sovereigns and banks, Acharya, Drechsler and Schnabel (2014) demonstrate how bank credit risk impacted sovereign risk. Further, the bank-sovereign loop operates both ways, with increased sovereign CDS rates impacting bank CDS rates, even after controlling for aggregate and bank-level determinants of credit spreads.

Some part of this situation has arisen for the specific reason that as the Indian economy grew strongly in the first decade of the new millennium, banks misjudged when the industrial slowdown would occur and made mistakes in the way they lent, both during and after this period. A more significant reason for the loan quality distress in public sector banks arises however from the manner in which the Government exercises control over these banks, the dual regulatory and governance environment within which these banks operate (unlike banks in the private sector) which impedes their competitiveness, and the impact this has had on managerial behaviour and thereby on bank business acquisition. Short of privatisation, a package of reforms is needed which fundamentally reorders the relationship between the Government and its banks if these problems are not to periodically resurface.

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