

I

PERSPECTIVES

The global banking reform agenda made further progress in 2017-18. In India, the Reserve Bank ushered in a revised framework with the insolvency and bankruptcy code as the focal point in pursuit of declogging of banks' balance sheets from overhang of stressed assets. Going forward, issues such as recapitalisation, improvement in banks' corporate governance, implementation of Ind-AS and containment of cyber security risks may assume prominence.

I.1 Global growth has shed some momentum in 2018 in an environment of volatile crude prices, geopolitical tensions and escalating trade wars. Financial conditions—especially in the emerging market economies (EMEs)—have tightened with capital outflows and asset price volatility sparked by interest rate increases, balance sheet normalisation by the Fed and some evidence of shortages of US dollar liquidity. Across the world, alignment of national regulatory and supervisory architectures with Basel III standards progressed, *albeit* at varying speeds in different jurisdictions.

I.2 Domestically, a pick up in GDP growth took hold in the first half of 2018-19, having shrugged off the transient effects of demonetisation and implementation of the goods and services tax (GST), and supported by incipient firming up of the investment cycle and exports. While provisioning against the overload of deterioration in asset quality pulled down the banking sector into losses in 2017-18, a strong revival in bank credit growth during the first half of 2018-19 by private and public sector banks (PSBs) suggests that an overall improvement in the health of banks is on the cards. Hearteningly, credit to industry—which constitutes the major

share in the aggregate—has picked up steam after depressed conditions in the previous year. Stressed assets of scheduled commercial banks (SCBs) have begun to stabilise, *albeit* at an elevated level, capital positions have been buffered and the provision coverage ratio improved to 52.4 per cent by end-September 2018. These developments augur well for the banks and other financial intermediaries in the economy as they struggle to regain the loss of momentum in the preceding six years.

I.3 One segment of the Indian financial system that has been growing robustly in spite of the adverse macro-financial environment is the non-banking financial companies (NBFCs) sector, with a consolidated balance sheet expansion of over 17 per cent in the first half of 2018-19, led by asset finance companies and investment companies. A few large Non Banking Financial Company-Micro Finance Institution (NBFCs-MFI) have converted into small finance banks (SFBs). NBFCs maintained their profitability in H1:2018-19, and recent concerns about asset-liability mismatches are being proactively addressed.

I.4 The year 2017-18—which constitutes the period of review for this Report—can be

considered a watershed in the evolution of India's banking system for five reasons. First, the foundations of a comprehensive, decisive and credible resolution architecture was laid and built upon, with the Reserve Bank armed with the legislative amendment that empowered it to direct banks on the mechanism to resolve bad loan cases, and the Insolvency and Bankruptcy Code (IBC, 2016) being established as the pivot in the architecture to resolve stressed assets. Second, urban co-operative banks (UCBs) were given an opportunity to voluntarily convert to SFBs enabling them to carry out a wider range of activities and also have a pan-India presence. Third, concerted policy initiatives were put in place as force multipliers for inclusive lending—in addition to trading of priority sector lending certificates (PSLCs) on e-Kuber facilitating indirect lending to the priority sector, the Reserve Bank also encouraged direct lending through co-origination of loans by banks and NBFCs. Fourth, the drive for financial inclusion was reinvigorated by the introduction of the modified Pradhan Mantri Jan Dhan Yojana (PMJDY). Fifth, the introduction of the newer version of Unified Payments Interface (UPI) has positioned the banking system to reap benefits from technology, while being mindful of cyber security risks.

I.5 Against this backdrop, the rest of the chapter lays out perspectives that are likely to shape the banking ecosystem in the period ahead.

Resolution

I.6 The new resolution framework adopted by the Reserve Bank with the Insolvency and

Bankruptcy Code (IBC) as its lynchpin, is a game changer as it endeavours to create an environment in which maximum value can be realised from troubled assets, bolstered with the early identification of incipient stress. In developed economies, supervisors' efforts to discipline banks are complemented by market forces that anticipate banking stress and incorporate it in price discovery. Only a bank that fears losing its deposit base or incurring the wrath of its shareholders is likely to recognize losses in a timely manner (Acharya, 2017)¹. In a developing economy like India, markets emit weak signals of imminent stress in banking (Box I.1). Consequently, policy interventions are warranted, and supervisors need to be proactive in dealing with stress right at the inception.

I.7 The progress of IBC framework so far is encouraging and has resulted in better recovery as compared to the earlier existing mechanisms. Although the number of liquidation cases so far appears to be comparatively large, a closer examination suggests that these mainly consist of long pending issues. As the intrinsic value of these assets had already eroded, liquidation was a more efficient strategy than resolution (Box III.1 on 'Insolvency and Bankruptcy: Impact so far'). The shift of power in favour of creditors in the IBC framework will facilitate speedier and impartial resolution process and help in improving the credit repayment culture. In view of the large number of cases that may be referred to National Company Law Tribunal (NCLT) in near future, there may be a case for strengthening the NCLT infrastructure in order

¹ Acharya, V.V. (2017): 'Some Ways to Decisively Resolve Bank Stressed Assets', *RBI Bulletin*, Vol. LXXI, No. 3, March.

Box I.1: Financial Markets as Predictors of Banking Sector Distress?

Debt and equity prices should ideally reflect the level of individual bank risk and convey information on the likelihood of emerging stress (Krainer and Lopez, 2004). Among the three pillars of a sound banking system (Basel Committee on Banking Supervision, 2006), market discipline is the channel through which depositors and investors penalise a bank for excessive risk-taking by withdrawing their funds or by charging a higher interest rate on the supply of funds. In such a situation, market prices and returns would reflect the level of individual bank risk. Since market investors, unlike secured depositors, demand a risk premium, they would incorporate this information while pricing the bank and forming their expectations on its likely performance in the future (Distinguin *et al.*, 2006). It is in this context that banking regulators recognise market discipline as a key pillar of their regulatory toolkit.

In the Indian context, a graphical analysis of the data suggests negative correlation between the stressed assets ratio and market-adjusted stock returns, in line with the literature (Chart 1). To investigate this further, a sample of 39 publicly-listed scheduled commercial banks (SCBs) was chosen for a closer analysis, for which accounting and balance sheet data from quarterly supervisory returns filed by banks with the Reserve Bank, along with quarterly stock returns, market capitalisation, and excess return over the S&P SENSEX were employed over the period 2010: Q1 to 2017: Q4.

Following Beck *et al* (2015), equation (1) is estimated in a fixed effect panel framework, in order to account for time-constant unobserved heterogeneity amongst the banks in the sample. The choice of this methodology is also validated by the Hausman test.

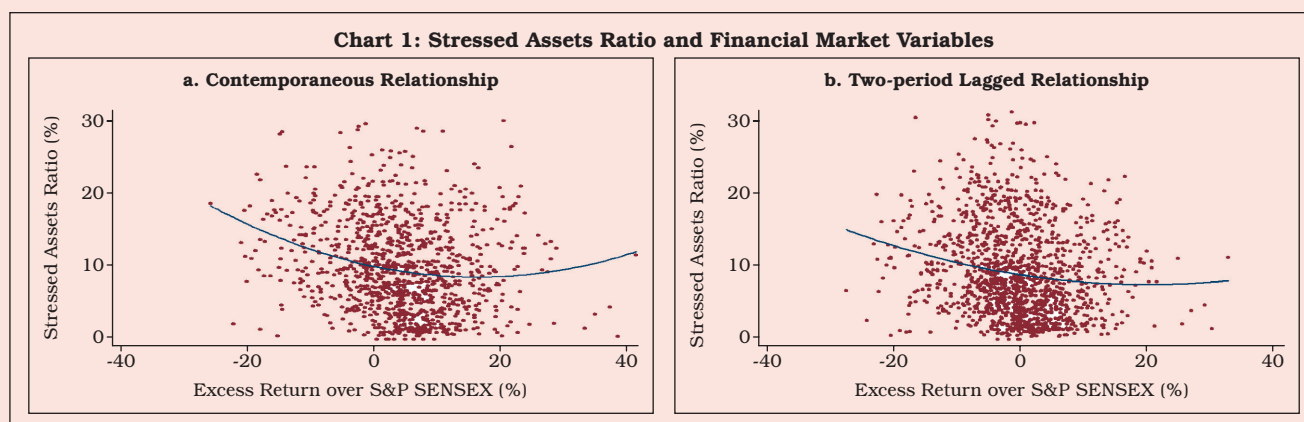
$$Y_{it} = \alpha_i + \beta_j R_{i,t-j} + \gamma_j F_{i,t-j} + \varepsilon_{it} \dots\dots\dots (1)$$

The dependent variable is the stressed assets ratio (SAR). $R_{i,t-j}$ represents a vector of supervisory ratios—return on assets, total assets and CRAR and $F_{i,t-j}$ contains excess returns in relation to the SENSEX and price-to-book value ratio, respectively. β and γ are coefficient vectors. ‘j’ takes the value 0, 1, 2 to indicate lagged values.

The contemporaneous relationship between bank distress, supervisory and financial market variables is evaluated first. Then, one- and two-period lagged values of independent variables are introduced in the model to ascertain predictive power. If financial markets are indeed forward looking and strongly efficient, coefficients of lagged values of market variables should be statistically significant. It needs to be noted, however, that in view of the lagged release of supervisory data (by around two months) *vis-a-vis* real time release of stock data, even a statistically significant contemporaneous relationship between the two may suggest market efficiency, *albeit* weakly, in predicting banking distress.

As expected, the SENSEX-adjusted excess return is negatively signed for contemporaneous as well as lagged relationships, although it loses statistical significance over the long run (Table.1). The price-to-book value ratio shows a statistically significant negative relationship with stressed assets contemporaneously. The R-squared and Akaike Information Criterion (AIC) of models combining supervisory information (*e.g.* RoA, CRAR and total assets) and market information improve over their levels as compared to models with only supervisory data, *albeit* marginally.

These results suggest that Indian markets have weak predictive power with respect to banking distress. In the long-run, these coefficients lose correct signs and/



(Contd....)

Table 1: Fixed Effects Panel Regression Model [Dependent Variable – Stressed Assets Ratio]

Explanatory Variables	with same-period values			with one-period lagged values		with one- and two-period lagged values			
	1	2	3	4	5	6	7	8	9
Constant	-0.038 (0.067)	0.107*** (0.006)	-0.063 (0.070)	0.099 (0.079)	0.142*** (0.012)	0.088 (0.082)	0.158* (0.903)	0.158*** (0.015)	0.156 (0.100)
Total Assets (in Logs)	0.020*** (0.005)	-	0.023*** (0.006)	-0.066** (0.027)	-	-0.06** (0.027)	-0.79*** (0.024)	-	-0.07** (0.026)
Total Assets (-1)	-	-	-	0.07*** (0.026)	-	0.075*** (0.026)	0.063** (0.029)	-	0.051 (0.033)
Total Assets (-2)	-	-	-	-	-	-	0.024 (0.018)	-	0.027 (0.020)
Return on Assets	-0.043*** (0.003)	-	-0.04*** (0.004)	-0.027*** (0.003)	-	-0.027*** (0.003)	-0.02*** (0.002)	-	-0.022*** (0.002)
Return on Assets (-1)	-	-	-	-0.020*** (0.003)	-	-0.19*** (0.003)	-0.02*** (0.002)	-	-0.019*** (0.002)
Return on Assets (-2)	-	-	-	-	-	-	-0.003 (0.003)	-	-0.003 (0.003)
CRAR	-0.006*** (0.001)	-	-0.005*** (0.001)	-0.005*** (0.001)	-	-0.005*** (0.001)	-0.01*** (0.001)	-	-0.004*** (0.001)
CRAR (-1)	-	-	-	-0.003*** (0.001)	-	-0.003** (0.001)	-0.002** (0.001)	-	-0.002** (0.013)
CRAR (-2)	-	-	-	-	-	-	-0.001 (0.001)	-	-0.001 (0.001)
Exc. Return SENSEX	-	-0.036*** (0.012)	-0.005 (0.007)	-	-0.007 (0.009)	-0.014*** (0.006)	-	0.23** (0.010)	-0.002 (0.008)
Exc. Return SENSEX (-1)	-	-	-	-	-0.047*** (0.022)	-0.008 (0.010)	-	-0.010 (0.021)	0.001 (0.008)
Exc. Return SENSEX (-2)	-	-	-	-	-	-	-	-0.05*** (0.019)	-0.014 (0.009)
Price-to-Book Ratio	-	-0.018*** (0.006)	-0.008*** (0.003)	-	-0.034*** (0.007)	-0.003 (0.003)	-	-0.03*** (0.008)	-0.006 (0.004)
Price-to-Book Ratio (-1)	-	-	-	-	-0.009*** (0.004)	-0.002 (0.003)	-	-0.03*** (0.006)	-0.002 (0.004)
Price-to-Book Ratio (-2)	-	-	-	-	-	-	-	0.007 (0.005)	0.005 (0.003)
Model Diagnostics									
R-Squared (overall)	0.6129	0.2409	0.6216	0.6720	0.3167	0.6765	0.6726	0.3753	0.6788
F-Test (Prob>F)	55.82 (0.00)	12.47 (0.00)	48.64 (0.00)	40.61 (0.00)	9.10 (0.00)	32.69 (0.00)	35.65 (0.00)	6.98 (0.00)	28.43 (0.00)
AIC	-5872	-4817	-5888	-5533	-4492	-5534	-4977	-4155	-4981

Note: Robust standard errors are given in the parentheses. '***', '**' and '*' signify level of significance at 1%, 5% and 10%, respectively.

or statistical significance, suggesting that the prices incorporate robust stress-related information only in the short-run.

References

Beck, R., Jakubik, P., & Piloju, A. (2015): 'Key Determinants of Non-performing Loans: New Evidence from a Global Sample', *Open Economies Review*, 26(3), 525-550.

Distinguin, I., Rous, P., & Tarazi, A. (2006): 'Market Discipline and the use of Stock Market Data to Predict Bank Financial Distresses', *Journal of Financial Services Research*, 30(2), 151-176.

Krainer, J., & Lopez, J. A. (2004): 'Incorporating Equity Market Information into Supervisory Monitoring Models', *Journal of Money, Credit and Banking*, 1043-1067.

to ensure that it can deliver on its promise of time-bound resolution.

I.8 The two entities that play pivotal roles in determining the efficacy of resolution processes in the Indian context *viz.*, the committee of creditors (CoCs) and the insolvency resolution professionals (IRPs), need to ensure efficient outcomes while delicately balancing the interests of all stakeholders. Minimising the time taken to resolve cases and the development of a conducive environment that discourages unnecessary delays assume importance. Notwithstanding this, there is no alternative to proper credit appraisal and monitoring, internal controls and risk management, improved disclosures and efficient corporate governance, all of which must be strengthened to improve the efficiency of the whole process. In this context, the proposed public credit registry (PCR) will aggregate information about borrowers from multiple agencies at one place and allow safe access to the data for all important stakeholders in the financial system. This is expected to improve credit monitoring and bring about credit discipline among debtors.

Recapitalisation

I.9 The government has infused capital in PSBs intermittently. In the last three years (2015-18), however, more than 70 per cent of the infused capital was absorbed into losses incurred by them (Section 4, Chapter IV). This suggests that only if the recapitalisation amount is large enough relative to the total capital base, can it make a perceptible impact on credit growth.

I.10 The Basel III norms recommend risk weights for various credit exposures, based on cumulative default rates (CDR) and recovery rates observed internationally. However, the CDRs and the loss given default (LGD) rates observed in India are much higher than observed internationally. Therefore, applying the Basel-specified risk weights would understate the true riskiness of loan assets carried on the books of Indian banks. Moreover, the current levels of provisions maintained by banks may not be enough to cover expected losses. In particular, the adequacy of buffers becomes an important issue in order to absorb the expected losses which have not been provided for, if and when they materialize. It also needs to be recognised that the Indian banking system has a high proportion of un-provided NPAs *vis-à-vis* the capital levels although after the IBC and the Reserve Bank's revised framework for resolution of stressed assets, there are signs of improvement in the default rates and the recovery rates. Citing this, there have been calls for reducing the regulatory capital requirement. Against the foregoing however, the case for a recalibration of risk-weights or minimum capital requirements would need to be carefully assessed—frontloading of regulatory relaxations before the structural reforms fully set in and conclusive evidence on sustained improvement in CDRs and LGDs is observed—could be detrimental to the interests of the economy².

Corrective Action

I.11 The revised prompt corrective action (PCA) framework effected from April 2017 seeks

² Vishwanathan N.S. (2018): 'Some Thoughts on Credit Risk and Bank Capital Regulation', *RBI Bulletin*, Vol. LXXII No. 11, PP 33-44, November.

to intervene early and take corrective measures in a timely manner so that the financial health of the banks is quickly restored. The early intervention framework varies across countries, based on supervisory tools, the range of powers of the regulatory/supervisory authority and degrees of restrictions. The PCA framework of the US introduced in 1991 relies on capital triggers whereas the European Union's Early Intervention Measures (EIM), introduced in 2014 is based on a set of composite indicators and does not necessarily lead to intervention when triggers are breached. The competent authority is given flexibility whether to intervene or not, based on an assessment of the trigger events. The Reserve Bank's PCA framework is based on the lines of the US-PCA framework, although the threshold of the latter is based only on capital whereas in India in addition, asset quality and profitability indicators are also tracked. This is essential in the Indian context as historically banks here have maintained low provision coverage ratios, have large expected losses that are unprovided for, and need ability to generate profits to accrue to future capital. As a result, the current level of capital does not capture the additional capital requirement on account of expected future loan losses³.

Corporate Governance

I.12 The growing size and complexity of the Indian financial system will warrant strengthening of corporate governance systems in banks. In this context, the unfinished agenda includes implementation of recommendations

made by the P. J. Nayak Committee (2014) which envisages, *inter alia*, incorporation of PSBs under the Companies Act and transfer of their ownership from government to a Bank Investment Company (BIC). Although a Banks Board Bureau (BBB) has been set up in the interim period, the roadmap of transition to BIC is yet to be laid down. Moreover, the BBB is yet to be entrusted with the responsibility of appointment of non-official directors.

I.13 The Reserve Bank's guidelines on 'fit and proper' criteria for shareholder directors in PSBs which were issued in November 2007 are being comprehensively reviewed. The other issue relates to the presence of the Reserve Bank officials on banks' boards, which has been regarded as leading to serious conflict of interest. Therefore, there is a need to bring in necessary legislative changes to do away with the requirement of nominating Reserve Bank officials as nominee directors on the boards of PSBs.

I.14 An effective performance evaluation system incentivises banks to improve their financial and operating parameters. It empowers banks and at the same time builds accountability. The government, the BBB and the Reserve Bank are currently engaged to develop an objective framework for performance evaluation and this should redefine the contours of corporate governance in PSBs with a focus on transparency, accountability and skill.

I.15 Apart from this, appropriate regulatory actions were taken against some private sector banks on account of certain lapses in their

³ Acharya, V.V. (2018): 'Prompt Corrective Action: An Essential Element of Financial Stability Framework', *RBI Bulletin*, Vol. LXXII, No. 11, PP 1-12, November.

functioning and governance. Furthermore, with a view to align the compensation policy with evolving international best practices and for an objective assessment of remuneration sought by the banks for their whole-time directors, a review of the extant guidelines on compensation is on the cards.

Non-Banking Financial Companies (NBFCs)

I.16 The non-banking financial companies (NBFCs) faced challenging times recently. The recent experience of debt default of a systemically important NBFC highlighted the vulnerability and need for strengthening regulatory vigil on the sector in general and on asset liability management (ALM) framework in particular. The extant ALM guidelines are applicable to non-deposit taking NBFCs with an asset size of ₹1 billion and above and to those deposit taking companies which have a deposit base of ₹0.2 billion and above. ALM guidelines as prescribed for the sector relate to three pillars of ALM, *i.e.*, ALM information systems, ALM organisation (including setting up of asset liability committee (ALCO) and its composition) and ALM process. These also detail out the requirement for monitoring of structural liquidity, short-term dynamic liquidity and interest rate sensitivity. However, the instructions are less granular compared to that for banks. Further, the ALM instructions for registered Core Investment Companies (CIC-NDSI) are minimal. The Reserve Bank intends to strengthen the ALM framework for NBFCs on lines similar to that for banks and harmonise it across different categories of NBFCs.

Cyber Security

I.17 While technology provides opportunities for growth and innovation in the banking

sphere, it also involves newer challenges and risks. Cyber risk is threatening to engulf all the economies, with particular consequences to the banking sector. Alongside the increasing role of technology in provision of financial services, rapid growth in digital payment ecosystem, high degree of interdependence and interconnectedness between operators in financial markets and increasing diversity of attackers, cyber threats have proliferated in incidents and sophistication, necessitating an integrated approach to ensure survivability of payment system providers as well as participants. It is also equally important to ensure cyber security awareness, auditing and continuous monitoring. Payment system providers are required to establish mechanisms for monitoring, handling and follow-up of cyber security incidents and cyber security breaches. Formulation of comprehensive cyber risk and resilience policies and diligent implementation while providing for effective governance will be necessary.

I.18 The Reserve Bank plans to set up an Integrated Compliance and Tracking System portal to handle various supervisory functions including oversight of cyber security arrangements. On-line portal for reporting of cyber security incidents would be expanded to cover other regulated entities as well.

I.19 The Reserve Bank will continue to monitor asset quality of banks as well as resolution of stressed assets with a focus on implementation of the new resolution framework. Other areas where policy action is planned include implementation of Ind-AS, corporate governance in banks and a revised framework for securitisation. The

Reserve Bank also intends to issue revised prudential regulations including guidelines on exposure/investment norms, risk management framework and select elements of Basel III capital framework to the All India Financial Institutions (AIFIs). In order to promote innovation in financial services, collaboration agreements would be made with other regulators. Also, the policy on subsidiarisation of foreign banks will

be reviewed with a view to fostering competition and re-orienting the banking structure in India.

I.20 Indian banking system is on the cusp of a transformation aided by recent policy measures to reduce vulnerabilities and improve its financial health. Signs of incipient improvement in the asset quality are visible although continued policy thrust is required for ensuring a resilient and robust banking system.