

Chapter III

Financial Sector Regulation and Infrastructure

While the capital to risk weighted assets ratio (CRAR) of the scheduled commercial banks at 12.8 per cent as of September 2014 is satisfactory, going forward, the banking sector, particularly the public sector banks (PSBs) would require substantial capital to meet regulatory requirements with respect to additional capital buffers.

With the increased regulatory focus on segregating the cases of wilful defaults and ensuring the equity participation of promoter(s) in the losses leading to defaults, there is a need for greater transparency in the process of carrying out a net economic value impact assessment of large Corporate Debt Restructuring (CDR) cases. Another aspect that impinges upon the banks' asset quality is corporate leverage and its impact on banks' balance sheets, particularly 'double leveraging' through holding company structures and the pledging of shares by promoters.

Indian stock markets have seen a rapid growth in recent months. While the retail investor base still remains comparatively low, India's stock markets have been attracting substantial amounts of foreign investments, increasing the risks of reversal. The Securities and Exchange Board of India (SEBI) has introduced an additional safety net in the form of core settlement guarantee fund to mitigate risks from possible default in settlement of trades and to strengthen risk management framework in the domestic capital markets.

With a view to improving participation of actual users / hedgers and the quality of price discovery in the market, the Forward Markets Commission (FMC) has revised position limits which are linked to estimated production and imports of the underlying commodities.

To deal with issues relating to unauthorised deposit acceptance and financial frauds, the State Level Coordination Committee (SLCC) mechanism has been strengthened under the initiative of the Financial Stability and Development Council (FSDC).

Progress on the global regulatory reforms programme

3.1 The financial sector reform programme, initiated under the aegis of G20 as a response to the global financial crisis was primarily aimed at correcting the weaknesses in financial regulation and supervision mainly in some advanced jurisdictions that caused or aggravated the global crisis. A broad agreement has been arrived at with regard to the contours and design of most of the proposed regulatory reform measures (for example, banking capital and liquidity regulations, 'too-big-to-fail', shadow banking and OTC derivatives, among others) and the implementation of these measures is being taken forward based on clear principles and timelines.¹ The implementation is being coordinated by the Financial Stability Board

(FSB) with active involvement of national regulatory, supervisory and policymaking authorities and international standard-setting bodies seeking to make the global financial system safer, more resilient to shocks and more efficient in catering to the needs of the real sector for promoting strong and sustainable economic growth.

Basel III: Banking capital and liquidity standards

Improvement in capital ratios of international banks

3.2 Regulatory initiatives on banking capital and liquidity have contributed to the strengthening of the global banking system. The capital ratios of large internationally active banks have shown improvement

¹ FSB (2014b), "Overview of Progress in the Implementation of the G20 Recommendations for Strengthening Financial Stability: Report of the Financial Stability Board to G20 Leaders", November [available at: <http://www.financialstabilityboard.org/wp-content/uploads/Overview-of-Progress-in-the-Implementation-of-the-G20-Recommendations-for-Strengthening-Financial-Stability.pdf>].

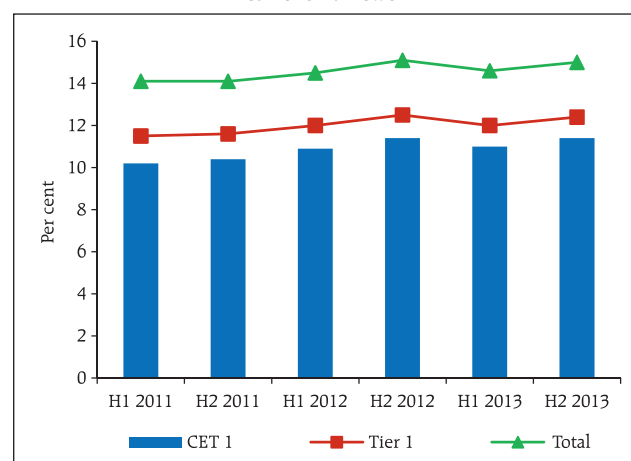
over the last three years.² The average common equity Tier I (CET1) capital ratio of these banks rose from 10.2 per cent to about 11.4 per cent of their risk-weighted assets (RWAs) during the second half of 2013 under the currently applicable regulatory framework (Chart 3.1). If all the provisions of the Basel III framework were to be applied on the December 2013 position, the average CET1 capital ratio of these banks would fall from 11.4 per cent to 10.2 per cent due to the new definition of eligible capital under Basel III, deductions that were not previously applied at the common equity level of Tier I capital in most countries and increases in RWAs. The transition, however, is specifically provided for by Basel III to moderate the immediate impact on balance sheets.

3.3 As banks adapt themselves to new regulatory and business realities, the impact on profitability may raise concerns about their ability to build capital buffers and meet credit demand. These banks may require a fundamental overhaul of their business models, including a combination of re-pricing in existing business lines, reallocation of capital across activities or retrenching altogether.

Augmentation of capital: The 'efficiency-redundancy' paradigm

3.4 Although the Basel Committee's global regulatory standards on bank capital adequacy will strengthen capital ratios in the long run, they may also lead to increase in the cost of capital, which in turn will affect the cost of lending and economic growth and may force banks into aggressive and riskier innovations to maintain their return on equity (RoE). The issue has also created debates over the

Chart 3.1: Average CET1, Tier I and total capital ratios under the current framework



Source: Basel Committee on Banking Supervision.

efficiency-redundancy trade-off involved in extra capital that banks are mandated to raise. Furthermore, an improvement in capital ratios *per se* may not necessarily lead to improvements in the capacity of banking institutions and their contribution to economic development as capital ratios may increase on account of many factors.

3.5 Previous Financial Stability Reports (FSRs) have discussed issues relating to the possibility of manoeuvring of risk-weights, especially under internal models-based approaches for different types of risks under the Basel framework. In order to strengthen the comparability of implementation across jurisdictions, the Basel Committee has started an analysis of the discretions in risk-weight prescriptions to understand how much they contribute to unwarranted variations in capital standards. This has been highlighted by some recent studies³ on the variation of risk-weighted assets in the banking book and the trading book. Going forward, some of these

² BCBS (2014a), "Basel III Monitoring Report", *Bank for International Settlements*, September [available at: <http://www.bis.org/publ/bcbs289.pdf>].

³ BCBS (2013a), "Regulatory Consistency Assessment Programme (RCAP) – Analysis of risk-weighted assets for market risk", *Bank for International Settlements*, February [available at: <http://www.bis.org/publ/bcbs240.pdf>].

BCBS (2013b), "Regulatory Consistency Assessment Programme (RCAP) - Analysis of risk-weighted assets for credit risk in the banking book", *Bank for International Settlements*, July [available at: <http://www.bis.org/publ/bcbs256.pdf>].

BCBS (2013c), "Regulatory Consistency Assessment Programme (RCAP) - The second report on risk-weighted assets for market risk in the trading book", *Bank for International Settlements*, December [available: <http://www.bis.org/publ/bcbs267.pdf>].

discretions may be removed in 2015.⁴ Further, Basel Committee is examining prescription of other policy measures and benchmarks to ensure more consistency as part of Regulatory Consistency Assessment Process.

3.6 The introduction of a minimum Tier I leverage ratio of 3 per cent by Basel Committee on Banking Supervision (BCBS), was aimed at constraining the build-up of leverage in the banking sector and reinforcing risk-based capital requirement measures with a simple and non-risk based 'backstop' measure. The Reserve Bank has prescribed that banks should strive to achieve a minimum Tier 1 leverage ratio of 4.5 per cent during the parallel run period.

Proposals for tougher capital measures for addressing 'too-big-to-fail'

3.7 Policy proposals on the adequacy of loss-absorbing and recapitalisation capacity of Global Systemically Important Banks (G-SIBs)⁵ has been under consideration in the form of a common minimum requirement for their 'gone-concern loss-absorbing capacity' (GLAC). In the recently released set of principles⁶ for public consultation on the loss-absorbing capacity of G-SIBs in resolution, FSB has proposed a single specific minimum Pillar 1 'total loss-absorbing capacity (TLAC)' requirement to be set within the range of 16–20 per cent of RWAs under the condition that the minimum level should be at least twice the Basel III Tier I leverage ratio requirement.

3.8 The objective of the TLAC requirements is to ensure that G-SIBs have adequate loss absorbing and

recapitalisation capacity necessary to ensure that in and immediately following a resolution, critical functions can be continued without tax payers' funds or financial stability being put at risk. Implementation of TLAC and the final calibration of the common Pillar 1 minimum TLAC requirement will take into account the results of this consultation and the Quantitative Impact Study and market survey which will be carried out in early 2015.

3.9 TLAC requirements are not applicable to any Indian bank as none of them is a G-SIB. However, it may not be possible to rule out the risk of spill over impact on emerging market and developing economies (EMDEs) due to the adverse impact of the TLAC proposal on G-SIBs.

Assessment of impact of higher capital requirements

3.10 Some studies⁷ show that, *ceteris paribus*, if the ratio of common equity for a given loan is increased by 2 per cent, banks will require to raise the lending rate by 40 basis points (bps) in US and 19 bps in Europe, to maintain a level of 12 per cent RoE. It has been observed that the banks tend to pass on the increased cost to the lending spread without any adjustments to other heads of income. Increased cost of lending might impact the credit off-take from banking sector.

3.11 Various studies to assess the impact of implementation of Basel III on growth point towards the negative impact of higher capital requirements on GDP.⁸ Analytical work also shows that Basel III

⁴ BCBS (2014b), "Basel capital framework national discretions", *Bank for International Settlements*, November [available at: <http://www.bis.org/bcbs/publ/d297.pdf>].

⁵ FSB and the BCBS identified 30 G-SIBs in November 2014. There is no Indian bank in this list of G-SIBs.

⁶ FSB (2014a), "Adequacy of Loss-Absorbing Capacity of Global Systemically Important Banks in resolution", November [available at: <http://www.financialstabilityboard.org/wp-content/uploads/TLAC-Condoc-6-Nov-2014-FINAL.pdf>].

⁷ Elliott, D, S. Salloy and A. O. Santos (2012), "Assessing the Cost of Financial Regulation", *IMF Working Paper*, WP/12/233, September. [available at: <http://www.imf.org/external/pubs/ft/wp/2012/wp12233.pdf>]

⁸ Slovik, P., and B. Cournède (2011), "Macroeconomic Impact of Basel III," *OECD Economics Department Working Papers*, No. 844 suggests that a 1 per cent increase in capital would lead to marginal annual decline of 0.04 per cent while IIF (2011), "The cumulative impact on the global economy of the changes in the financial regulatory framework", September observed that capital requirements would reduce GDP by 2.7 per cent in the US, 3 per cent in the European Union and 4 per cent in Japan.

MAG (2010), "Final Report - Assessing Macroeconomic Impact of the transition to stronger capital and liquidity", *Bank for International Settlements*, December observes that the annual growth would be 0.03 percentage points (or 3 basis points) below its baseline level during the period of implementation, showing modest impact on growth.

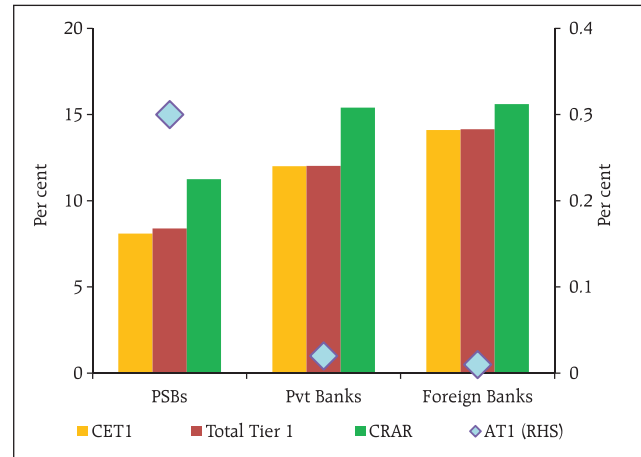
requirements will have spill over effects in the non-bank financial sector due to shifting of credit to the non-bank financial sector. A few other studies on the assessment of the impact of implementation of Basel III specifically focus on EMDEs.⁹

Capital levels of Indian banks

3.12 India has implemented Basel III capital framework from April 1, 2013. The CRAR for Indian banks under Basel III as of September 2014 stood at a satisfactory level of 12.8 per cent (as against 13 per cent as of March 2014). Banks are expected to remain under pressure on account of additional requirements towards the capital conservation buffer, the countercyclical capital buffer and supervisory capital under pillar 2 (Chart 3.2). While all bank groups met the segregated requirements of minimum CET1 and Tier I capital ratios as at the end of September 2014, if the additional requirement of 2.5 per cent in the form of CET1 for meeting the capital conservation buffer is considered in future, then the capital requirements, especially of public sector banks (PSBs), would go up further.

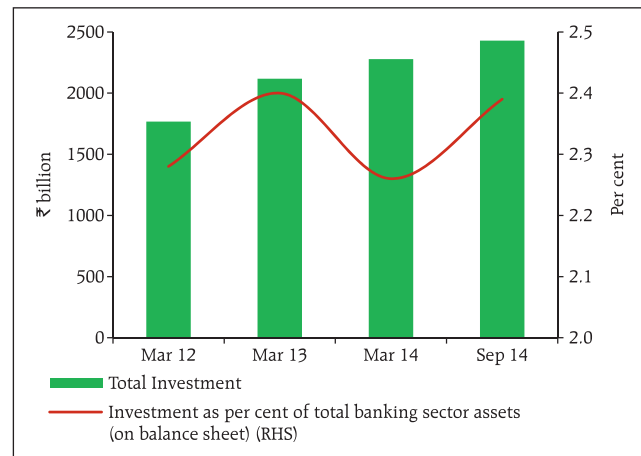
3.13 Apart from the cost implications of raising additional capital, banks will face challenges in terms of depth, liquidity and sufficient appetite in India's capital markets for such risk bearing Additional Tier I (AT1) capital instruments. In the absence of a wider retail market, few select investor categories and institutional investors, mainly insurance companies might end up holding much of the AT1 instruments issued by banks (Chart 3.3). Since such institutional investors mostly hold such securities till maturity, feedback for pricing of such instruments through secondary market trades are conspicuously absent. In the absence of effective market making, the banks may have to bear higher costs for issue of such instruments relative to their international peers.

Chart 3.2: Capital ratios of the banking sector (September 2014)



Source: RBI supervisory returns and staff calculations.

Chart 3.3: Insurance companies¹⁰ investments in long-term capital instruments/bonds of the banking sector



Source: RBI supervisory returns and staff calculations.

⁹ A., Abdel-Baki Monal, (2012), "The Impact of Basel III on Emerging Economies", *Global Economy Journal*, 12, issue 2, p. 1-33 found that the implementation of Basel III would hamper growth by more than 3 percentage points in the 47 emerging market economies studied in the paper.

¹⁰ Sample includes 21 top insurance companies in the country.

This issue further underlines the need for development of a robust non-government debt market.

3.14 On its part, as owner of the dominant part of the banking industry, the Government of India has made capital infusion of ₹586 billion in PSBs in the last four years (2011-14) and plans to further infuse an amount of ₹112 billion in 2014-15. Capital infusion has broadly been carried out by way of preferential allotment of equity by the banks. The government is planning to bridge this gap by diluting its stake in some PSBs to 52 per cent to enable banks to raise capital from the market. Tentative calculations show that PSBs require significant capital injection in order to sustain even a moderate 15 per cent compounded annual growth rate (CAGR) in RWAs.

Market valuations of PSBs and implicit sovereign guarantee

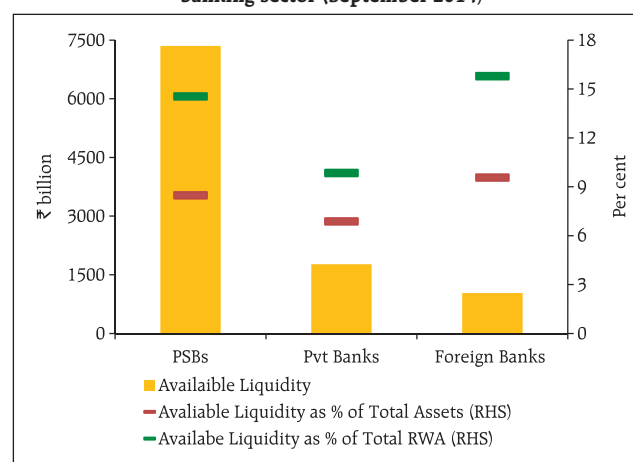
3.15 Capital raising efforts by PSBs other than the capital infusion by the government, face challenges because of their relatively low equity valuations compared to their private sector peers. The previous FSR had raised issues about the low valuation of PSBs. Despite implicit backing from the government, the low equity valuations are justified by the options pricing model for valuation of equity. The implicit sovereign guarantee cannot be treated directly in this model because if the value of a firm falls below the face value of debt, then compensation to debtors is assumed to be made up by the sovereign, but no compensation will be forthcoming to equity investors. Hence, the fortunes of equity investors are unaffected by an implicit sovereign guarantee of debt. The ultimate improvement in valuations can only come from commensurate improvements in asset quality, governance structures and operational efficiency.

Liquidity coverage ratio (LCR) norms

3.16 According to the guidelines issued by the Reserve Bank on the liquidity coverage ratio (LCR) in June 2014, banks were permitted to reckon government securities to the extent allowed by the Reserve Bank under its Marginal Standing Facility (MSF) as Level 1 High Quality Liquid Assets (HQLA) under LCR. Subsequently, banks have been allowed (with effect from January 1, 2015) to include government securities held by them up to another 5 per cent of their net demand and time liabilities (NDTL) within their mandatory Statutory Liquidity Ratio (SLR) requirement (see Box 3.2 for details). Such government securities reckoned as HQLAs for the LCR are to be valued at an amount not greater than their current market value.¹¹

3.17 As of September 2014, the banking sector had a liquidity buffer, represented by unadjusted level 1 HQLA¹², of over ₹10 trillion which was around 8.2 and 13.5 per cent of total banking sector assets and RWAs respectively (Chart 3.4). However, since LCR has to be adopted in each significant currency separately, the implementation of Basel III LCR norms for the foreign

Chart 3.4: Available liquidity (unadjusted level 1HQLA) of the banking sector (September 2014)



Source: RBI supervisory returns and staff calculations.

¹¹ RBI (2014a), "Basel III framework on liquidity standards - liquidity coverage ratio (LCR), liquidity risk monitoring tools and LCR disclosure standards" November 28. [available at: <http://rbi.org.in/scripts/NotificationUser.aspx?Id=9369&Mode=0>].

¹² Unadjusted Level 1 HQLA has been calculated as total of excess CRR, excess SLR, available MSF and additional 5 per cent of NDTL.

exchange portfolio of Indian banks may have profound implications for the way the business is being conducted hitherto. Currently, the foreign exchange business model for Indian banks involves running negative gaps (the duration of assets longer than that of liabilities), with negligible foreign currency HQLA backing. Moreover, overseas branches being the major source of foreign exchange liabilities may themselves be subject to host country liquidity regulations, including implementation of Basel III norms on a location by location basis (*i.e.* gross) and not aggregate (*i.e.* net) basis, which may be further adding to cost. After negative carry in prospective HQLA in major currencies are taken into account, the profitability of overseas operations as well as foreign exchange book of major banks is likely to be materially affected. The issue requires careful cost benefit analysis of maintaining overseas operations of Indian banks as well as an appropriate strategy to deal with emerging liquidity regulations.

Shadow banking

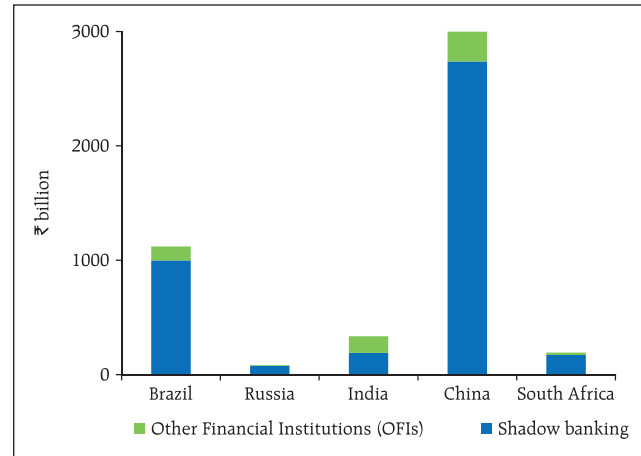
3.18 The role of the 'shadow banking system', defined as 'credit intermediation involving entities and activities outside the regular banking system', as a source of systemic risk was an important learning outcome of the global financial crisis. Its importance stemmed not only from its direct role in supplying credit or liquidity to the economy but also due to its interconnectedness with the more closely regulated banking system.

3.19 According to the FSB methodology and classification, the size of the shadow banking sector in India is estimated to be around USD 190 billion, which is the 15th largest in the world. Among the BRICS, India has the third largest shadow banking sector (Chart 3.5).

Regulation of non-banking finance companies

3.20 The G20/FSB led reform proposals initiated in this regard were aimed at developing appropriate monitoring and regulatory frameworks to mitigate the potential build-up of risks in and through the

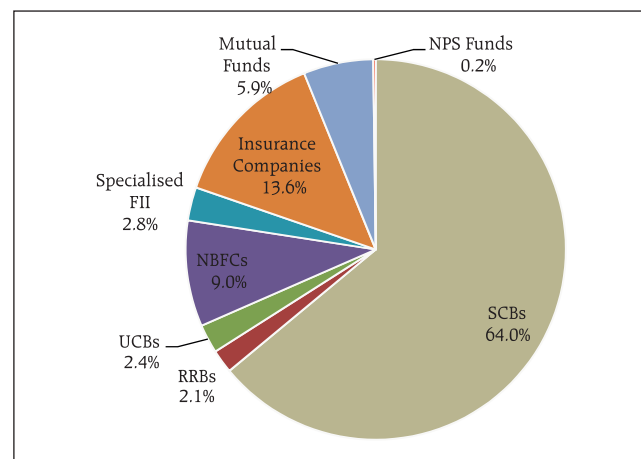
Chart 3.5: Size of the shadow banking system in BRICS countries



Source: FSB.

shadow banking system. The FSB approach was based on first capturing the data and information with respect to all kinds of non-bank credit intermediation and then concentrating on the areas of non-bank credit intermediation where maturity/liquidity transformation and/or flawed credit risk transfer and/or leverage could potentially create important systemic risks. In the Indian financial system what has been reckoned as shadow banking by the FSB are predominantly non-banking financial companies (NBFCs), which have been under prudential regulation for a long time and account for a relatively small share of the total assets of the Indian financial system (Chart 3.6).

Chart 3.6: Share of different sectors in total assets of the Indian financial system



Source: RBI, SEBI, IRDA and PFRDA.

3.21 However, given the significant interconnectedness of NBFCs with the rest of the financial system, especially banks (Table 3.1) they could impact banks under conditions of stress and may face difficulties if banks show reluctance to lend to them in case of a liquidity crunch.

3.22 Considering these aspects, regulations for NBFCs have been tightened (Box 3.1). Furthermore, efforts were also made to assess the size and profile of actual shadow banking entities. From a preliminary reconciliation of the database of the Ministry of

Table 3.1: Exposure of banks, AMCs and insurance companies to top NBFCs¹³

(₹ billion)	Mar 2012	Mar 2013	Mar 2014	Sep 2014
Banks	1513	1453	2919	1495
AMCs	83	624	756	912
Insurance Companies	780	880	965	1023

Source: RBI supervisory returns and staff calculations.

Box 3.1: Salient Features of Revised Regulatory Framework for NBFCs

- i) The minimum Net Owned Fund (NOF) criterion for existing NBFCs (those registered prior to April 1999) has been increased to ₹20 million. NBFCs have been allowed till March 2017 to achieve the required minimum levels.
- ii) In order to harmonise and strengthen deposit acceptance regulations across all deposit taking NBFCs (NBFCs-D) credit rating has been made compulsory for existing unrated asset finance companies (AFCs) by March 31, 2016. Maximum limit for acceptance of deposits has been harmonised across the sector to 1.5 times of NOF.
- iii) In view of the overall increase in the growth of the NBFC sector, the threshold for defining systemic significance for non-deposit taking NBFCs has been revised to ₹5 billion from the existing limit of ₹1 billion. Non-deposit taking NBFCs shall henceforth be categorised into two broad categories: NBFCs-ND (those with assets less than ₹5 billion) and NBFCs-ND-SI (those with assets of ₹5 billion and above – deemed as systemically important) and regulations will be applied accordingly. NBFCs-ND will be exempt from capital adequacy and credit concentration norms while a leverage ratio of 7 has been introduced for them.
- iv) For NBFCs-ND-SI and all NBFCs-D categories, tighter prudential norms have been prescribed - minimum Tier I capital requirement raised to 10 per cent (from earlier 7 per cent in a phased manner by end of March 2017), asset classification norms (from 180 days to 90 days in a phased manner by the end of March 2018) in line with that of banks and increase in provisioning requirement for standard assets to 0.40 per cent in a phased manner by March 2018. Exemption provided to AFCs from the prescribed credit concentration norms of 5 per cent has been withdrawn with immediate effect. Additional corporate governance standards and disclosure norms for NBFCs have been issued for NBFCs-D and NBFCs-ND.
- v) NBFCs with assets of less than ₹5 billion shall not be subjected to prudential norms if they are not accessing public funds and those not having customer interface will not be subjected to conduct of business regulations.
- vi) Assets of multiple NBFCs in a group shall be aggregated to determine if such consolidation falls within the asset sizes of the two categories. Regulations as applicable to the two categories will be applicable to each of the NBFC-ND within the group. Reporting regime has been rationalised with only an annual return prescribed for NBFCs of assets size less than ₹5 billion.

¹³ The sample includes the 36 biggest NBFCs in the country (both deposit taking and non-deposit taking).

Corporate Affairs (MCA), Government of India, on companies registered under the Companies Act, 1956 and classified under 'Financial Intermediation, except Insurance and Pension Funding' and 'Activities auxiliary to Financial intermediation', it is observed that many of these companies though not registered with the Reserve Bank might be carrying on (non-banking) financial activities. Financial statements of many such companies reveal that a significant number of them could be termed as NBFCs as per the Principal Business Criteria (PBC) specified by the Reserve Bank. Such companies include a small number of deposit taking companies and also companies whose applications for registration were cancelled by the Reserve Bank on various grounds.

3.23 A preliminary exercise to map the universe of 'finance' companies currently not registered with the Reserve Bank shows that the relative proportion of the segment of un-registered companies in terms of asset size may be much lower than companies under Reserve Bank's regulation. Thus, a large number of small companies populating the NBFC sector do not appear to be posing a major risk to systemic stability (Table 3.2). Nonetheless, they give rise to issues with regard to consumer protection as well as reputational risks for the regulator. In this regard the State Level Coordination Committee (SLCC)¹⁴ mechanism has been strengthened under the initiative of the Financial Stability and Development Council (FSDC) to improve surveillance

and deal with issues such as unauthorised deposit acceptance and financial frauds.

Need to bring government owned NBFCs under prudential regulations

3.24 In addition to NBFCs in the private sector, there are some (central and state) government owned finance companies (not being banks) registered with the Reserve Bank as NBFCs, which account for significant proportion of the total assets and business of the NBFC sector. Government owned NBFCs hold 37 per cent of the assets of the entire NBFC sector but are exempt, at present, from certain regulatory prudential norms of the Reserve Bank. These NBFCs are highly leveraged with a leverage ratio of 6.4 (leverage of state government owned NBFCs at 8.8 and central government owned NBFCs at 6.2) as compared to 3.3 for the entire sector. Their aggregate outside liabilities are around ₹3.8 trillion of which ₹385 billion are in the form of bank borrowings.

3.25 While these NBFCs have been playing a useful role in financing certain critical infrastructure sectors, and certain degree of forbearance might have been warranted in the initial stages, there is a need to bring all deposit taking and systemically important government owned companies under the prudential regulatory framework as applicable to other NBFCs, especially in view of the rationalisation of regulations (and where necessary, alignment with banking sector regulations).

Table 3.2: Size-wise distribution of NBFCs registered with the Reserve Bank

Assets size category (in ₹)	Number of companies	Total Assets size (in ₹ billion)	Proportion of Number of Companies (%)	Proportion of Total Asset Size (%)
Above 1 billion	454	11621	3.8	89.6
500 Million to 1 billion*	686	490	5.7	3.8
Up to 500 million	9555	854	79.4	6.6
Data not available	1334	NA	11.1	

* Data pertains to 384 reporting companies

¹⁴ State Level Coordination Committee is a state level committee convened by the Regional Offices of Reserve Bank, comprising of top government officials, representatives from other regulators and major banks.

Indian banking sector's health and asset quality: Focus on PSBs

Regulatory forbearance

3.26 The extent of restructured assets in the banking sector, especially PSBs, is a cause of serious concern (see Chapter II for details). The relatively higher possibility of slippages in restructured standard advances is required to be factored in by banks from the capital adequacy perspective. Even in 'business as usual' conditions (as against 'stressed conditions'), any restructured advance which would be generally categorised by a rating agency as a sub-investment grade, carries much higher probability of turning into non-performing asset (NPA) than a standard asset. Since banks, traditionally have been short term working capital providers, their appreciation of idiosyncratic risks in infrastructure projects seems to have been inadequate. Hence, the appraisals of most of the project loans have been the prerogative of a handful of merchant banks. However, since the compensation of merchant banks is linked to closure of funding and the decision to fund the respective projects still rests with the banks, it is necessary that the banks strive for a more detailed understanding of the risk-return profile of the underlying projects before committing funds, whenever project appraisal is outsourced.

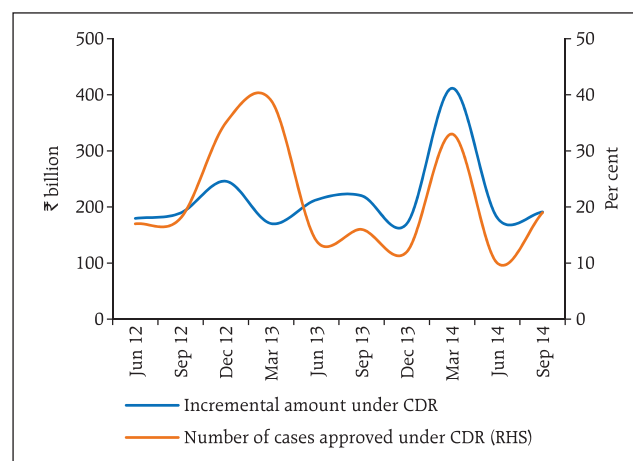
3.27 While it may be somewhat legitimate to justify regulatory forbearance in times of major crises, forbearance for extended periods and as a cover to compensate for lenders/borrowers' inadequacies engenders moral hazard. Furthermore, going forward, with the initiation of risk based supervision as well as implementation of Basel II advanced norms for credit, accounting discretions such as restructuring will have no impact on capital requirements since such processes incorporate capital provisioning based on expected losses (i.e. internal rating based approach for credit risk under Basel II or the Risk Based Supervision model initiated by the Reserve Bank) and would largely align

regulatory capital with economic capital rendering discretionary accounting forbearance of little consequence. Hence, an early end to regulatory forbearance may be the right step. In addition, governance reforms along the lines suggested by the P.J. Nayak Committee will build in inherent checks and balances on the risks and returns of the credit portfolio thereby leading to more informed risk taking.

Reduction in cases referred under CDR in the last six months

3.28 Out of the total number of cases referred to/ approved under CDR, 49 per cent have been successfully implemented till date. Further, it is observed that the number of cases referred to the CDR cell has come down in the recent past (Chart 3.7). One of the reasons for this reduction could be the Reserve Bank's move to allow banks to restructure their large credits with aggregate exposure (AE) of ₹1 billion and above outside CDR under the Joint Lenders' Forum (JLF) constituted under the provisions of the 'Framework to Revitalise the Distressed Assets in the Economy' which became effective from April 1, 2014. (Box 3.2).

Chart 3.7: Quarterly trends in the number of cases and amounts under the CDR Cell



Source: CDR Cell.

3.29 There is also a need to review and strengthen the accountability mechanism in the entire process of reference, approval and implementation or exit under CDR. Adequate disclosures on the eventual cost-benefit profile of approved CDR cases (for successful as well as failed cases) will help in forming policy and aid proper use of scarce resources. With increased regulatory focus on segregating cases of wilful defaults and ensuring adequate equity participation of promoter(s) in the losses leading to defaults, there is a need for greater transparency in carrying out a net economic value impact assessment and audit of big ticket CDR cases.

Corporate leverage

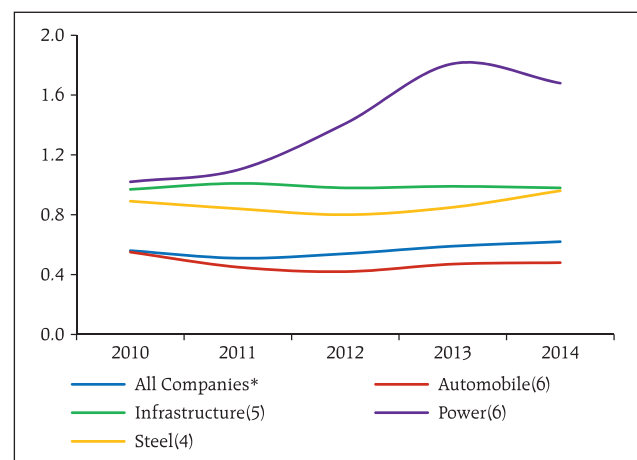
3.30 A related issue that impinges on the banks' asset quality is the understanding of corporate leverage and assessment of the impact on banks' balance sheets. A report of the International Monetary Fund (IMF) has flagged that trends in corporate leverage ratios in emerging Asia (including India) represented a 'fault line', with the potential to amplify shocks as global liquidity conditions tighten, interest rates rise and growth slows.¹⁵ In the Indian context, various reports on indebtedness among Indian companies (and business groups at the aggregate level) have pointed towards increasing corporate leverage (debt-to-equity) ratios, though the Indian scenario is somewhat different with many cash rich companies coexisting with debt ridden companies (Chart 3.8). The euphoria during the boom period might have driven many Indian companies towards huge expansion/acquisition programmes. For many such companies the slowdown in the post-global financial crisis has been a shock and there is some evidence that several of them are on the path of deleveraging and the debt equity ratios of many corporates seem to be stabilising, if not tapering.

3.31 With renewed focus on speedy regulatory clearances for projects and their implementation, the profitability of corporate entities is expected to improve once the stalled projects reach the stage of commercial operations, thus also helping the cause of the asset quality of the banking system. Simultaneously, it may be pertinent to examine the implications of certain corporate practices in India relating to multi-layered structures and pledging of shares by promoters which will improve an assessment of vulnerabilities and the remedies thereof while helping redefine regulatory and supervisory responses.

Effective leverage under holding company/SPV structures

3.32 While the holding company structure has evolved primarily to consolidate a group's holdings in various companies/projects, concerns emanate when such holding companies start acting as operating entities. The evolution of special purpose vehicles (SPVs) may also be associated with the need to reduce bankruptcy costs (and hence risks to lenders). A practice popularly known as 'double leveraging' has been prevalent, especially in the infrastructure space since companies that undertake

Chart 3.8: Average debt-equity ratio of BSE 100 companies¹⁶



Source: Capitaline (figures in parenthesis indicate number of companies).

¹⁵ IMF (2014), "Regional Economic Outlook: Asia and Pacific", *World Economic and Financial Surveys*, April [available at: https://www.imf.org/external/pubs/ft/reo/2014/apd/eng/c2_0414.pdf].

¹⁶ Data pertaining to 80 companies under the BSE 100 Index have been used excluding banks and non-banking finance companies.

mega projects need not raise a lot of resources while satisfying their equity contributions. In a typical double leveraging, a holding company raises debt on its balance sheet and infuses it as equity in SPVs. From the lenders' perspective, a debt-to-equity ratio of 2:1 at the holding company level could transform into a leverage of 8:1 at the SPV level. While there could be some merit in such practices, risk assessments by banks need to capture this effectively.

Implications of pledging of shares by promoters

3.33 The December 2013 FSR raised certain concerns over pledging of shares by promoters. This report examines the issue further from the lenders' perspective. A majority of Indian companies are family owned/controlled, as substantial levels of promoter shareholding are concentrated within the family hold (Table 3.3). The promoter shares can be significant collateral for a typical company if it wants to expand leverage. Pledging of shares is practiced in other advanced economies too, but it has taken a significantly different form in India.¹⁷ In the case of a typical Indian company, the promoters pledge shares not for funding 'outside' business ventures but for the company itself. By pledging shares, the promoters have no personal liability other than to the extent of their pledged shares. In some instances the shares pledged by unscrupulous promoters could go down in value and the promoters may not mind losing control of the company as there is a possibility of diversion of funds before the share prices collapse.¹⁸ While a lender has the option of selling the shares when prices fall and hit a point that can be called a default event, this can still have impact on minority shareholders through market impact costs, as with the invoking of the pledge, the pledged shares will have to be sold immediately.

Table: 3.3: Industry-wise position on proportion of promoters' pledged shares (as of March 2014)

(in per cent)

Sector	Indian Promoters	Foreign Promoters	Total Promoters' Holding	Promoters' Ownership Pledged
Banks	49.0	0.7	49.7	0.1
Engineering	35.8	0.5	36.3	11.2
Financial Services	47.4	1.1	48.4	7.6
FMCG	27.9	3.2	31.1	11.7
Infrastructure	69.8	1.1	70.9	14.7
Information Technology	43.0	4.9	47.9	11.2
Manufacturing	50.5	7.0	57.5	18.1
Media and Entertainment	44.3	5.2	49.4	24.9
Petrochemicals	54.8	5.3	60.1	8.7
Pharmaceuticals	47.1	6.0	53.1	5.4
Services	46.3	9.7	56.1	25.5
Telecommunication	51.4	5.8	57.3	12.8
Miscellaneous	53.1	2.8	55.9	12.6
Total	51.6	4.7	56.3	14.2

Source: National Stock Exchange.

3.34 In view of the prevalence of promoters pledging a substantial portion of their shares, the resultant leverage could be a concern not only for shareholders but also for the health of the financial system. This issue calls for a closer examination, especially in the current scenario of buoyancy in stock prices wherein the collateral in the form of pledged shares may appear to justify higher leverage. In this regard, the fundamental question is one related to implications from a company's perspective of the practice wherein a company's own shares can be pledged to raise debt on its balance sheet.

Move towards a diversified banking system in India

3.35 The final guidelines for setting up 'Payments Banks'¹⁹ and 'Small Finance Banks'²⁰ have been issued

¹⁷ For example, company executives in the US do pledge shares to collateralise loans to fund 'outside' business ventures and prior purchase of shares of the company (although many large companies prohibit their executives or directors from such practices). The Institutional Shareholder Services Inc. (ISS), supposedly the world's leading corporate governance solution provider, has its policy that states 'pledging of company stock in any amount as collateral for a loan is not a responsible use of equity'.

¹⁸ This might be viewed as promoters having more skin in the company, but many corporate accounting scams have revealed the vulnerabilities in this view.

¹⁹ RBI (2014b), "Guidelines for Licensing of Payments Banks", November 27 [available at: http://rbi.org.in/scripts/BS_PressReleaseDisplay.aspx?prid=32615].

²⁰ RBI (2014c), "Guidelines for Licensing of Small Finance Banks in the Private Sector, November 27 [available at: http://rbi.org.in/scripts/BS_PressReleaseDisplay.aspx?prid=32614].

on November 27, 2014. The primary objective of setting up these differentiated banks will be to further increase financial inclusion. The payments banks target at providing small savings accounts and payments/remittance services to the migrant labour workforce, low income households and small businesses by enabling high volume-low value transactions in deposits and payments/remittance services in a secured technology-driven environment. On the other hand, the small finance banks shall help in provision of savings vehicles primarily to unserved and underserved sections of the population and supply of credit to small business units, small and marginal farmers, micro and small industries, and other unorganised sector entities, through 'high technology-low cost' operations.

3.36 While a small finance bank will engage in basic lending activities, a payments bank will be limited to only accepting deposits up to a maximum of ₹100,000 per individual customer. Further, the small finance banks could also undertake other non-risk sharing simple financial services such as distribution of mutual fund units and insurance and pension products. They can also become category II authorised dealers in the foreign exchange business for clients' requirements. The scope of activities for payment banks on the other hand will require them to maintain a minimum 75 per cent of demand deposit balances in SLR securities with a maturity up to one year, besides maintaining Cash Reserve Ratio (CRR) requirements. They will be allowed to deposit a maximum of 25 per cent in other SCBs for operational purposes and liquidity management.

Asset reconstruction companies (ARCs)

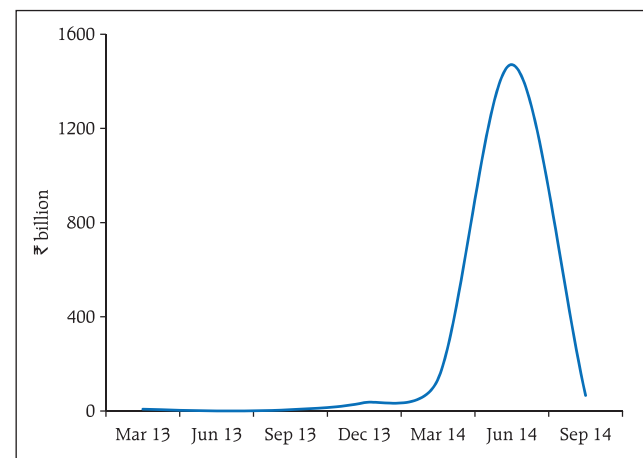
3.37 In view of sudden spurt in sale of NPAs by banks (mainly the PSBs facing asset quality pressures) to ARCs during recent quarters, the previous FSR had highlighted certain aspects related to the functioning of ARCs and the need for a review of the regulatory framework for the sector. A well capitalised and

efficient ARC sector may play an important role in the coming years in reconstruction and resolution of stressed assets. There are 14 ARCs currently functioning in India, out of which two have majority ownership by public sector institutions, six have shareholding which is a mix of the public and private sectors (including foreign institutions), while the remaining six are fully owned by the private sector. Indian banks, both public sector and privately owned, have a significant level of ownership stake in ARCs. With further opening up of the economy, it is expected that the ARC sector will attract substantial fresh foreign investments.²¹

Impact of changes in regulatory norms

3.38 ARCs have witnessed very high growth in recent times riding on the business opportunities arising out of a high level of NPAs in the banking sector. The fourth quarter of the previous financial year (2013-14) and the first quarter of 2014-15 saw a surge in their asset acquisition, with a number of transactions being closed at aggressive prices. The quarter ended September 30, 2014 however, witnessed a sharp decline in acquisition (Chart 3.9).

Chart 3.9: Amount of assets sold by banks to ARCs



Source: RBI supervisory returns.

²¹ As on date, only one of the 14 ARCs has received foreign direct investment (FDI) to the level of 49 per cent.

3.39 The fall in asset acquisition by ARCs during the last quarter may have been partly due to the revised regulations introduced by the Reserve Bank in August 2014. The revision of regulations enhanced 'skin in the game' for ARCs by mandating increased investment in security receipts (SRs) from 5 per cent to 15 per cent, linking the calculation of management fee with the net asset value (NAV) of SRs rather than the outstanding SRs issued as hitherto. The rationale behind these regulatory changes was to incentivise realisation and thereby expediting the process of recoveries/restructuring as NAV of SRs is calculated on the basis of the likely rate of recovery of stressed assets. With the regulatory changes effected in August 2014, ARCs will need to focus on actual redeeming of security receipts as it is no longer possible for them to base their profit model on the basis of management fees (details in Box 3.2). In the near term, ARCs may find it difficult to align their pricing to the expectations of the selling banks and the selling banks also may

not have yet reconciled to a realistic sale price expectation for the assets that they want to offload, resulting in the reduction in sales during the second quarter ended September 2014.

3.40 Some other regulatory measures introduced in the guidelines for ARCs, *inter alia*, are greater disclosures on the part of ARCs, membership in the Joint Lenders' Forum (JLF) in order to participate in a corrective action plan for restructuring stressed assets, lowering the threshold level to enforce the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act, providing more time to ARCs to conduct due diligence on stressed assets on the auction block, a shorter period for valuation of SRs and a shorter planning period for reconstruction. It is expected that a greater degree of transparency in the sector will support its long term sustainability as an effective institutional response to controlling NPAs.

Box 3.2: Important Regulatory and Supervisory Measures

Dealing with domestic systemically important banks (D-SIBs): Based on the internationally agreed reform measures, the framework for dealing with D-SIBs in India was issued in July 2014. The assessment methodology incorporates major indicator categories: size, interconnectedness, substitutability and complexity. Based on their systemic importance scores in ascending order, banks are slotted into four different buckets and will be required to have additional CET1 capital ranging from 0.20 per cent to 0.80 per cent of risk-weighted assets depending on the bucket that they are slotted into. The computation of systemic importance scores will be carried out at yearly intervals and the banks classified as D-SIBs will be disclosed in August every year starting from 2015.

Capital and provisioning requirements for bank exposures to entities with unhedged foreign currency exposure: Corporates' unhedged foreign currency exposures have been an area of concern not only for individual corporates but also for the financial system as a whole. The final guidelines, issued in January 2014,

provide a methodology to be adopted by banks to compute incremental provisioning and capital requirements. More specifically, the incremental provisioning requirements are to be calculated as per the ratio of likely loss due to foreign exchange movement to a company's earnings and depreciation and incremental capital will need to be provided accordingly. It is expected that these measures will incentivise corporates to hedge their foreign currency exposure and also enable banks to develop capabilities to measure and manage currency-induced risks.

Capital requirements for bank exposures to Central Counterparties (CCPs): In order to promote central clearing through well managed CCPs, in January 2014 banks were advised that their clearing exposure to a Qualifying CCP (QCCP) would be kept outside of the exposure ceiling of 15 per cent of its capital funds applicable to a single counterparty. Other exposures to QCCPs such as loans, credit lines, investments in the capital of CCP, liquidity facilities, *etc.* will continue to be

(Contd...)

within the existing exposure ceiling of 15 per cent of capital funds to a single counterparty. However, all exposures of a bank to a non-QCCP should be within this exposure ceiling of 15 per cent.

Countercyclical capital buffer: Taking into consideration the evolution of the Indian economy and other relevant factors including the BCBS document on this aspect, a countercyclical capital buffer (CCB) was prescribed for banks that in addition to their private sector lending, takes into account other relevant factors such as the incremental C-D ratio for a moving period of three years (along with its correlation with the credit-to-GDP gap and GNPA growth), the industry outlook assessment index (along with its correlation with GNPA growth) and interest coverage ratio (along with its correlation with the credit-to-GDP gap). Decisions on CCB may be pre-announced with a lead time of four quarters. The lower threshold (L) where the CCB is activated was recommended at 3 percentage points of the credit-to-GDP gap, provided its relationship with GNPA remains significant and the upper threshold (H) where the CCB is at its maximum was stipulated at 15 percentage points of the credit-to-GDP gap.

Revitalising distressed assets: A framework for revitalising distressed assets in the economy was operationalised by the Reserve Bank with effect from January 2014. In essence, the framework outlines a corrective action plan that will incentivise an early identification of problem accounts which are considered viable and their timely restructuring and taking prompt steps for recovery or sale of unviable accounts. The salient features of the framework include: a) A Central Repository of Information on Large Credits (CRILC) has been set up to collect, store and disseminate credit data with respect to borrowers having aggregate fund-based and non-fund based exposure of ₹50 million and above, b) All commercial banks are required to mandatorily report their credit information on their borrowers/customers, c) NBFC-ND-SI, NBFCs-D and all NBFC-factors (notified NBFCs, for short) are also required to furnish such information, d) Banks were advised to furnish details of all current accounts with outstanding balance (debit or credit) of ₹10 million and above, and e) Banks are required to monitor stress in borrowal accounts through three categories of special mention accounts (SMAs).

Liquidity Coverage Ratio (LCR): Taking into account the final guidelines issued by BCBS, the Reserve Bank issued its final guidelines on LCR, Liquidity Risk Monitoring Tools and LCR Disclosure Standards' in June 2014, keeping in view country-specific considerations as well. Therefore, besides the usual phase-in arrangements and definitional aspects, the guidelines by the Reserve Bank also consider the range of high quality liquid assets (HQLAs) available in Indian financial markets and their liquidity features. As a result, investment in government securities to the extent of 2 per cent of NDTL was allowed to be included as level 1 HQLAs. Subsequently, banks have now (with effect from January 1, 2015) been permitted to reckon government securities held by them up to another 5 per cent of their NDTL within the mandatory SLR requirement as level 1 HQLAs. Further, eligible common equity shares with 50 per cent haircut have been allowed to be included as level 2B HQLAs. Liquidity risk monitoring tools have also been suitably prescribed in RBI's standards. Accordingly, four additional returns have been prescribed for banks: the LCR, LCR by significant currencies, available unencumbered assets, funding concentration and other information on liquidity by banks.

Sale of NPAs to Asset Reconstruction Companies (ARCs): In February 2014, as part of the Framework for Revitalising Distressed Assets in the Economy, banks have been allowed to: a) Reverse excess provision on sale of NPAs to profit and loss account to the extent of cash received on account of sale of NPAs is more than the net book value of the NPAs, b) Amortise the loss on sale of NPAs to ARCs where the sale consideration is less than net book value (with regard to NPAs sold up to March 31, 2015) over a period of two years, c) Sell financial assets to Securitisation/Reconstruction Companies (SCs/RCs) which are reported as SMA-2 by the bank/FI to CRILC, and d) Use countercyclical/floating provisions for meeting any shortfall on sale of NPAs (*i.e.*, when the sale is at a price below the net book value). These measures are aimed at incentivising banks to sell their NPAs to SCs/RCs, who in turn are expected to act as a supportive system for stressed asset management with greater emphasis on asset reconstruction.

(Contd...)

Depositor Education and Awareness (DEA) Fund Scheme, 2014: Pursuant to the enactment of the Banking Laws (Amendment) Act, 2012, a separate section has been inserted in the Banking Regulation Act, 1949 relating to the Depositor Education and Awareness (DEA) Fund. As per the scheme, which is applicable to all commercial and co-operative banks in the country, the amounts to be credited to the DEA Fund shall be the credit balance in any deposit account maintained with a bank which has not been operated for ten years or more, or any amount remaining unclaimed for ten years or more. The bank shall calculate the cumulative balances in all such accounts, as on the day prior to the effective date and transfer the amount to the DEA Fund on the last working day of subsequent month along with the accrued interest. The DEA Fund will be utilised for promoting depositors' interest and for such other purposes which may be necessary for promoting depositors' interests as specified by the Reserve Bank from time to time.

Draft guidelines for differentiated bank licences: The final guidelines on payments banks and small banks have been issued by the Reserve Bank (paragraphs 3.35 and 3.36).

Developments in cross-border supervision:

- *Basel core principles:* In compliance with the FSAP (2011) assessment of the Reserve Bank as 'Materially Non-compliant' in respect of three Basel Core Principles (BCP) which include BCP 25 (Revised Principle 13) on 'Home-Host relationships', the Reserve Bank has made significant progress regarding supervisory information sharing and cooperation with jurisdictions where Indian banks are operating. As

part of this process, the Reserve Bank has already entered into 20 Memoranda of Understanding (MoU) and one Letter for Supervisory Co-operation with overseas regulators/supervisors.

- *Supervisory colleges:* With a view to improving cooperation and information exchange between home and host supervisors, the Reserve Bank arranged a supervisory college with respect to two major Indian banks in 2013-14 (Bank of Baroda and Bank of India). Supervisory colleges were hosted earlier for State Bank of India and ICICI Bank Limited in 2012-13.
- *Inspection of overseas branches/subsidiaries of Indian banks:* Global operations of Indian banks are spread across 54 countries. In order to assess the financial position, systems and control of overseas branches, an inspection of eight banks in five overseas jurisdictions covering almost 60 per cent of the total overseas assets of Indian banks was undertaken in 2012-13. In 2013-14, an additional six banks in six jurisdictions covering another 20 per cent of the asset ownership were inspected.

Appointing NBFCs as Business Correspondents: To hasten financial inclusion, the Reserve Bank has undertaken certain measures including allowing commercial banks to appoint NBFCs as Business Correspondents (BCs) (only NBFCs-ND are eligible to act as banks' BCs). While appointing NBFCs as BCs, banks have to ensure that their funds shouldn't co-mingle with those of the NBFCs. The banks also have to restrict NBFCs-ND while functioning as BCs from adopting practices such as offering savings or remittance functions only to their own customers and avoiding the forced bundling of services offered by them and the bank.

Development financial institutions: Dependence on special funding dispensations

3.41 Development financial institutions (DFIs) like National Bank for Agriculture and Rural Development (NABARD), Small Industries Development Bank of India (SIDBI) and National Housing Bank (NHB),

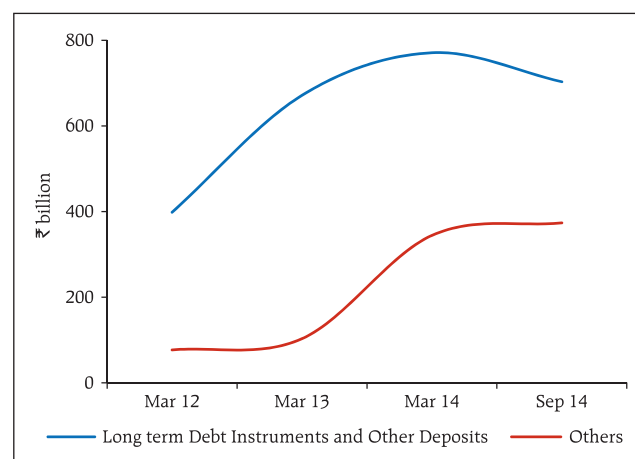
among others have been playing an important role in the refinancing needs of banks and financial institutions in niche sectors. The banks subscribe to long term debt instruments issued by these institutions and also avail refinance facilities from them. However, certain peculiar features in the

funding arrangements of DFIs may need a review in the evolving regulatory and business scenario, especially those pertaining to mandated contributions by banks to some special funds like the Rural Infrastructure Development Fund (RIDF).²² The RIDF and certain other special funds, mainly in the nature of refinance funds, have been established within these DFIs for providing financial assistance to sectors such as micro, small and medium enterprises (MSME) and housing, and to institutions such as co-operative banks and regional rural banks (RRBs). These funds are growing rapidly and now utilise a major portion of shortfalls of the priority sector lending of banks. The banking sector's total investment in long term bonds and special funds taken together amounted to over ₹ 1 trillion as of September 2014. Simultaneously, outstanding loans and advances given by DFIs to the banking sector were over ₹800 billion during the same period. This indicates towards a possibility that a substantial amount of funds originally dedicated by banks for special purposes are getting back on to their balance sheets (Charts 3.10 and 3.11).

Financial inclusion efforts by banks

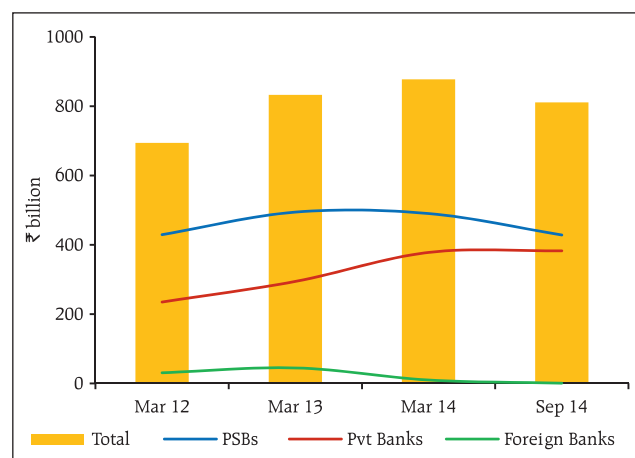
3.42 The Reserve Bank had adopted financial inclusion as one of its major projects in January 2010. Subsequently, the financial inclusion initiative is being led by a technical group on financial Inclusion and financial literacy, under the FSDC sub-committee, involving all financial sector regulators and other government and non-government agencies. Banks have been advised to devise financial inclusion plans (FIPs) congruent with their business strategies and comparative advantages to make them an integral part of their corporate business plans. The initiative included targets required to be set by banks for opening banking outlets, Business Correspondent (BC) outlets opened in urban locations, opening of basic savings bank deposit accounts (BSBDAs), overdraft

Chart 3.10: Banking sector investment²³ in DFIs



Source: RBI supervisory returns and staff calculations.

Chart 3.11: Loans and advances given by DFIs to the banking sector



Source: RBI supervisory returns and staff calculations.

²² RIDF was established by the government and is managed by NABARD.

²³ Investments refer to subscription to long term bonds, deposits in special funds and other deposits. They do not include investments in equity, short term money market instruments and loans and advances.

(OD) facility availed in BSBDA and farm and non-farm credit such as Kisan Credit Cards/ General Credit Cards (KCCs/GCCs) transactions in (Business Correspondent – Information and Communication Technology) (BC-ICT) accounts. Some important points on progress made during the first half under the financial inclusion plan for 2014-15 are provided given in Box 3.3.

Convergence with the Pradhan Mantri Jan Dhan Yojana (PMJDY)²⁴

3.43 The objectives of PMJDY launched by the Government of India are mostly in sync with the financial inclusion objectives being advocated by the Reserve Bank. The implementation plan for PMJDY leverages on the policies laid down by the Reserve Bank under financial inclusion. The comprehensive FIP format devised by the Reserve Bank captures the required data which is being used by banks to report on the progress made under PMJDY also.

3.44 Going forward banks will have to revise their targets set under FIPs so as to match with the targets

allocated to them by the government under PMJDY. The timeline for providing banking services in villages with populations below 2,000 under the roadmap may be advanced from March 2016 to August 2015. With revised targets for opening of basic bank accounts in place, banks will have to ensure opening of at least one bank account in each household by January 26, 2015.

3.45 While offering an overdraft facility of ₹5000, banks will need to follow proper due diligence and satisfactory operations in the account for six months.²⁵ In addition, banks are advised to undertake financial awareness campaigns in association with IBA so as to educate customers with regard to the facilities offered under the accounts opened under PMJDY.

Extending PMJDY to insurance and pension services

3.46 Given the low levels of penetration of insurance and pension, there is a case for subsequently extending or replicating a project on the lines of PMJDY, to include the provision of insurance and pension services for the common man.

Box 3.3: Financial Inclusion Plan: Progress up to September 2014

Progress made by domestic public and private sector banks (including RRBs) under their financial inclusion plan for the six month period from April 2014 to September 2014 includes:

An increase of 62,948 banking outlets during the current half year taking the total number of banking outlets to 446,752 as at the end of September 2014. BSBDA reached 305 million for the half year ended September 2014 showing an increase of 62 million accounts during this period. There was considerable increase in the opening of BSBDA during August/September 2014 in view of government's initiative under the *Pradhan Mantri Jan Dhan Yojana* (PMJDY).

Nearly 57 million accounts had been opened under PMJDY as at the end of September 2014. BC-ICT transactions in BSBDA showed steady progress with 220 million transactions for the half year ended September 2014 as against 329 million transactions recorded for year ended March 2014.

KCCs which reflect flow of credit towards farm sector entrepreneurial activities increased by 1.2 million during the half year ended September 2014. GCCs which reflect flow of credit towards non-farm sector entrepreneurial activities increased by 1.3 million during the half year ended September 2014. As at end September 2014, 8.8 million accounts were outstanding with a balance of ₹1,165 billion.

²⁴ A comprehensive financial inclusion scheme launched by the Prime Minister in August 2014

²⁵ During the half year ended September 2014, 547,000 new BSBDA holders availed of the OD facility. However, as against the total BSBDA of 305 million, only 6.6 million account holders have availed of the inbuilt OD facility so far.

Regulation of securities market

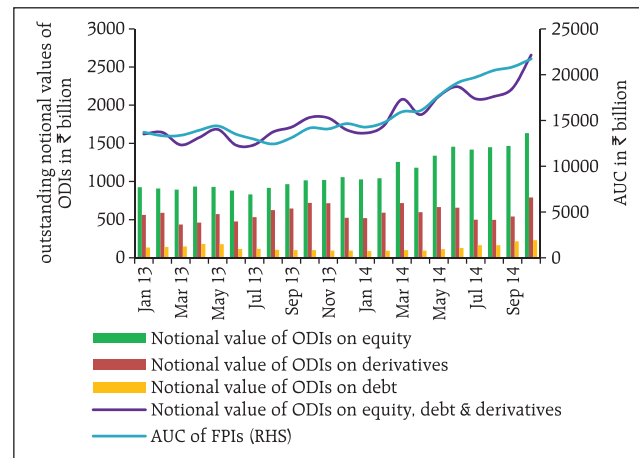
Trends in offshore derivatives instruments (ODIs)

3.47 Indian stock markets have seen rapid growth during the last 2-3 quarters, reflecting the confidence of investors in the fundamental strengths and prospects of the Indian economy. While the participation of the retail investor base still remains comparatively narrow and shallow, the potential and performance in terms of returns delivered by India's stock markets have been attracting substantial amounts of foreign investments through offshore derivatives instruments (ODIs).²⁶

3.48 While foreign participation in Indian stock markets adds to the depth and liquidity, it also increases the risks of sudden episodes of heightened volatility due to several global and domestic factors. During the current phase of high growth in Indian stock market valuations, investments through ODIs also saw rapid growth and the notional values and assets under custody touched the highest levels in October 2014 (since 2008)(Chart 3.12).

3.49 The previous FSR had covered the major changes in the regulatory framework for foreign portfolio investors (FPIs) effected by the Securities and Exchange Board of India (SEBI) which was aimed at, among other things, tightening the 'know your client' norms for issuance of ODIs. The regulations barred 'unregulated' foreign funds from dealing in ODIs even though their investment managers were under the regulation of their concerned regulators. The regulations for FPIs have been further strengthened with respect to requirements that the entities subscribing to ODIs shall be from the countries and jurisdictions which are members of relevant international standards setting bodies like International Organization of Securities Commissions

Chart 3.12: Trends in offshore derivative instruments



Source: SEBI.

(IOSCO) and Bank for International Settlements (BIS) and signatories to relevant multilateral and bilateral Memoranda of Understanding (MoUs) with SEBI. Subscription to ODIs from residents in countries identified in the public statement of the Financial Action Task Force (FATF) has been prohibited as compliance with international regulations for Anti-Money Laundering and Combating the Financing of Terrorism (AML/CFT).²⁷ Entities having opaque

²⁶ Foreign investors can take exposure in securities that are listed or proposed to be listed on any recognised stock exchange in India through offshore derivatives instruments (ODIs). These instruments are issued by registered foreign portfolio investors (FPIs) to persons regulated by an appropriate foreign regulatory authority subject to compliance with 'know your client' norms.

²⁷ SEBI (2014), "Conditions for issuance of Offshore Derivative Instruments under SEBI (Foreign Portfolio Investor) Regulations, 2014", Circular, November 24 [available at: http://www.sebi.gov.in/cms/sebi_data/attachdocs/1416827082538.pdf].

structures have been prohibited from subscribing to ODIs. Further the investment restrictions applicable to FPIs which require that the purchase of equity shares of each company by a single FPI or an investor group shall be below 10 per cent of the total issued capital of an Indian company, have been made applicable to the ODIs also.

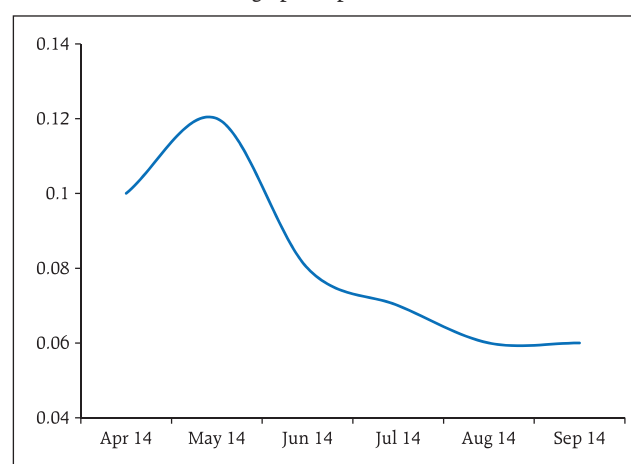
Faster growth in the derivatives segment of equity markets

3.50 The previous FSR had raised the importance of trends showing higher growth in the volumes of equity derivatives as compared to that in cash market segments. The ratio of turnover of cash markets to that of derivatives markets continued its declining trend during the first six months of the current financial year 2014-15 (Chart 3.13).

Systemic risks from mutual funds: The Indian context

3.51 The Global Financial Stability Report (GFSR) (October 2014) observed that since 2007, mutual funds (MFs), exchange traded funds (ETFs) and households have become the largest owners of US corporate and foreign bonds, accounting for 30 per cent of the total holdings. Globally, from a financial stability perspective, credit intermediation through asset managers and markets has certain advantages over that through banks, as the investment risk is borne largely by investors and the liquidity is provided mostly by markets. However, funds investing in credit instruments have a number of features that could result in elevated financial stability risks. The previous FSR highlighted the structural characteristics of the Indian mutual fund industry which make it less prone to financial stability risks with appropriate fencing provided by SEBI regulations. Furthermore, retail participation in the mutual fund industry is low as typically corporates have a major share in the total Asset under Management (AuM) which is around 47 per cent. In addition, retail investors exhibit more 'sticky' behaviour in terms of holding to investments made in mutual funds.

Chart 3.13: Ratio of turnover in the cash market to that of the derivatives market
(during April-September 2014)



Source: SEBI.

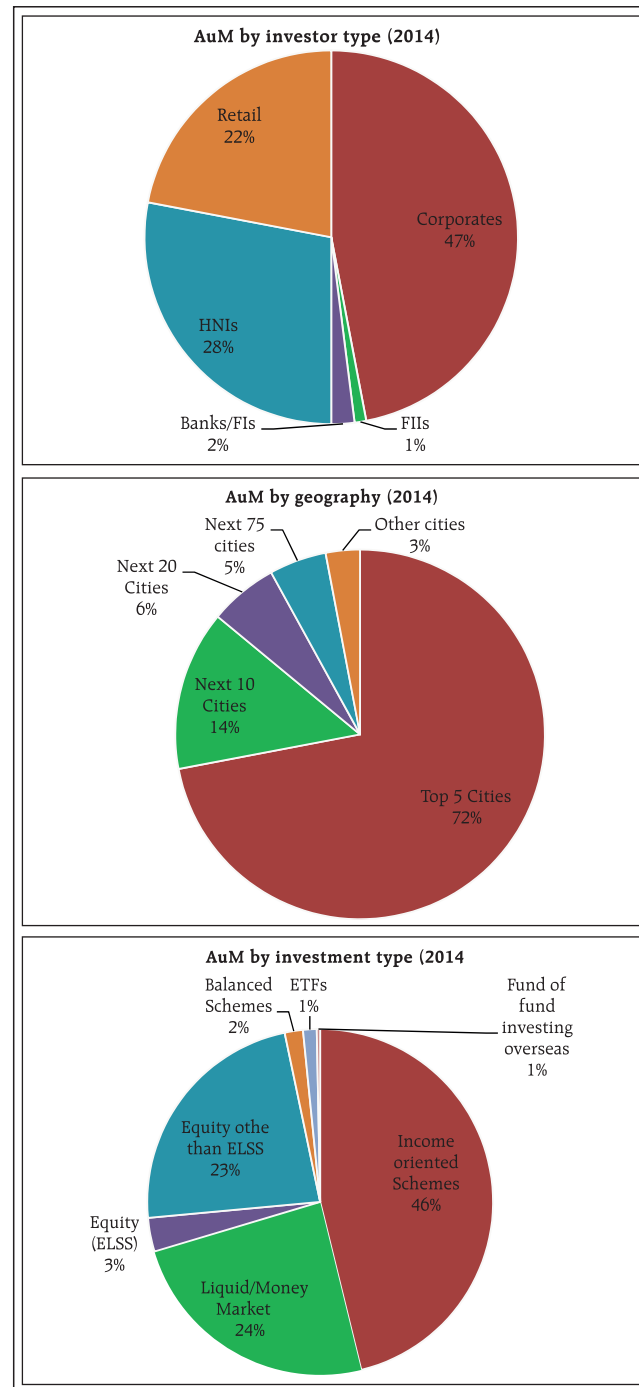
Holding pattern in the mutual fund industry

3.52 Across the globe, there is rich diversity in the mutual fund sector as the asset management industry offers a mix of traditional and alternative fund products to a wide and diverse investor space covering banks, corporate entities, insurance funds, pension funds, sovereign wealth funds (SWFs) and high net worth individuals (HNIs)/retail investors. The spread of Indian asset management is comparatively limited and concentrated in terms of investor categories, investment products and geographical reach (Chart 3.14).

3.53 Corporates hold close to half of the total AuM followed by HNIs and retail investors. The market is highly concentrated as the five largest metropolitan cities account for an almost three-fourth share of total AuM. While the range of investment products and fund schemes has expanded over the years, income oriented schemes attract a major share of investments followed by the liquid/money market and growth oriented schemes. It has been observed that in growth (equity) oriented schemes a major part of the investment for the long term is by retail investors, as compared to other investor categories.

3.54 The GFSR (October 2014), observed that the risk of a run may be intensified by the increased holdings of mutual funds.²⁸ Shares of different investors in composition of equity and non-equity AuM in 2014 in different tenure holding baskets ranging from extremely short term to long term, indicates that in the Indian context retail investors exhibit a tendency to hold mutual fund investments for longer durations in the case of both equity as well as non-equity investments (Charts 3.15 and 3.16). This tendency of retail investors may also reveal their vulnerability in falling behind the market when there is a reversal in trend due to any reason, including heavy selling by corporate or institutional investors.

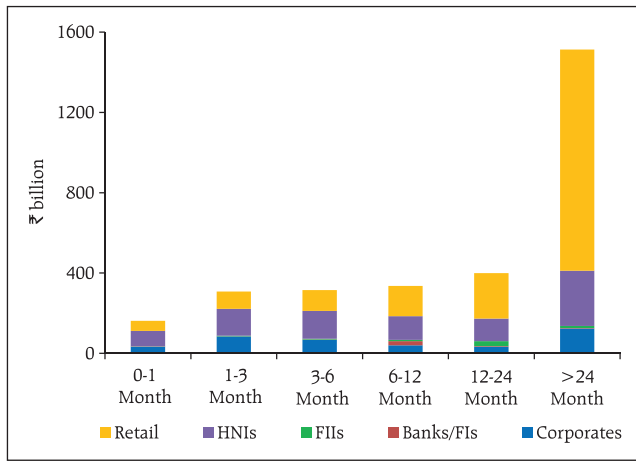
Chart 3.14: Distribution of AuM of mutual funds in India, by investor type, investment products and geographical reach



Source: SEBI.

²⁸ Qi, Chen, Itay Goldstein, and Wei Jiang. 2010. "Payoff Complementarities and Financial Fragility: Evidence from Mutual Fund Outflows." *Journal of Financial Economics* 97 (2): 239–262

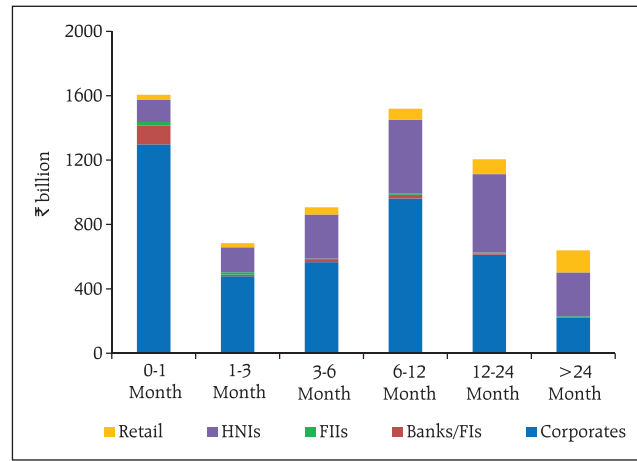
Chart 3.15: Equity AuM composition by investors (duration-wise)



Note: *Data as on September 30, 2014. HNIs defined as individuals investing ₹0.5 million and above.

Source: SEBI, AMFI.

Chart 3.16: Non-equity AuM composition by investors (duration-wise)



Note: *As on September 30, 2014. HNIs defined as individuals investing ₹0.5 million and above.

Source: SEBI, AMFI.

However, the principle of fair valuation adopted by MFs as per SEBI's directives in February 2012 ensures fair treatment to all investors, existing as well as those seeking to purchase or redeem units of MF schemes. Adoption of this principle takes away the incentive from investors to redeem prior to other investors, thereby reducing the redemption pressure on the scheme and risk of a run.

Concentration in equity portfolio holdings in mutual funds across schemes by AMCs

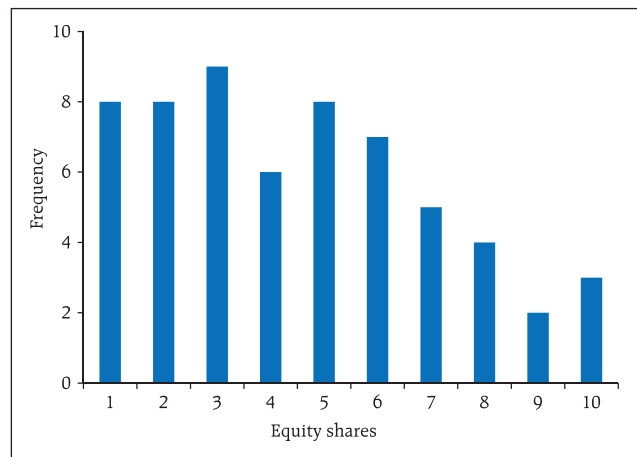
3.55 During the half year from April 2014 to September 2014, deployment in equity by mutual funds has surged about 50 per cent. There are 41 AMCs having AuM of ₹9,594.14 billion and the distribution indicates a high degree of concentration in the hands of a few AMCs, under a Pareto 80-20 principle. An analysis of portfolio holdings in equity of the top ten AMCs²⁹ along with their top ten holdings in equity stocks shows that the portfolio holdings of AMCs comprise quite a few common stocks indicating preference towards a select group of stocks (Table 3.4 and Chart 3.17).

Table 3.4: Select indicators on concentration in the Indian mutual fund industry

Equity AuM as percentage of total AuM	31.6
Top-10 AMCs equity AuM as percentage of total equity AuM	77.7
Top-10 stocks in each of top-10 AMCs/Total AuM of top-10 AMCs	30.7
AuM of top-10 stocks overall as percentage of total equity AuM of top-10 AMCs	22.8
Share of equity AuM of top-4 AMCs as percentage of total equity AuM	49.0

Source: AMCs.

Chart 3.17: Frequency distribution of commonly held equity shares by top-10 AMCs



Source: AMCs.

²⁹ On the basis of highest Equity AuM holdings as on 30 September, 2014.

3.56 An analysis of the total exposure of top ten AMCs to top ten stocks *vis-à-vis* the weightage of top ten stocks (on the basis of market capitalisation) in the index (CNX Nifty 100) also shows considerable concentration levels in AMCs' equity investments. While top ten stocks account for 46 per cent of the total market capitalisation of the index, the share of top ten stocks in the AuM of top ten AMCs is around 74 per cent, indicating a strong preference towards a select group of most liquid stocks. Although there are regulations limiting the exposure of AMCs/schemes to particular scrip, a significantly high degree of concentration by the mutual fund sector may need to be further monitored from a wider perspective of its implications for stability and developing the securities market.

Financial market infrastructure

3.57 As part of the Committee on Payment and Settlement Systems (CPSS)³⁰ and FSB, the Reserve Bank is committed to implementing the CPSS-IOSCO 'Principles for Financial Market Infrastructure' (PFMIs). On the directions of the FSDC sub-committee, an Inter-Agency Implementation Group (IAIG) comprising members from the Reserve Bank, SEBI and the Forward Markets Commission (FMC) was constituted for monitoring the implementation of PFMIs in India. The Clearing Corporation of India Limited (CCIL) has been identified as an important FMI under the regulation of the Reserve Bank.

Importance of cyber security and possible conflict in priorities of PFMIs

3.58 With increasing use of electronic payments and internet and mobile banking information security and operational reliability challenges have become very important from the financial stability perspective. One of the clauses³¹ under PFMIs

requires that an FMI operator's business continuity plans must 'be designed to ensure that critical information technology (IT) systems can resume operations within two hours following disruptive events' and that there can be 'complete settlement' of transactions 'by the end of the day of the disruption, even in the case of extreme circumstances'. However, a rush to comply with this requirement may compromise the quality and completeness of the analysis of causes and far-reaching effects of any disruption. Restoring all the critical elements of the system may not be practically feasible in the event of a large-scale 'cyber attack' of a serious nature on a country's financial and other types of information network infrastructures. This may also be in conflict with Principle 16 of PFMIs which requires an FMI to safeguard the assets of its participants and minimise the risk of loss, as in the event of a cyber attack priority may need to be given to avoid loss, theft or fraudulent transfer of data related to financial assets and transactions.

Legal entity identifiers for India

3.59 The Reserve Bank of India selected CCIL to act as a local operating unit (LOU) for issuing globally compatible legal entity identifiers (LEIs) in India. Infrastructure in this regard has been set up, and the use of LEI codes is likely to be mandated for OTC derivatives transactions and large borrowers (legal entities) in a phased manner.

Payment and settlement systems

Increasing use of electronic modes of transactions

3.60 The payment and settlement system infrastructure in the country continued to perform without any major disruptions. Development in the system is evidenced by increasing use of electronic modes of transaction settlements. Close to 90 per

³⁰ Now named as the Committee on Payments and Market Infrastructures (CPMI).

³¹ Key consideration under Principle 17 of PFMIs.

cent of the total settlement volumes was done through retail electronic modes as of August 2014. The share of paper-based clearing also declined marginally over the last year (Charts 3.18 and 3.19).

Security issues and risk mitigation measures related to 'card not present' transactions

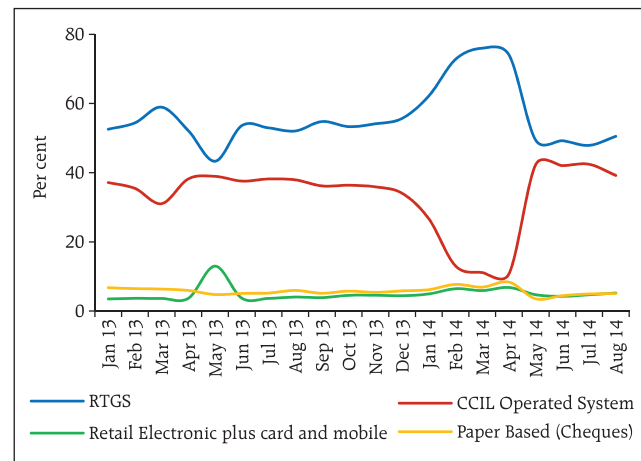
3.61 Reserve Bank's instructions on card transactions' security and risk mitigation, which have been issued from time to time since 2009, mandate the use of an additional factor of authentication (AFA) for all 'card not present' (CNP) transactions. This was earlier applicable to 'card transactions' in India with cards issued by banks in India. Recently, instances came to notice where entities, through adoption of alternate business/payment models, were violating these instructions on 'card not present' transactions which were being effected without the mandated additional authentication/validation even where the underlying transactions were essentially taking place between two residents in India.

3.62 In view of this, instructions were issued to banks advising them that where cards issued by banks in India are used for making 'card not present' payments towards purchase of goods and services provided within the country, such transactions have to be through a bank in India and the transaction should necessarily be settled only in Indian currency in adherence to extant instructions on security of card payments as well as foreign exchange guidelines.

Core settlement guarantee fund, Default Waterfall and Stress Test

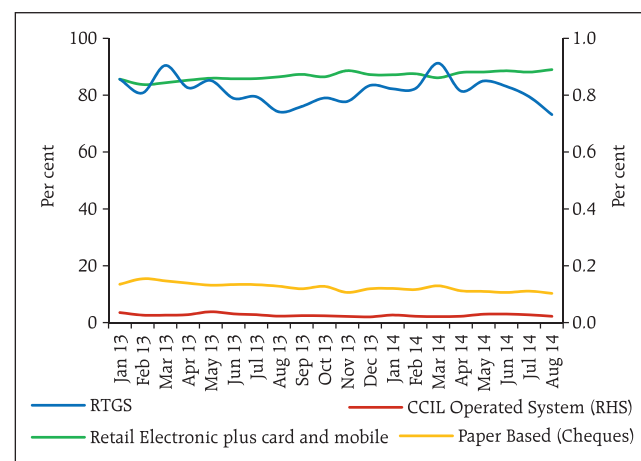
3.63 Continuing with the objective 'to promote orderly and healthy growth of the securities market in India' along with safeguarding the markets from systemic risks, SEBI has introduced a new layer of safety net in the form of 'core settlement guarantee fund' to mitigate risks from possible default in settlement of trades and strengthen risk management framework in the domestic capital markets.

Chart 3.18: Distribution of settlement systems (in value)



Source: RBI.

Chart 3.19: Distribution of settlement systems (in volume)



Source: RBI.

3.64 The new structure aims at enhancing the robustness of the present risk management system of the clearing corporations to enable them to deal with defaults of the clearing members much more effectively. The granular norms related to core settlement guarantee fund (SGF), stress testing and default procedures would bring greater clarity and uniformity as well as align the same with international best practices while enhancing the robustness of the present risk management system in the clearing corporations (Box 3.4).

Box 3.4: SEBI Guidelines on Core SGF, Default Waterfall and Stress Test

SEBI has issued detailed guidelines on Core SGF, Default Waterfall and Stress Test, with the following objectives:

- a) create a core fund (called core settlement guarantee fund), within the SGF, against which no exposure is given and which is readily and unconditionally available to meet settlement obligations of clearing corporation in case of clearing member(s) failing to honour settlement obligation,
- b) align stress testing practices of clearing corporations with FMI principles (norms for stress testing for credit risk, stress testing for liquidity risk and reverse stress testing including frequency and scenarios),
- c) capture in stress testing, the risk due to possible default in settlement of both institutional and non-institutional trades,
- d) harmonise default waterfalls across clearing corporations
- e) limit the liability of non-defaulting members in view of the Basel capital adequacy requirements for exposure towards Central Counterparties (CCPs),
- f) ring-fence each segment of clearing corporation from defaults in other segments, and

- g) bring in uniformity in the stress testing and the risk management practices of different clearing corporations especially with regard to the default of members.

The default waterfall in any segment will generally follow the following order –

- Monies of defaulting member
- Insurance, if any
- Clearing Corporations' (CC) resources (equal to 5 per cent of MRC)
- Core SGF (within it also penalties and then CC to bear loss first to extent of 25 per cent of segment MRC, then pro rata allocation to all contributors)
- Proportion of remaining CC resources (excluding CC contribution to core SGFs of other segments and INR 100 Crore) equal to ratio of segment minimum required corpus (MRC) to sum of MRCs of all segments.
- CC/Stock Exchange contribution to Core SGFs of other segments and remaining CC resources to extent approved
- Capped additional contribution of non defaulting members (pre-specified by CC)
- Pro-rata haircut to pay-outs

Financial safety net: Deposit Insurance and Credit Guarantee Corporation (DICGC)

3.65 A strong deposit insurance system is a necessary component of financial stability arrangements in any jurisdiction. The previous FSRs have highlighted some issues and challenges facing the deposit insurance system in India which include, *inter alia*, those related to the adequacy of the Deposit Insurance Fund and coverage of deposit insurance, apart from ensuring compliance with the Core Principles for Effective Deposit Insurance Systems.³²

3.66 One of the core principles stresses on the requirement for funding (including assured liquidity funding) mechanisms necessary to ensure prompt reimbursement of depositors' claims and for banks to bear the cost of deposit insurance. At present in India, the DICGC maintains three distinct funds/accounts: the Deposit Insurance Fund (DIF), the Credit Guarantee Fund (CGF), and the General fund (GF). Out of these, DIF is primarily used for settlement of claims from depositors and is sourced out of the premium paid by the insured banks and the investment income received from (and reinvested

³² The International Association of Deposit Insurers has concluded the revision of its Core Principles for Effective Deposit Insurance Systems and the Compliance Assessment Methodology, and has submitted them to the Financial Stability Board.

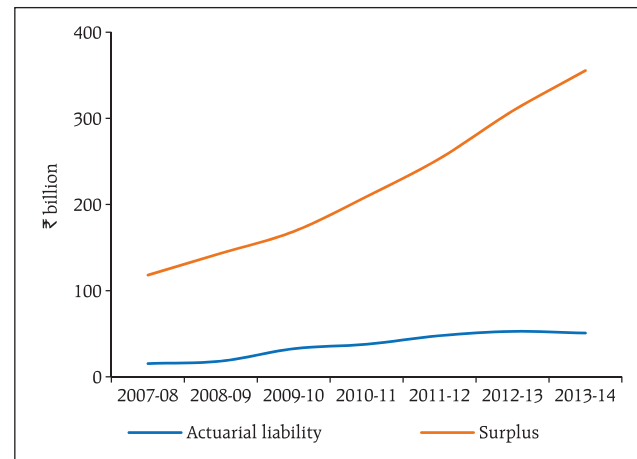
in) central government securities. There is also an inflow of small amounts into this fund out of the recoveries made by the liquidators/administrators/transferee banks. DICGC, thus, builds up its DIF through transfer of excess of income over expenditure each year after payment of income tax. This fund is used for settlement of claims of depositors of banks taken into liquidation/reconstruction/amalgamation. The size of DIF was around ₹441.5 billion as at end-June 2014 (Chart 3.20).

3.67 DIF consists of actuarial liabilities and accumulated surplus. Actuarial liabilities are the claims of depositors paid out from DIF by DICGC over the years and have witnessed a moderate growth at 12 per cent primarily because there was no failure by any major bank during this period. DICGC's liabilities crystallised largely on account of failure of co-operative banks implying some inherent weaknesses in the management of these institutions.³³

Pension sector

3.68 In the coming decades, developing countries like India will grow older much faster and that too at relatively low income levels. The Pension policy in India has traditionally been based on employment contracts and service conditions and has been financed through employer and employee participation. As a result, its coverage has been restricted to the organised sector and a vast majority of the workforce in the unorganised sector has remained outside the formal channels of old age financial support. Therefore, in view of the need for containing fiscal liabilities under control and transiting towards a sustainable pension system in India a product like the National Pension Scheme (NPS) needs to be pushed with greater vigour. While the Pension Fund Regulatory and Development

Chart 3.20: Deposit insurance fund: Surplus and actuarial liabilities



Source: DICGC.

Authority (PFRDA) can take a lead role in generating awareness and disseminating information about NPS. NPS needs to grow into a popular movement where all the stakeholders in the economy need to play an important role.

Inconsistencies in tax treatment of the NPS and other traditional pension systems

3.69 The NPS is voluntary whereas the Employee Provident Fund (EPF) is mandatory. The Employee Provident Fund Organisation (EPFO) is legally mandated and therefore, EPF accounts are maintained by corporates from the point of view of legal liability and guaranteed returns are determined each year by the government. Issues related to seamless portability across corporates and awareness about the product pose further challenges *vis-à-vis* other retirement products. There is a need for clarity regarding tax treatment of NPS as the decision on the EET (Exempt, Exempt, Taxable) status is still pending.

³³ Historically, in the Indian context the possibility of failure of the public sector is remote. Even important private sector banks facing problems have not 'failed' as mergers with other stronger public or private sector banks have been used as a preferred option in the recent past.

Commodity derivatives markets

Initiatives for improving hedger participation in commodity markets

3.70 To improve hedging in the market, the FMC has exempted participants making an early 'pay-in' of commodities to the exchanges from payment of all margins except the mark-to-market margin. Also, the positions taken by members who pre-pay the margin is not to be counted towards position limits and spread margin benefits are also allowed to such participants.

3.71 The computation methodology for open position limits for agricultural and non-agricultural commodities have been revised. In case of agricultural commodities, overall exchange wide gross position limit shall be capped at 50 per cent of the estimated production and imports. For members of the exchange, position limits shall be 10 times of the client level position limit or 20 per cent of the market wide open interest whichever is higher. Client level position limits shall be the numerical position limits

as decided from time to time or 5 per cent of the market-wide open interest whichever is higher. In case of agricultural commodities and agricultural products, the client level position limit shall be limited to 1 per cent of the total production and import. The near month position limits have also been revised for agricultural commodities and have been restricted to 50 per cent of the overall position limits.

3.72 For improving transparency, the commodity futures exchanges have been directed to disclose on their websites, positions of top 10 trading clients in 'buy side' as well as 'sell side' in order of maximum open interest, the hedge position allocated to various hedgers, the delivery intent of the hedgers on a daily basis in an anonymous manner. In addition the exchanges also have to disclose, the pay-in and pay-out of commodities made by top 10 clients including hedgers on their website 10 days after completion of settlement, for the information of the market.